

BEAN BOWL DEVELOPMENT SECTION 26A APPROVAL

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

**Hamilton County, Tennessee
EAXX-455-00-000-1725894722**

Prepared by:
TENNESSEE VALLEY AUTHORITY
Chattanooga, Tennessee

September 2024

For further information, contact:
Susan Housley
NEPA Compliance
Tennessee Valley Authority
1101 Market Street, BR 2C
Chattanooga, TN 37402
E-mail: smalone2@tva.gov

Environmental Assessment and Finding of No Significant Impact

This page intentionally left blank

Introduction and Background

Bean Bowl LLC (the Applicant) has applied for a Shoreline Construction Permit under Section 26a of the Tennessee Valley Authority (TVA) Act to develop approximately 71 acres of private property and 5.6 water-based acres (collectively referred to as the Site) for a master-planned, mixed-use commercial facility and residential community. The Site is located along the Tennessee River waterfront on Nickajack Reservoir, at 1200 Judd Road in Chattanooga, Hamilton County, Tennessee. The Tennessee River and South Chickamauga Creek are adjacent to the Site to the west and north, respectively. The Applicant's mixed-use commercial facility and residential community would include upwards of 700 residences, approximately 78,500 square feet (ft²) of commercial space, community facilities, roads, utilities, community green spaces, a restaurant, a clubhouse, a pool, commercial marina infrastructure including a floating dock, and pedestrian river access.

TVA's action (Proposed Action or Project) includes the approval of the Applicant's request to obtain a Section 26a permit allowing the placement of fill within the 100- and 500-year floodplains and the approval of a commercial marina with floating dock in the reservoir situated along the shoreline. TVA's Section 26a jurisdiction applies to all portions of the Applicant's Site that fall within the 100-year and 500-year floodplains of the Tennessee River and South Chickamauga Creek and to the area of the proposed water-based infrastructure. TVA's jurisdiction area within the Site is approximately 19.1 acres in size, consisting of approximately 13.5 land-based acres and 5.6 water-based acres. TVA does not have Section 26a jurisdiction over the remaining 57.5 land-based acres that would be developed.

To ensure that the potential effects of the Proposed Action are properly analyzed, this Environmental Assessment (EA) addresses resources present within the portions of the Site up to the 500-year floodplain (19.1 acres), along with the footprints of any plot or structure that crosses into the 100- and 500- year floodplains, totaling approximately 28 acres (the Project Area) of the Site. Figure 1 displays the Site location.

The Applicant's proposed master-planned, mixed-use commercial facility and residential community would have approximately 2,700 feet of frontage along the south bank of the Tennessee River and South Chickamauga Creek on the Nickajack Reservoir between Tennessee River miles (TRMs) 467.6 and 468.1 (left descending bank). It would provide access to adjacent or nearby public City of Chattanooga amenities (e.g., Tennessee River Walk, South Chickamauga Greenway, Amnicola Trail, Tennessee River Park, Chickamauga Dam Day Use Area). Current conditions at the Site are characterized by vacant acreage left in the footprint of the former Archer Daniels Midland (ADM)/Central Soya Plant, an active truck maintenance facility, a small network of service roads, and mixed scrub and hardwood forests in the undeveloped northern section of the Site. Prior to the Applicant acquiring the property, TVA had approved mooring cells, a loading and unloading terminal and bank stabilization for the previous owner. The Section 26a permit for these structures was transferred to the Applicant in November 2019.



Figure 1. Project location

Purpose and Need

TVA’s interest in this project arises from its obligations under Section 26a of the TVA Act and its commitment to support economic growth within the Tennessee River Valley region. This Proposed Action would accommodate continued population growth in Hamilton County, provide housing in the historically underserved area north of the City Center, generate additional property-tax revenue for the County and City of Chattanooga, and provide commercial opportunities to reinvigorate a long-neglected industrial site. The Applicant’s purpose and need is to commercially develop a master-planned, mixed-use commercial facility and residential community along the Nickajack Reservoir waterfront in general proximity (an approximately 5-mile radius) to the Chattanooga city-center.

Section 26a of the TVA Act requires TVA approval prior to the construction, operation, or maintenance of any dam, appurtenant works, or other obstructions affecting navigation, flood control, or public lands or reservations across, along, or in the Tennessee River or its tributaries. Thus, TVA’s Section 26a jurisdiction extends to the limits of the Tennessee River watershed. On Nickajack Reservoir that jurisdiction applies to the limits of the 500-year floodplain. Because the proposed development includes activities that would be located within the 500-year floodplain, TVA has Section 26a jurisdiction over portions of the Site and must consider whether to approve or deny the Section 26a permit application.

Proposed Action

Under the Proposed Action, TVA would issue a Section 26a permit for shoreline construction activities, allowing the Applicant to place fill within the 100- and 500-year floodplains of the Tennessee River and South Chickamauga Creek and install 1,150 linear feet of riprap stabilization and commercial marina infrastructure including a floating dock that would provide 71 boat slips along the Nickajack Reservoir shoreline. Figure 2 displays the preliminary master plan for the Applicant’s proposed development. The Proposed Action would facilitate the Applicant’s purpose of developing a master-planned, mixed-use commercial facility and residential community along the Tennessee River waterfront in Chattanooga.

If the Section 26a permit is issued, construction within the Project Area is anticipated to begin within six to eight months of issuance. Clearing within the Project Area is anticipated to occur during winter 2024-2025 or spring 2025.

The Applicant’s master-planned development would be constructed on approximately 71 acres of private property that has historically been used as an industrial site and 5.6 water-based acres along the Tennessee River of Nickajack Reservoir in Chattanooga, Tennessee. Due to the existing topography, preparation for the proposed Project would include balancing cut-and-fill materials, significant grading across the Site, and the placement of onsite fill materials within the 100-year and 500-year floodplains to achieve the necessary topographic elevations and grades that would accommodate the Applicant’s master-planned community. The proposed fill in the floodplains is necessary to accommodate residential lots, roads, two open-sided pavilions, create a paved shared-use path, commercial marina infrastructure, two multi-residential developments, and stabilize a portion of the Tennessee Riverbank with riprap. Issuance of the Section 26a permit would facilitate the Applicant’s proposed development activities by allowing the placement of fill below the existing 100-year flood elevation and within the 100-year and 500-year floodplains of the Tennessee River and South Chickamauga Creek.

The area of TVA's Proposed Action (i.e., Project Area) comprises approximately 28 acres of the Applicant's Site and consists of the Site's water-based acreage, all portions of the Site that are within the 100- and 500-year floodplain areas, and the footprints of any lot or structure that crosses into the 100- and 500- year floodplains (see Figure 2).

Construction activities would include Site grading (including placement of onsite fill material within the 100-year and 500-year floodplains), installation of a shared-use path, roads and utilities, and construction of proposed facilities (including residential units, pavilions, and commercial marina and floating dock). The Applicant has designed the proposed development so that no habitable structures are proposed within the 100-year floodplain following completion of grading work on the Site. The proposed grading of residential lots would also meet the City of Chattanooga Flood Ordinance for Residential Construction. The proposed Project's fill requirements entail placement of approximately 118,348 cubic yards (cy) of soil below the existing 100-year floodplain (+654 cy) at or below an elevation of 659.0 mean feet above mean sea level (amsl). The placement of approximately 51,166 cy (+721 cy) of soil between the existing 100-year and 500-year floodplains at or below an elevation of 665.50 mean feet amsl is also proposed. The avoidance of an archaeological sensitive area would result in 2,750 cy of material being cut from below the 100-year floodplain elevation (+18 cy) and 721 cy being cut from between the 100-year and 500-year floodplain elevations.

All fill that is not cut from the Site would be obtained from a permitted borrow site. Accordingly, total fill placement below the 500-year floodplain would comprise 169,514 cy. Following the completion of Site grading work, all residential lots would have been raised above the 100-year floodplain elevation of 659.0 feet amsl which meets the City of Chattanooga Flood Ordinance for slab-on-grade construction. Six townhome lots, seven single-family lots, and two multi-family condominium lots are proposed below the 500-year floodplain elevation of 665.50 feet amsl which meets the City of Chattanooga Flood Ordinance for slab-on-grade construction. Two open-sided pavilions and all infrastructure associated with the commercial marina would be placed within the 100-year and 500-year floodplains.

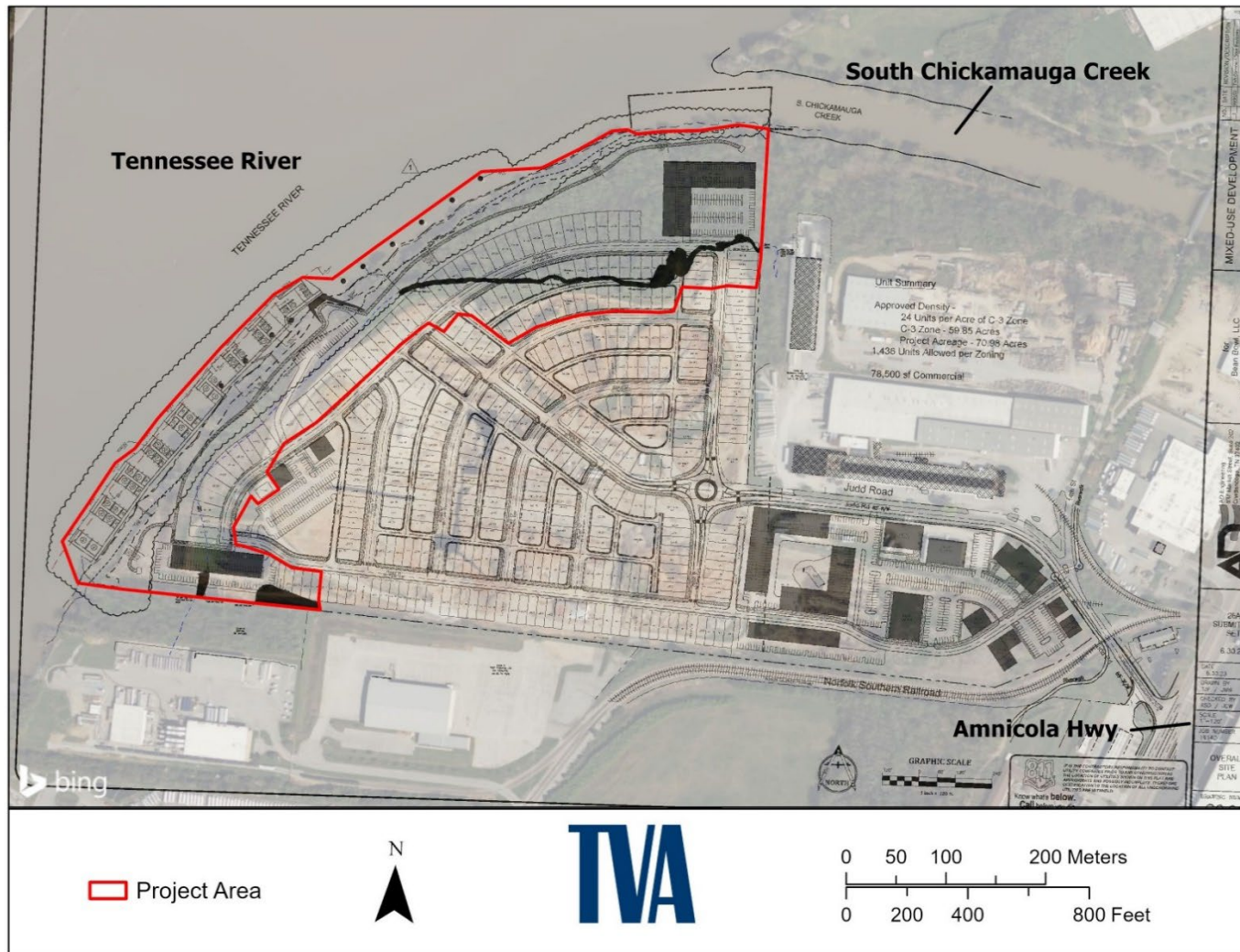


Figure 2. Overview of TVA's Project Area and Applicant's Proposed Development

The Applicant has designed the master-planned, mixed-use commercial facility and residential community to avoid impacts to the Tennessee River to the extent practicable. Unavoidable alterations to the Tennessee River would be required to accommodate the placement of commercial marina infrastructure. Issuance of the Section 26a permit would allow the Applicant to work in and along the Tennessee River adjacent to the Site. Compensatory mitigation would occur for any impacts incurred as a result of these activities, as required by the United States Army Corps of Engineers (USACE) and Tennessee Department of Environment and Conservation (TDEC) permitting conditions.

The Tennessee River flows along the Site's western border, where a series of mooring cells are aligned along the Site's riverbank. Proposed work within and along the Tennessee River includes:

- Utilizing five mooring cells to support boat docks.
- Constructing a floating commercial dock that would extend along a 1,160-linear foot main pier and would encompass an estimated 27,893 ft² (0.64 acres) of river area.
- Dredging approximately 1,150 linear feet between the main pier of the dock and shoreline, encompassing an area of approximately 48,400 ft² (1.12 acres) to accommodate riverbank stabilization activities.
- Creating a debris deflector extending from the shoreline to the existing large, central mooring cell, which would serve to protect docked watercraft from debris. Work would consist of placing fill material armored with gabion baskets on existing land within the floodway and would remain above normal pool elevation. This proposed feature would encompass approximately 3,130 ft² (0.07 acres).
- Creating a main 10-foot wide shared-use path traversing approximately 2,700 linear feet along the shoreline periphery of the Site, encompassing an estimated 27,000 ft² (0.62 acres).
- Creating a lower level/normal pool gangway that would extend approximately 65 linear feet from the floating dock towards the shared use path.
- Creating a high-water gangway extending approximately 105 linear feet from the commercial dock to the main shared-use path.
- Constructing a paved marina lot area on the riverbank near the floating dock. The lot would include parking spaces, a drop-off and service area, and an access road extending from the main development area. This would encompass a total of 16,661 ft² (0.38 acres), of which approximately 4,161 ft² (0.01 acre) would be in the floodway.
- Placing approximately 1,150 linear feet of riprap along the south bank of the Tennessee River to stabilize the areas associated with grading occurring below the 100-year floodplain.

As outlined above, the Section 26a permit would also allow the Applicant to place riprap along approximately 1,150 linear feet of the south bank of the Tennessee River (between TRMs 467 and 469) and install a commercial marina with floating dock and 71 boat slips. As described in the Navigation Section, TVA Navigation and USACE Navigation have reviewed and approved general design parameters of the Applicant's commercial marina with floating dock and boat slips for consistency with the agencies' requirements for navigation and safety.

The Applicant anticipates the Site construction work within the Project Area, including the cut and fill operation and riprap activities and marina construction, would take

approximately 18 to 24 months. The timeframe for overall Site construction is anticipated to take 12 to 18 months to complete, including utilities. Because of the size of the Applicant's proposed development, the Applicant anticipates that vertical buildout could take five to seven years. During the fill and riprap portion of construction, the Applicant anticipates a workforce of 15 to 20 people but could grow to as many as 35 people during utility and paving operations. Vertical construction would start after completion of overall Site construction and would include hundreds of workers in various trades to complete various structures over the anticipated five-to-seven-year buildout. The workforce would likely come from the local and regional pool of contractors.

During the fill and riprap portion of the construction schedule, it is anticipated that 10 to 20 trucks per day would be coming to the Project Area for a duration of two to three months. It is anticipated an additional 20 construction vehicles would be coming to the Project Area per day for maintenance, fueling, and other workforce purposes. During the five-to-seven-year vertical buildout of the overall Site, hundreds of worker vehicles would be likely during peak periods.

Grading to develop road, utility, and landscape infrastructure would be conducted to support the Project. Various grading and construction equipment of the type typically associated with land development and installation of infrastructure would be used (e.g., excavators, bulldozers, skid steer loaders, motor graders, trenchers, scrapers, etc.).

No jurisdictional aquatic resources are present within the land-based portion of the Site boundary pursuant to an Approved Jurisdictional Determination (AJD) issued in 2019 by the USACE and a letter of concurrence issued in October 2019 by TDEC in response to a TDEC Hydrologic Determination (HD) Request submitted by S&ME Inc. in September 2019. The Tennessee River and South Chickamauga Creek, both jurisdictional streams, lie adjacent to the Applicant's property to the west and north, respectively (see the Surface Water Section).

Public and Agency Involvement

Prior to submitting their Section 26a permit application, the Applicant engaged in public and agency outreach regarding the Applicant's proposed Project. This outreach included coordination with TDEC, the City of Chattanooga, S&ME Inc., and the USACE regarding resource surveys and associated permitting.

The Applicant has coordinated with TDEC's Division of Remediation to negotiate a Brownfield Voluntary Agreement, beginning with enrollment of the project site on October 10, 2019. The current property owner and Applicant enrolled in TDEC's Brownfield Voluntary Cleanup Oversight and Assistance Program (VOAP) program prior to, but in anticipation of, submittal of the Section 26a permit application. The enrollment's purpose was to achieve environmental liability relief and to address specified and limited concerns caused by property's predecessor owners, as is intended under Tennessee's Brownfield Act. The Brownfield Voluntary Agreement would in no way affect the Applicant's development plans.

The property was reviewed by Chattanooga-Hamilton County Regional Planning Agency and was approved for a zoning change by Chattanooga's City Council in August 2022. Prior to the zoning being approved, the Applicant provided tours of the property to the City Council member representing this district as well as neighborhood representatives to go over the details of the Applicant's development and address any questions.

During this environmental review, TVA consulted with several federal and state agencies. In compliance with Section 106 of the National Historic Preservation Act (NHPA), TVA consulted with the Tennessee Historic Preservation Office and federally recognized Indian tribes to address potential adverse effects to cultural resources. As part of the consultation process, the Applicant extensively modified their proposed design plans to ensure all ground disturbance would be limited to a depth of less than 1.5 meters in archaeologically sensitive areas. Additional details are provided in the Cultural Resources Section.

Because the Applicant's proposed mixed-use commercial facility and residential community would be partially located within the existing 100-year floodplain, the Applicant is required to meet the City of Chattanooga's floodplain regulations. The applicant provided a No Rise Certification dated 03/27/2024 (Attachment 3). The City reviewed the Applicant's plans and TVA received documentation on 08/30/2024 that the No-Rise review was complete and community acknowledgement has been recommended. See the Floodplains section for additional details.

In accordance with Executive Order (EO) 11988, Floodplain Management and TVA's NEPA procedures, TVA published a Floodplains No Practicable Alternative public notice (Attachment 3) of the proposed fill on its website on July 12, 2024. The comment period ended on July 26, 2024, with no comments received.

In accordance with TVA procedures for Section 26a permit requests for commercial marinas, the Applicant issued a public notice on August 24, 2023, in the Chattanooga Times Free Press. The notice stated that TVA is interested in receiving comments on a requested Section 26a permit from Bean Bowl, LLC for a new commercial marina and associated harbor on Nickajack Reservoir. TVA also published the public notice on its website. The notice initiated a 30-day public comment period ending on September 20, 2023. TVA received three written comments during the stated comment period. The comments expressed opposition to the proposal and raised concerns relating to water navigation, safety, and pollution.

TVA initiated consultation with the United States Fish and Wildlife Service (USFWS) in July 2024 in compliance with Section 7 of the Endangered Species Act (ESA). In their response, on August 15, 2024, the USFWS concurred with TVA's "not likely to adversely affect" findings for certain federally listed species and acknowledged TVA's "no effect" findings for other federally listed species. See the Terrestrial Zoology Section for species-specific details.

TVA and USACE convened several times with the Applicant concerning the lakeward extension of the Applicant's commercial facility on the Tennessee River of Nickajack Reservoir. See the Navigation Section for additional details.

Agency consultation and correspondence documentation is provided in the Attachments.

Related Environmental Reviews

TVA identified the following environmental reviews that are related to the Proposed Action. The contents of these related reviews help describe the affected property and are incorporated by reference as appropriate.

Nickajack Reservoir Land Management Plan - Multiple Reservoir Land Management Plans Final Environmental Impact Statement (2017)

The Nickajack Reservoir Land Management Plan (RLMP) was approved by the TVA Board of Directors on August 23, 2017. The Nickajack RLMP addresses the management of TVA-owned public land surrounding Nickajack Reservoir, and it is one of eight RLMPs reviewed by TVA in the Multiple Reservoirs Land Management Plans Final Environmental Impact Statement (FEIS). The Nickajack RLMP is covered under Volume VI of the FEIS.

In the Multiple RLMPs FEIS, TVA considered two alternatives for managing land around the Nickajack Reservoir. Under Alternative A, or the No Action Alternative, TVA would have continued to use previous land use plans which used older methods of land use planning. Under Alternative B, the Land Use Plan Alternative, TVA would apply the Single Use Parcel Allocation methodology of land use allocation zones that has been used in TVA land plans since 1999. On September 12, 2017, TVA posted in the Federal Register (Volume 82, Number 175) that it was adopting reservoir land management plans for the eight reservoirs, including the Nickajack Reservoir.

Shoreline Management Policy Final Environmental Impact Statement (1998)

TVA's Shoreline Management Policy FEIS was released in November 1998 and was approved by the TVA Board of Directors on April 21, 1999. The Shoreline Management Policy establishes a Valleywide policy to improve the protection of shoreline and aquatic resources while allowing reasonable access to the water.

In the Shoreline Management Policy FEIS, TVA considered seven alternatives for managing residential shoreline development impacts in the Tennessee Valley. The TVA Board adopted a modified Blended Alternative, in which TVA seeks to balance residential shoreline development, recreation use, and resource conservation needs in a way that maintains the quality of life and other important values provided by its reservoir system. The Record of Decision was published in the Federal Register on June 4, 1999 (Volume 64, Number 107). The Proposed Action would be consistent with this policy.

Alternatives

Description of Alternatives

In accordance with guidelines outlined in the National Environmental Policy Act (NEPA), TVA has determined that there are two alternatives for consideration of the proposed Project: Alternative A – the No Action Alternative and Alternative B – the Proposed Action Alternative.

Alternative A – No Action Alternative

Under the No Action Alternative, TVA would not issue Section 26a approval for shoreline construction activities associated with the Applicant's (Bean Bowl LLC) proposed master-planned, mixed-use commercial facility and residential community. To move forward, Bean Bowl LLC's proposed development would need to be redesigned such that no shoreline construction activities (e.g., placement of riprap and installation of floating commercial dock) would occur and no fill would be placed in the 100- and 500-year floodplains of the Tennessee River and South Chickamauga Creek. The No Action Alternative does not meet the Applicant's purpose and need; however, it serves as the baseline for comparison with the Proposed Action Alternative.

Alternative B – Proposed Action Alternative

Under the Proposed Action Alternative, as described above, TVA would issue a Section 26a permit allowing the Applicant to (1) place onsite fill materials within the 100- and 500-year floodplains of the Tennessee River and South Chickamauga Creek and (2) install approximately 1,150 linear feet of riprap and commercial marina infrastructure including a floating dock that would provide 71 boat slips along the Nickajack Reservoir shoreline. By allowing these actions, the Section 26a permit would facilitate the development of the Applicant’s master-planned, mixed-use commercial facility and residential community. Figure 1 displays the location of TVA’s Project Area (approximately 28 acres) in relation to the Applicant’s overall property boundary. TVA has identified Alternative B as the preferred alternative.

Environmental Impacts Evaluated

To ensure that the potential effects of the Proposed Action are properly analyzed, the EA will address resources present within approximately 28 acres (Project Area) of the Applicant’s Site, although TVA’s permitting authority applies to the approximately 16.2 acres up to and within the 500-year floodplain.

TVA prepared this EA to comply with the National Environmental Policy Act (NEPA), regulations of the Council on Environmental Quality (CEQ) at 40 CFR part 1500 (as amended), and TVA’s procedures for implementing NEPA at 18 CFR part 1318. TVA reviewed the Proposed Action and Section 26a permit application and identified all resources present within the Project Area. Many of the potential environmental impacts of this Proposed Action were described in an environmental checklist prepared by TVA in 2024 (see Attachment 1).

In the checklist, TVA documented that the Proposed Action Alternative would not impact farmland because most of the proposed project location has been previously developed for industrial activity. The Proposed Action would not impact endangered, threatened, or special status plant species or habitat for rare plant species because of previous disturbance within the proposed Project Area. USFWS has concurred with TVA’s no effect determination for federally listed plant species (Attachment 5). There would be no impact on natural areas because of the nature of the Project (residential development, marina, bank stabilization) and the distance from these resources.

The lakeward extension of the proposed commercial marina plans have been restricted to a 100-foot lakeward extension, therefore minimizing impacts to water-based recreation. The proposed Project has the potential to affect the section of the Riverpoint Walking Trail/Tennessee Riverwalk that intersects with Judd Road, the only access road to the proposed Project Area. Trail users could be affected by an increase in vehicle traffic on Judd Road during construction of the proposed Project and long term, with residents and visitors using Judd Road. However, nearby crossings of the Riverwalk and surface streets likely experience similar or even larger daily traffic volumes than anticipated at the Judd Road crossing. There are stop signs along both approaches of the Riverwalk at Judd Road consistent with all the public roadway crossings in the vicinity and the guidance found in the Federal Highway Administration’s *Manual on Uniform Traffic Control Devices*, 2023 Edition.

The Applicant would be responsible for ensuring that all solid and hazardous waste be properly contained, handled, and disposed of per local, State, and federal ordinances, laws, and regulations. Therefore, solid and hazardous waste impacts are expected to be negligible. There would be negligible adverse impacts on groundwater with implementation of construction best management practices (BMPs) and compliance with applicable permits and regulatory requirements. There would be minor adverse impacts on land use and visual resources because the Project would be consistent with other shoreline developments in the vicinity and along Nickajack Reservoir where mixed residential and commercial development are common. Minor, short-term construction-related noise, air, and traffic impacts are expected during Site development and are expected to be insignificant and are discussed conjunction with the Environmental Justice impact analysis.

Impacts to the following resources were evaluated in further detail:

- Cultural Resources
- Floodplains
- Terrestrial Zoology
- Navigation
- Environmental Justice
- Surface Water
- Aquatic Ecology

Cultural Resources

Historic and cultural resources, including archaeological resources, are protected under various federal laws, including: the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires federal agencies to consult with the respective State Historic Preservation Officer (SHPO) when proposed federal actions could affect these resources.

TVA has determined that this project is an undertaking (as defined at 36 CFR § 800.16(y)) that has the potential to cause effects on historic properties. TVA determined the Area of Potential Effects (APE) to be the Project Area (approximately 28 acres), where physical effects could occur, as well as areas, within a one quarter mile radius, where visual effects on historic structures could occur.

In 2021, prior to TVA's involvement, the Applicant contracted Brockington and Associates, Inc. (Brockington) to conduct a Phase I cultural resource survey of the entirety of the Applicant's property, including the entirety of the APE (Whitacre et al. 2021). Brockington conducted an intensive Phase I archaeological survey of the property as well as an architectural survey of the areas within a quarter mile of the project footprint. TVA finds the architectural survey adequate given that the viewshed of the entire property is compromised by residential and industrial development. As such, the potential to visually impact historic structures is low.

Brockington's architectural survey did not identify any previously recorded structures within a quarter mile radius of the project area. Additional reviews by TVA indicate there are no previously recorded structures within a half mile radius. A riverine route of the Trail of Tears is located along this portion of the Tennessee River; however, this resource will not be

impacted by the proposed project. The project area falls within the Chickamauga and Chattanooga National Military Park (designated a Chattanooga III Battlefield). No National Register of Historic Places (NRHP) eligible properties associated with the Chattanooga III battlefield are present within a 1-mile radius of the project footprint. Brockington's background research also revealed that the property once contained the Central Soya (1954-1991) soybean processing and feed manufacturing facility and the Archer Daniels Midland vegetable oil refinery and hydrogenation facility (1991-2001). All facilities associated with these operations have been demolished and most of the project footprint is considered heavily disturbed. The architectural survey identified four new historic structures. Brockington recommended all of the structures as ineligible for the NRHP.

Brockington's archaeological background research indicated that three previously recorded sites, 40HA66, 40HA74, and 40HA127, were located within the project area. Brockington conducted shovel tests at 30-meter intervals when possible; however, much of the project area had been heavily disturbed by the demolition of the previous industrial site. The survey identified two new archaeological sites outside of TVA's APE, 40HA597 and 40HA598, both of which were recommended ineligible for the NRHP. Brockington revisited the three previously recorded sites, testing each to a depth of approximately 1.6 meters below ground surface. No cultural resources were identified at all three sites. Although no artifacts were recovered, Brockington recommended deep testing in portions of each site where deep alluvial deposits were present.

TVA agrees with the methodologies and findings of the Brockington survey report. Although the survey did not relocate sites 40HA66, 40HA74, and 40HA127 within the project area, it is possible that the sites are still present below a depth of 1.6 meters below ground surface. Given the possibility of deeply buried deposits associated with these sites, TVA will require that ground disturbance cannot exceed 1.5 meters in total depth below ground surface in the areas recommended for deep testing. This avoidance requirement will be recorded in TVA's Section 26a permit. The Applicant has agreed to this commitment and has extensively modified their proposed plans to ensure all ground disturbance is limited to a depth less than 1.5 meters in depth in the archaeologically sensitive areas. With this mitigation measure, the proposed project would have no adverse effect on historic properties.

In a letter dated March 20, 2024, the Tennessee Historic Preservation Office concurred with TVA's finding that the proposed project would not adversely affect historic properties (Attachment 2). Pursuant to 36 CFR § 800.3(f)(2) of the regulations of the Advisory Council on Historic Preservation implementing the National Historic Preservation Act, TVA consulted with federally recognized Indian tribes regarding historic properties within the APE that may be of religious and cultural significance to the tribes. TVA received no objections to the proposed project from the associated federally recognized Tribal Nations.

Floodplains

A floodplain is the relatively level land area along a stream or river that is subject to periodic flooding. The area subject to a one-percent chance of flooding in any given year is normally called the 100-year floodplain. The area subject to a 0.2-percent chance of flooding in any given year is normally called the 500-year floodplain. It is necessary to evaluate development in the floodplain to ensure that the project is consistent with the requirements of Executive Order (EO) 11988, Floodplain Management.

TVA reservoirs have either power storage or flood storage or both. Power Storage is allocated to a range of elevations called the Power Storage Zone and water occupying space in that zone is used to generate electric power through a dam’s hydroturbines. Flood Storage is allocated to a range of elevations called the Flood Storage Zone and water occupying space within that zone is used to store flood water during a flood or high-flow rain event. Nickajack Reservoir has power storage but not flood storage.

Some of TVA’s dams are also able to be surcharged. Surcharge is the ability to raise the water level behind the dam above the top-of-gates elevation. Surcharge can be sustained only for a short period of time during a flood when inflows are highest. The TVA Flood Risk Profile (FRP) is the elevation of the 500-year flood that has been adjusted for surcharge at the dam where applicable. Nickajack Dam can be surcharged. TVA uses the FRP to control flood-damageable development on TVA lands.

The project would be located between TRMs 467.6 and 468.1, left descending bank, on Nickajack Reservoir, in Hamilton County, Tennessee. Table 1 lists flood elevations from (1) TVA, (2) the 2016 current effective Hamilton County Flood Insurance Study (FIS), and (3) the 2023 preliminary Hamilton County FIS for comparison. The flood elevations in the 2016 FIS are used in this analysis.

Table 1. Tennessee River Flood Elevations

Location	River Mile	100-year flood elevation, in feet, TVA ¹	500-year flood elevation, in feet, TVA ¹	100-year flood elevation, in feet, 2016 FIS ²	500-year flood elevation, in feet, 2016 FIS ²	100-year flood elevation, in feet, 2023 FIS ³	500-year flood elevation, in feet, 2023 FIS ³
Downstream Property Limit	467.6	658.8	665.3	659.0	665.0	658.0	664.0
Upstream Property Limit	468.1	659.1	665.5	659.0	665.0	658.0	664.0

1 – Elevations referenced to NGVD 1929

2 – Hamilton County Flood Insurance Study, effective 2016, elevations referenced to NAVD 1988

3 – Hamilton County Flood Insurance Study, preliminary 2023, elevations referenced to NAVD 1988

As a federal agency, TVA adheres to the requirements of EO 11988, Floodplain Management. The objective of EO 11988 is “...to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative” (EO 11988, Floodplain Management). The EO is not intended to prohibit floodplain development in all cases, but rather to create a consistent government policy against such development under most circumstances (United States [U.S.] Water Resources Council 1978). The EO requires that agencies avoid the 100-year floodplain unless there is no practicable alternative.

For certain “critical actions,” the minimum floodplain of concern is the 500-year - or 0.2-percent annual-chance - floodplain. The U.S. Water Resources Council defines “critical actions” as “any activity for which even a slight chance of flooding would be too great” (U.S. Water Resources Council 1978). Critical actions can include facilities producing hazardous materials (such as liquefied natural gas terminals), facilities whose occupants may be unable to evacuate quickly (such as schools and nursing homes), and facilities containing

or providing essential and irreplaceable records, utilities, and/or emergency services (such as large power-generating facilities, data centers, hospitals, or emergency operations centers).

EO 13690, Establishing a Federal Flood Risk Management Standard (FFRMS) and a Process for Further Soliciting and Considering Stakeholder Input, was reinstated by President Joe Biden in May 2021. However, implementation of EO 13690 is still in development at the national level. TVA is working with other federal agencies to develop consistent implementing plans for these EO requirements and may update its implementing plan when federal guidance is finalized. TVA currently incorporates floodplain analyses with respect to the 500-year floodplain in alignment with EO 13690, in addition to EO 11988. Because projects subject to Section 26a of the TVA Act are undertaken by others, and construction is not funded by TVA and only reviewed under Section 26a to ensure they do not create an obstruction to flood control, navigation, or public lands or reservations, TVA does not consider the FFRMS in Section 26a approvals.

With the exception of the fill, only a limited number of the facilities proposed would be located within the Tennessee River 100-year floodplain, specifically the two pavilions, boat slips, debris deflector, shared walking paths, riprap bank stabilization, stormwater outfalls, dredging, two gangways to the boat slips, and portions of parking lots and roads. Consistent with EO 11988 these are considered repetitive actions in the 100-year floodplain that should result in only minor impacts. The standard Section 26a permit conditions listed at the end of this section would minimize adverse impacts.

About 71 acre-feet of fill would be placed within the Tennessee River 100-year floodplain to create building pads for residential construction as well as to fill and grade the marina turning area and debris deflector. The fill, therefore, is subject to analysis under EO 11988. The property was purchased with the intention of developing mixed-use residential and commercial facilities. The proposed development would be undertaken on private land. No request has been made for the use of any TVA land or land rights. TVA's only action is the issuance of a Section 26a permit for the placement of fill for residential development and other development amenities. Accordingly, TVA has very limited control on the selection of alternative sites for locating such a development.

The fill is necessary to elevate proposed homesites in a mixed-use development. The Applicant evaluated two additional potential development sites. They were either outside the area north of Chattanooga or would have also involved fill within the 100-year floodplain.

The Applicant considered reducing or eliminating residential development within the 100-year floodplain; however, this would fail to achieve the project's purposes of accommodating continued population growth of Hamilton County, providing housing in the historically underserved area north of City Center, generating additional property-tax revenue to the City and County and reinvigorating a long-neglected industrial site. Therefore, TVA has determined that there is no practicable alternative to the fill being located within the 100-year floodplain. In accordance with EO 11988, Floodplain Management and TVA's NEPA procedures, TVA published a Floodplains No Practicable Alternative public notice (Attachment 3) of the proposed fill on its website on July 12, 2024. The comment period ended on July 26, 2024, with no comments received. To minimize adverse impacts, the applicant reduced the amount of fill from its original proposal, as well as reduced the amount of disturbance within the Tennessee River floodway. Additionally,

the lowest floor of any residence would be at least elevation 660.5, which is one foot above the 100-year flood elevation. Although consistent with local regulations, larger floods can and do occur.

The City of Chattanooga participates in the National Flood Insurance Program and any development must comply with its floodplain regulations. Portions of the project would be located within the Tennessee River floodway.

The applicant provided a No Rise Certification dated 03/27/2024. Project plans were submitted to City of Chattanooga for review under its floodplain regulations. The City reviewed the Applicant's plans and TVA received documentation on 08/30/2024 that the No-Rise review was complete and community acknowledgement has been recommended. Therefore, the development would comply with City of Chattanooga floodplain regulations and be consistent with EO 11988.

There would be no loss of Power Storage because no fill or relocated material is proposed below the top of the Power Storage Zone, which is elevation 634.5. The TVA Flood Storage Loss Guideline does not apply because Nickajack Reservoir does not have flood storage.

By adhering to the following Section 26a permit conditions, the proposed mixed-use development would be consistent with EO 11988 and have no significant impacts on floodplains and their natural and beneficial values.

Non-Routine Mitigation Measures:

- The two pavilions will remain open to the elements and never be enclosed in the future
- No flood-damageable items or equipment would be stored in the pavilions
- Floating Access Walkway and Open Floating Boat Slips – the Applicant must agree to securely anchor all floating facilities to prevent them from floating free during major floods
- The least amount of fill would be used to achieve project objectives
- Dredged material not used to elevate residential building pads will be spoiled on land outside the 100-year floodplain and above the 100-year flood elevation 659.0
- For purposes of shoreline bank stabilization, all portions of the riprap will be constructed or placed, on average, no more than two feet from the existing shoreline at normal operating level 634.5

Terrestrial Zoology (Wildlife)

The 28-acre Project Area consists of approximately 5.6 acres of aquatic habitat and 22.4 acres of terrestrial habitat. The terrestrial habitat encompasses approximately 13.1 acres of deciduous forest along the shoreline and primarily concentrated in the northern area of the floodplain, approximately 7.7 acres of early successional field in previously disturbed areas, and a 0.8-acre water retention basin on the southwestern portion of the property. Dirt access roads and a small area of crushed rock pile make up the remaining acreage (Figure 3). Each of the land cover types offers habitat for species common to the region, both seasonal individuals and permanent residents.



Figure 3. General Habitat Types in the Project Area

Deciduous forests in the Project Area provide habitat for an array of terrestrial animal species. Common birds in the Project Area typical of this habitat include American crow, blue jay, Carolina chickadee, northern cardinal, and tufted titmouse (National Geographic 2002). Carolina wren was observed in the forested area during field survey in September 2023. This area also provides foraging and roosting habitat for several species of bat; common bat species likely found within this habitat are big brown bat and eastern red bat (Harvey et al. 2011). Common raccoon, eastern gray squirrel, and Virginia opossum are other species likely to occur in this forested habitat (Whitaker 1996). Common amphibians found in this habitat type are green anole, marbled salamander, and northern zigzag salamander (Powell et al. 2016).

Early successional fields offer habitat to a multitude of avian species such as common grackle, eastern towhee, field sparrow, and northern mockingbird, among others (National Geographic 2002). American kestrel was observed around the Project Area during field survey in September 2023. Gulf fritillary was observed in the early successional habitat during field survey. Asian lady beetle, eastern carpenter bee, silver-spotted skipper, and western honeybee, among other insects have been observed within 5 kilometers of the Project Area (iNaturalist Community 2023).

A number of species can find habitat in the entirety of the Project Area: deciduous forests, early successional fields, and the transitional shrubby edges between them. Mammalian species likely present in this habitat include coyote, eastern cottontail, northern short-tailed shrew, and white-tailed deer (Whitaker 1996). Reptilian species with the potential to occur in the Project Area's fields and forest are eastern black kingsnake, eastern box turtle, eastern garter snake, and gray ratsnake (Powell et al. 2016).

The water retention basin found in the southwestern portion of the Project Area and the Tennessee River embankment can provide habitat for common reptile and amphibian species such as American toad, common watersnake, eastern snapping turtle, and upland chorus frog (Powell et al. 2016). Double-crested cormorant, great blue heron, and osprey were avian species observed over the Tennessee River during field survey in September 2023.

Review of the TVA Regional Natural Heritage database on June 19, 2024, identified one cave record known within 3.0 miles of the Project Area, approximately 2.7 miles away. During field survey in September 2023, no additional caves were found within the Project Area. Due to the distance between the Project Area and documented caves, no known caves would be impacted by the Proposed Action.

Four colonial wading bird colonies are known within 3.0 miles of the Project Area. The nearest wading bird colony is approximately 0.7 miles from the Project Area. No additional wading bird colonies or large nests were observed around the Project Area during field survey in September 2023. Due to the distance between the Project Area and documented records, known wading bird colonies would not be impacted by the Proposed Action.

Review of the USFWS' Information for Planning and Consultation (IPaC) website identified 15 species of Migratory Birds of Conservation Concern (MBCC) that have the potential to occur within the Project Area: bald eagle, black-billed cuckoo, bobolink, Canada warbler, cerulean warbler, chimney swift, eastern whip-poor-will, golden-winged warbler, Henslow's sparrow, Kentucky warbler, prairie warbler, prothonotary warbler, red-headed woodpecker, rusty blackbird, and wood thrush. These species and habitats are described in detail in Attachment 4. See the Threatened and Endangered Species section below for a complete bald eagle impact analysis.

The Project Area does not fall within the breeding range of Bobolink, Canada warbler, golden-winged warbler, and rusty blackbird. Therefore, if present during Project actions, these species would be expected to be mobile and to flush if disturbed. Populations of these migratory birds of conservation concern would not be impacted by the Proposed Action.

Suitable nesting habitat does not exist within the Project Area for chimney swift or eastern whip-poor-will. Therefore, if present during project actions, these species would also be expected to be mobile and to flush if disturbed. Populations of these migratory birds of conservation concern would not be impacted by the Proposed Action.

Suitable nesting habitat for black-billed cuckoo, cerulean warbler, Kentucky warbler, prothonotary warbler, red-headed woodpecker, and wood thrush is available in the forested areas, and for prairie warbler and Henslow's sparrow in the early successional fields of the Project Area. The Proposed Action may destroy nests, eggs, or juveniles of these species if present in the Project Area when tree removal occurs. Considering the relatively small

amount of habitat to be impacted, minor impacts to populations of these migratory birds of conservation concern could occur as a result of the Proposed Action.

The Proposed Action would result in the displacement of wildlife (primarily common, habituated species) currently using the area. Direct effects to some individuals could occur if those individuals are immobile during the time of habitat removal (e.g., during breeding, nesting or hibernation seasons). Habitat removal likely would disperse mobile wildlife into surrounding areas in attempts to find new food resources, shelter, and to reestablish territories. Due to the extent of previous disturbance and the availability of similarly suitable habitat in areas in the surrounding landscape, minor impacts to populations of common wildlife species could occur as a result of the Proposed Action.

Threatened and Endangered Species (Terrestrial Animals)

A review of terrestrial animal records in the TVA Regional Natural Heritage database in June 2024, resulted in seven species of state conservation concern within three miles of the Project Area. Three federally listed species, one species proposed for federal listing, and one federally protected species are known from Hamilton County, Tennessee. Additionally, the USFWS has determined that one federally listed species and a candidate species have the potential to occur in the Project Area (Table 2).

Table 2 - Federally Listed Terrestrial Species in Hamilton County, Tennessee and Other Species of Conservation Concern Documented within 3 Miles of the Project Area¹

Common Name	Scientific Name	Federal Status ²	State Status (Rank) ³
Birds			
Bald eagle ⁵	<i>Haliaeetus leucocephalus</i>	DL	-(S3)
Barn owl	<i>Tyto alba</i>	-	-(S3)
King rail	<i>Rallus elegans</i>	-	D(S2)
Least bittern	<i>Ixobrychus exilis</i>	-	D(S2B)
Osprey	<i>Pandion haliaetus</i>	-	-(S3B)
Peregrine falcon	<i>Falco peregrinus</i>	-	-(S1B)
Virginia rail	<i>Rallus limicola</i>	-	-(S1B, S3N)
Whooping crane ⁶	<i>Grus americana</i>	EXPN	-(SX)
Yellow-crowned night-heron	<i>Nyctanassa violacea</i>	-	-(S3)
Invertebrates			
Monarch butterfly ⁴	<i>Danaus plexippus</i>	C	-(S4)
Mammals			
Gray bat ⁵	<i>Myotis grisescens</i>	E	E(S2)
Indiana bat ⁵	<i>Myotis sodalis</i>	E	E(S1)
Northern long-eared bat ⁵	<i>Myotis septentrionalis</i>	E	E(S1S2)
Tricolored bat ⁵	<i>Perimyotis subflavus</i>	PE	T(S2S3)

¹ Source: TVA Regional Natural Heritage database and USFWS Ecological Conservation Online System (<https://ecos.fws.gov/ipac/>) extracted 06/19/2024.

² Status Codes: C = Candidate Species; D = Deemed in Need of Management; DL = Delisted; E = Endangered; EXPN = Experimental Population, Non-Essential; PE = Proposed Endangered; T = Threatened.

³ State Ranks: S1 = Critically Imperiled; S2 = Imperiled; S3 = Vulnerable; S4 = Apparently Secure; S#B = Rank of Breeding population; S#N = Rank of Non-breeding population; SX = Presumed Extirpated.

⁴ Historically this species has not been tracked by state or federal heritage programs; USFWS has determined that this species could occur within the Project Area.

⁵ Species that has not been documented within three miles of the Project Area but has been documented within Hamilton County, Tennessee.

⁶ Species has not been documented within three miles of the Project Area or from Hamilton County, Tennessee; USFWS has determined this species has the ability to occur within the Project Area.

The bald eagle is protected under the Bald and Golden Eagle Protection Act (16 USC 668-668d). This species is associated with strong, mature trees capable of supporting their large nests, which they built near larger waterways where they forage primarily for fish (USFWS 2007). Six bald eagle nest records are known from Hamilton County, Tennessee, the nearest of which is approximately 6.7 miles from the Project Area. Foraging habitat is available over the Tennessee River, and suitable nesting habitat is available within the deciduous forest in the Project Area. Neither individuals nor their nests were observed in the Project Area during field survey. Best Management Practices (BMPs) must be implemented in the Project Area to minimize potential impacts to bald eagle foraging habitat. Due to the distance of known nesting records and with the implementation of BMPs

around waterbodies in the Project Area, significant impacts to bald eagles are not anticipated as a result of the Proposed Action, which is in compliance with the National Bald Eagle Management Guidelines. USFWS has concurred with TVA's effect determination for bald eagle (Attachment 5).

Barn owl uses a variety of habitats but can be primarily found in open habitats such as grasslands, meadows, agricultural fields, and also around human habitation. Barn owl will nest in a variety of structures including tree cavities, nest boxes, man-made structures, riverbanks, cliffs, or caves (Marti et al. 2020). A historical record of a barn owl roosting inside a hollow oak tree was documented approximately 0.38 miles from the Project Area in 1974. Potential foraging habitat for this species is present in the early successional field. During field survey in September 2023, potentially suitable tree cavities for this species were observed in deciduous forest within the Project Area. Tree removal, grading, and filling could impact barn owl habitat; if individuals are nesting within Project Area at the time of vegetation removal, proposed activities may destroy nests, eggs, or juveniles. However, given the relatively small amount of available roosting habitat within the Project Area, the Proposed Action would not impact populations of barn owl.

King rail, least bittern, and Virginia rail are all freshwater marsh-dwelling birds. These birds tend to construct their nests within dense, tall vegetation like cattails, bulrushes, and other marsh plants (Conway 2020; Pickens and Meanley 2020; Poole et al. 2020). The nearest known king rail record was historically documented approximately 0.38 miles from the Project Area in 1967. The nearest known least bittern record was historically documented approximately 0.68 miles from the Project Area in 1967. More recent records of this species can be found in the Cornell Lab of Ornithology eBird database (eBird Checklist 2021) approximately 3.5 miles from the Project Area. One Virginia rail nest was historically documented in 1963 approximately 0.6 miles from the Project Area. More recent records of this species can be found in the Cornell Lab of Ornithology eBird database near the same location as the historical record (eBird Checklist 2021a). Foraging and nesting habitat for these species does not exist within the Project Area, and the Proposed Action would not impact populations of king rail, least bittern, and Virginia rail.

Ospreys breed in Tennessee in the summer from March to October but are uncommon in the state outside of this time frame. They forage over large water bodies and tend to select tall structures nearby like dead trees, snags, or artificial platforms for nesting (Tennessee Watchable Wildlife 2024). Three osprey nest records are known within three miles of the Project Area, the nearest of which is a nest on a transmission structure approximately 2.2 miles from the Project Area. Nesting and foraging habitat for osprey is present within the Project Area throughout the deciduous forest and in the Tennessee River. One osprey was observed flying over and foraging in the Project Area during field survey in September 2023; however, no nests were observed within the Project Area. BMPs must be implemented around the Tennessee River while proposed activities are ongoing to minimize potential impacts to osprey foraging habitat. Given the distance between known nests and the Project Area, and with BMPs in place, osprey populations would not be impacted by the Proposed Action.

Peregrine falcon can be found foraging in open habitats and over lakes and rivers. These adept hunters select nest sites in elevated locations such as steep cliffs, buildings, and bridges with ledges. In Tennessee, only two active nests are known, both of which are located in the Great Smoky Mountains (Tennessee Wildlife Resources Agency [TWRA] 2024). A peregrine falcon nest was documented on a railroad bridge at Chickamauga Dam

approximately 2.15 miles from the Project Area; this nest was abandoned in 2007 when the male of the nesting pair died. Potential foraging habitat exists in an early successional field within the Project Area; however, potential nesting habitat was not observed within the Project Area. The proposed development would directly impact this foraging habitat; however, known peregrine falcon nests would not be impacted. The Proposed Action would not impact populations of peregrine falcon.

Whooping crane is a large bird that once occurred throughout North America but has declined to one self-sustaining wild population that breeds in Canada and winters in coastal Texas. Whooping cranes from this population are listed as endangered in the Southwest, USFWS Region 2 (USFWS 2024). In the eastern United States, an additional population has been established from captive-raised birds that breed in Wisconsin and overwinter in Florida. This additional population is categorized as a non-essential experimental population (USFWS 2001). For the purposes of consultation on private land, non-essential experimental populations are treated as a proposed species with no ESA Section 7(a)(2) requirements, but federal agencies must not jeopardize their existence in accordance with the ESA Section 7(a)(4) (16 USC 1531-1544). During migration, whooping cranes may be found in coastal marshes, estuaries, agricultural fields, and other large wetland habitats (USFWS 2001). Since 2007, a small group of atypical individuals have come to winter in Tennessee, in a rural area on the Cumberland River; however, whooping cranes are rare migrants and winter residents in Tennessee (TWRA 2024a). No suitable habitat exists within the Project Area for whooping cranes. The Proposed Action would not jeopardize the continued existence of whooping crane. USFWS has concurred with TVA's effect determination for whooping crane (Attachment 5).

The yellow-crowned night-heron is known to inhabit swamps, forested wetlands, or uplands near bodies of water where they form small nesting colonies in a variety of trees species (Watts 2020). A historic 1977 nesting record for yellow-crowned night-heron is documented within a colonial wading bird colony approximately 0.7 miles from the Project Area. More recent records of this species can be found in the Cornell Lab of Ornithology eBird database near the same location as the historical record (eBird Checklist 2017). No additional wading bird colonies were observed around the Project Area during field survey in September 2023. Foraging and nesting habitat for this species does not exist within the Project Area. Due to the distance from known records, the Proposed Action would not impact populations of yellow-crowned night heron.

Monarch butterfly is listed under the ESA as a candidate species and is not subject to Section 7 consultation. The monarch butterfly is a highly migratory species, with eastern United States populations overwintering in Mexico. Monarch populations typically return to the eastern U.S. in April (Davis and Howard 2005). Summer breeding habitat requires milkweed plant species, on which adults exclusively lay eggs for larvae to develop and feed on. Adults will drink nectar from other blooming wildflowers when milkweeds are not in bloom (Schweitzer and Jepsen 2014). Although monarch butterfly has not been historically tracked by state or federal heritage programs, the USFWS' IPaC tool determined that this species could occur within the Project Area. The heavily impacted early successional field within the Project Area is approximately 7.7 acres and consists of several wildflowers and other flowering plant species that provide suitable foraging habitat for adult monarchs. Grading and filling will impact monarch butterfly foraging habitat within the Project Area. Abundant milkweed plants were not observed during field survey in September 2023, as such, the Proposed Action would not jeopardize the continued existence of monarch

butterfly. USFWS has concurred with TVA's effect determination for monarch butterfly (Attachment 5).

Gray bats roost in caves year-round and migrate between summer and winter roosts during spring and fall (Tuttle 1976). This species disperses over bodies of water at dusk where they forage for insects (USFWS 1982). Five gray bat records are known from Hamilton County, Tennessee, the nearest of which is from a mist-net capture approximately 9.82 miles from the Project Area. Mist-net surveys were conducted within the Project Area by BDY Environmental LLC, now named Davey Resources Group, in July 2021 (BDY Environmental 2021). These surveys followed Phase 2 Presence/Absence survey guidance from the 2020-2021 USFWS Range-wide Indiana Bat Survey Guidelines (USFWS 2020). Three gray bats were captured within the Project Area during these surveys.

Indiana bats hibernate in caves in winter and use areas around them for swarming (mating) in the fall and staging in the spring, prior to migration back to summer habitat. During the summer, Indiana bats roost under the exfoliating bark of dead snags and living trees in mature forests with an open understory and a nearby source of water. Indiana bats are known to change roost trees frequently throughout the season, while still maintaining site fidelity, returning to the same summer roosting areas in subsequent years. Foraging occurs along riparian areas and along the tops of trees, forested edges, and tree lines (USFWS 2007a). One record for Indiana bat is known from Hamilton County, Tennessee; this record is from a roost tree used during a 2012 migration tracking study approximately 17.95 miles from the Project Area. A closer record for Indiana bat is known from Dade County, Georgia, approximately 9.75 miles from the Project Area; this record is from single Indiana bat observed during a 2016 winter hibernaculum survey. As mentioned above, Phase 2 Presence/Absence mist-net surveys were conducted within the Project Area in July 2021 (BDY Environmental 2021). No Indiana bats were captured within the Project Area during these surveys.

Northern long-eared bats (NLEB) predominantly overwinter in large hibernacula such as caves, abandoned mines, and cave-like structures. During the fall and spring, they utilize entrances of caves and the surrounding forested areas for swarming and staging. In the summer, NLEB roost individually or in colonies beneath exfoliating bark or in crevices of both live and dead trees (typically greater than three inches in diameter). This species also roosts in abandoned buildings and under bridges. NLEB emerge at dusk to forage below the canopy of mature forests on hillsides and roads, and occasionally over forest clearings and along riparian areas (USFWS 2022). Two records of NLEB are known from Hamilton County, Tennessee, the nearest of which was documented approximately 5.85 miles from the Project Area during a 2011 winter hibernaculum survey. Again, Phase 2 Presence/Absence mist-net surveys were conducted within the Project Area in July 2021 (BDY Environmental 2021). No NLEB were captured within the Project Area during these surveys.

The tricolored bat is generally solitary or found in small groups. They are associated with a variety of forested landscapes where they forage along forest edges and waterways. Summer roosts are primarily in live and dead leaf clusters of live or recently dead deciduous hardwood trees, Spanish moss, and beard lichen. However, this species has also been occasionally documented roosting in clusters of dead pine needles and artificial structures such as bridges and culverts, and sometimes barns during summer months. In winter, this species is most commonly found in caves and mines but may also use culverts, abandoned wells, tree cavities and rock shelters (USFWS 2021). One record of tricolored

bat is known from Hamilton County, Tennessee; this individual was captured during a 2016 mist-net survey approximately 11.95 miles from the Project Area. As mentioned previously, Phase 2 Presence/Absence mist-net surveys were conducted within the Project Area in July 2021 (BDY Environmental 2021). No tricolored bats were captured within the Project Area during these surveys.

One cave is known within three miles, approximately 2.7 miles from the Project Area. No northern long-eared bat or Indiana bat ranked hibernacula are known within 5 or 10 miles, respectively. No caves or other suitable winter roosting structures for gray bat, Indiana bat, northern long-eared bat, or tricolored bat were observed in the Project Area during field survey. Phase 1 habitat assessments for Indiana bat and northern long-eared bat were conducted in the Project Area in July 2021 using the USFWS’s 2021 Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines and again in 2023 using the USFWS’s 2023 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (USFWS 2023). Phase 2 presence/absence surveys were conducted within the Project Area July 2021 following the 2020-2021 USFWS Range-wide Indiana Bat Survey Guidelines (USFWS 2020). Approximately 12.4 of the 13.1 acres of deciduous forest proposed for removal in the Project Area are suitable for summer roosting Indiana bat, NLEB, and tricolored bat (Figure 4). Foraging habitat is available for all four listed bat species over the Tennessee River, the water retention basin, and over and around trees, forest corridors, and forest edges within the Project Area.



Figure 4. Suitable Roosting Habitat for Federally Listed Bats in the Project Area

Three gray bats were captured within the Project Area during Phase 2 Presence/Absence mist-net surveys in July 2021 (BDY Environmental 2021); however, due to the lack of impacts to gray bat roosting habitat and minimal impacts to available foraging habitat, TVA has determined that the Proposed Action may affect but is not likely to adversely affect gray bats. No Indiana bats, northern long-eared bats, or tricolored bats were captured during these surveys suggesting they are not using the Project Area. Due to the lack of impacts to winter roosting habitat, implementation of BMPs around aquatic foraging habitat, and lack of documented presence at the site, TVA has determined that the Proposed Action may affect but is not likely to adversely affect Indiana bat and northern long-eared bat and would not jeopardize the continued existence of tricolored bat. In anticipation of the expected listing of the tricolored bat as Endangered under the ESA, TVA has also evaluated the potential to tricolored bat at the individual level. The Applicant has committed to conduct tree removal outside of the pup season (May 15 – July 31). With that commitment in place, TVA has determined that the Proposed Action may affect but is not likely to adversely affect tricolored bat. USFWS has concurred with TVA's effect determination for federally listed bats (Attachment 5).

Navigation

The Applicant's commercial water use facility would be located at TRM 468 on the left descending bank, just below the confluence of South Chickamauga Creek. The commercial marina, with floating dock and 71 boat slips, would be 100 feet in length by 1,161 feet in width for a total lakeward extension of 100 feet from normal summer pool elevation of 634.0. TVA and USACE convened several times with the Applicant concerning the lakeward extension of the commercial facility because this location is a yellow-lined navigation review area where dock lengths have been restricted due to close proximity to the commercial navigation channel with the sailing line favoring the left descending bank and because of the high flows coming from Chickamauga Dam, just upstream of the Project Area. After several dock plans iterations, TVA and USACE have reviewed the 100-foot lakeward extension plans presented by the Applicant. TVA approves of the Applicant's proposed revised dock plans and recommends issuance of the Section 26a permit to the Applicant contingent upon the following conditions:

- No portion of the marina facilities may extend beyond the 100 feet lakeward extension from normal summer pool elevation 634.0 approved limits.
- All floating facilities must be securely anchored to prevent them from floating free during a high flow or flood event.
- The applicant is to be advised in writing that the facilities will be on a commercial navigation channel or marked recreational channel and may be vulnerable to wave wash and possible collision damage from passing vessels.

As part of the Section 26a permit review process, the revised dock plans have been evaluated and approved by TVA and USACE for consistency with the agencies' requirements for navigation and safety. Therefore, there would be minimal impacts on commercial or recreational navigation from implementing the proposed Project, and thus the operation of the commercial marina and floating dock.

Environmental Justice

The project site is located entirely within one U.S. Census block group (470650123003) and is adjacent to a second block group (470650114111). Both block groups include minority

and low-income populations, as shown in Table 3. TVA’s analysis identified no limited English-speaking populations are present within either block group.

Table 3. Environmental Justice Populations

	People of Color	Low Income	Limited English Speaking
Block Group (Percent) 470650123003 (includes Project Area)	53%	52%	0%
Block Group (Percent) 470650114111	41%	40%	0%
Hamilton County (Percent)	30%	29%	2%
Tennessee Average (Percent)	28%	35%	2%

As shown in Table 3, the minority and low-income populations of the Census block group that includes the Project Area exceed 50 percent of the total populations for these block groups. The ratio of minority populations in both block groups is meaningfully greater than that of both the county and state (i.e., greater than or equal to 10 percent of the comparison population). The ratio of low-income populations for both block groups significantly exceeds that of the general populations of both the county and state (i.e., by greater than or equal to 10 percent of the comparison population). Therefore, minority and low-income environmental justice populations exist in both block groups.

As the Proposed Action is located onsite within the boundaries of the Site, the primary impacts in the vicinity would be an increase in traffic along local roadways, temporary impacts from noise, and mobilization of fugitive dust during grading, placement of fill, and construction activities. Noise attenuates with distance and noise impacts at the nearest receptors would be negligible. Impacts from fugitive dust would be minimized through use of water application if necessary. The Applicant’s working hours for construction activities would adhere to what is allowed by the City of Chattanooga. Overall, impacts from noise and fugitive dust would be minor and temporary to the nearest receptors.

The anticipated approximately 40 trucks per day coming to the Site in association with the Proposed Action would not be anticipated to contribute to more than minor impacts on traffic in the Project vicinity. The Proposed Action in combination with the vertical buildout phase would contribute minor to moderate cumulative impacts on traffic in the Project vicinity.

The Applicant anticipates that most of the workforce would come from the local and regional pool of contractors. The Proposed Action would provide employment for these workers for the duration of the approximately 24-month Project period and cumulatively up to five to seven years for the overall Site’s vertical buildout. Beneficial impacts would extend to environmental justice if workers were hired from minority or low-income populations. Indirect effects would be minor and include spending by workers in the local economy.

Conversion from a formerly industrial and currently undeveloped land use to a residential land use would constitute a minor beneficial impact to local communities, including environmental justice populations, by creating new residential and recreational areas.

The Proposed Action would accommodate the continued population growth of Hamilton County, provide housing in the historically underserved area north of the City Center, and provide commercial opportunities to reinvigorate a long-neglected urban space. Minor economic benefits provided by the Applicant's development would include an estimated \$450 million of economic impact at build-out, which would result in annual property tax revenue in excess of \$5 million, 50.1% of which would be remitted to the City of Chattanooga, and 49.9% to Hamilton County.

Conversely, increased property values could result in minor and possibly disproportionate adverse economic impacts on the low income and minority populations present in Census Block Group 470650123003, which includes the Project Area. For example, property taxes may increase, but this increase is anticipated to be minor due to the geographic separation between the existing communities with environmental justice concerns and the proposed development.

Surface Water

The Project Area lies mostly within the Tennessee River-Nickajack Lake Upper Hydrologic Unit Code (HUC) 12 Watershed (060200011202) and partially within the South Chickamauga Creek HUC 12 Watershed (060200010905). Precipitation in the general area of the proposed Project averages about 52.5 inches per year. The wettest month is November with approximately 5.0 inches of precipitation, and the driest month is October with 3.3 inches (U.S. Climate Data 2024). The shoreline is eroded with oversteepened, caving river banks. Figure 5 displays current conditions along the Nickajack Reservoir shoreline. There are currently existing barge cells and a cellular dock from the site's prior industrial uses that will be incorporated into the proposed floating dock system. The existing barge cells outside of the proposed floating dock system would remain in place.



Figure 5. Project Area shoreline from the Tennessee River

In a letter dated September 19, 2019, S&ME identified potential waters of the United States across a 70.98-acre review area that comprised the Applicant's entire Site ("USACE Preliminary Jurisdictional Determination and TDEC Hydrologic Determination Request"). This letter identified two potential wetlands, two potential watercourses, and four open

water ponds constructed to handle stormwater and process discharges associated with the past feed mill/vegetable oil processing facility on the Site. However, subsequent USACE and TDEC Site visits determined that no streams, wetlands, or jurisdictional ponds were present onsite. Consequently, these features were removed from further regulatory correspondence. TDEC provided a letter of concurrence in response to a TDEC Hydrologic Determination Request submitted by S&ME on September 19, 2019, and updated on September 30, 2019. This letter of concurrence states that the assessed watercourses are wet weather conveyances (WWCs) and alterations "shall require no notice or approval" provided activities are completed in accordance with Tennessee Code Ann. § 69-3-108(q). USACE Jurisdictional Determinations and TDEC Hydrologic Determinations are valid five (5) years from the date of issuance. If permitting has not been obtained within 5 years of date of issuance, the Applicant will need to request an updated Hydrologic Determination and Jurisdictional Determination from the appropriate regulatory agencies.

The federal Clean Water Act (CWA) requires all states to identify waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards and to establish priorities for the development of limits based on the severity of the pollution and the sensitivity of the established uses of those waters. States are required to submit reports to the Environmental Protection Agency (EPA) listing impaired streams and water bodies and identifying the source or cause. The term "303(d) list" refers to the list of impaired and threatened streams and water bodies identified by the state. The Tennessee River/Nickajack Reservoir lies within the Project Area and is considered jurisdictional. South Chickamauga Creek, also a jurisdictional stream, lies adjacent to the Project Area to the north (see Figure 2). Both Nickajack Reservoir and South Chickamauga Creek are listed on Tennessee's 2024 303(d) list. Nickajack Reservoir is listed as impaired and not supporting its designated uses due to contaminated sediments (polychlorinated biphenyls and dioxin). South Chickamauga Creek is listed as impaired due to bacteria (*E. coli*), nutrients, physical substrate habitat alterations, and sedimentation or siltation (TDEC 2024). There are no other streams to be assessed for this purpose within the Project Area, as the identified water features are non-jurisdictional WWCs and ponds.

As outlined in the Description of the Proposed Action section, the proposed development includes significant Site grading work that would result in the placement of onsite fill materials below the 100-year and 500-year floodplains of the Tennessee River and South Chickamauga Creek. Proposed work in and along the shoreline of the Tennessee River would include a floating commercial dock providing 71 boat slips, dredging between the dock and shoreline to support shoreline stabilization activities, construction of a debris deflector extending from the shoreline to the central mooring cell, construction of a paved marina lot, construction of a shared-use path along the periphery of the Tennessee River, and the placement of riprap along a section of the riverbank on the south end of the Project site. The photo in Figure 5 depicts part of the riverbank that is proposed for the riprap stabilization. Section 404 of the CWA requires a permit before dredged or fill material may be discharged into waters of the United States (WOTUS). The Applicant would obtain a CWA Section 404 permit from the USACE for shoreline stabilization which is considered fill material. In addition, an Aquatic Resource Alteration Permit (ARAP) would be required in compliance with Tennessee water quality regulations and antidegradation policy. The ARAP application review and approval process ensures the Project does not result in significant degradation to regulated waters. The ARAP also serves as Water Quality Certification for the federal CWA 404 permit, ensuring that the federal permit is issued in alignment with the state water regulations. This certification meets CWA Section 401

obligations. Per USACE guidelines, USACE would issue the Individual Permit after TVA approval of the Section 26a permit application.

Construction activities have the potential to temporarily affect surface water via storm water runoff. The Applicant would comply with appropriate state and federal permit requirements. Because more than 1 acre would be disturbed, the Applicant would obtain and adhere to the terms and conditions of the Tennessee National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activities. This permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to ensure sedimentation and other debris in site run-off is minimized prior to discharge to surface waters. The SWPPP would identify specific BMPs to address construction-related activities necessary for implementation to minimize surface water impacts from erosion of sediment, solid waste, chemicals usage, equipment usage and maintenance, dust control, and septic issues. The Applicant would also adhere to City of Chattanooga requirements for permanent runoff reduction measures for surface disturbing activities exceeding 1 acre and obtain a City of Chattanooga Land Development Permit.

All erosion prevention and sediment control measures installed on the Site would be monitored and maintained in good working condition throughout construction activities. Once these erosion control measures have been established, the mass grading of the Project Area would be initiated, along with the demolition of facilities currently located in onsite upland areas which have been permitted through the City of Chattanooga and TDEC. If necessary, the Applicant would place low-impact erosion and sediment control devices, such as erosion eels or silt fencing, downslope of the discharge to minimize the potential for downslope erosion. Upon completion of grading and fill activities, areas of exposed soil will be stabilized with perennial herbaceous vegetation and, if necessary, temporary annual vegetation.

A paved marina parking lot area is proposed to be constructed along the riverbank near the floating dock. Additional parking lots and roads to accommodate residents and visitors resulting in increased vehicle traffic would be expected. Parking lots and roadways can contribute trash, suspended solids, hydrocarbons, oil and grease, heavy metals, and other pollutants to receiving water via nonpoint source discharges. Site-specific BMPs to reduce nonpoint source pollution will be important for future operation of the site to minimize impacts to water quality.

Overall, short term water pollutants, such as sedimentation, may occur as a result of the Proposed Action. Adherence to the terms and conditions of all required federal and state permits, including implementation of the SWPPP and associated BMPs would be used to minimize and prevent sedimentation and other pollutants in the runoff and is expected to result in only minor temporary impacts to surface waters. Subsequent impacts associated with construction and erosion would be 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. These temporary impacts are not expected to have long-term effects on the current status of surface water use classifications for either Nickajack Reservoir or South Chickamauga Creek, nor affect the water quality of downstream waters. Compensatory mitigation as required by USACE and TDEC permitting conditions may be required for any impacts incurred as a result of riprap placement, dredging, and activities related to dock construction and associated infrastructure.

Aquatic Ecology

No streams, wetlands, or jurisdictional ponds are present within the approximately 71 land-based acres of the Site. The aquatic features within the Site are non-jurisdictional WWCs and manmade retention ponds. Wet weather conveyances flow only in response to precipitation events and therefore likely do not provide suitable habitat for aquatic fauna. The four ponds may provide limited aquatic habitat.

The Proposed Action includes significant Site grading work that would result in the placement of onsite fill materials below the 100-year and 500-year floodplains of the Tennessee River and South Chickamauga Creek. The Project Area (and entire Site) would be located on the most downstream end of South Chickamauga Creek, near its confluence with the Tennessee River. Thus, impacts to South Chickamauga Creek would be negligible. As discussed above, the Proposed Action would include work in and along the shoreline of the Tennessee River. There may be temporary and minor impacts to stream banks as a result of the Proposed Action. Impacts could also occur directly by the alteration of instream habitat conditions or indirectly due to storm water runoff resulting from construction activities associated with the Proposed Action.

Sedimentation and other debris in site run-off have a detrimental effect on many aquatic animals adapted to riverine environments. Turbidity caused by suspended sediment can negatively impact spawning and feeding success of fish and mussel species (Brim Box and Mossa 1999; Sutherland et al. 2002). As discussed above, adherence to the terms and conditions of all required federal and state permits, including implementation of the SWPPP and associated BMPs would be used to minimize and prevent sedimentation and runoff into the Tennessee River and South Chickamauga Creek thus minimizing the potential for impacts to water quality and instream habitat for aquatic organisms. Temporary impacts associated with construction and erosion would be eventually eliminated as impacted areas are revegetated or otherwise stabilized. Because appropriate BMPs would be implemented during construction activities, any impacts to aquatic ecology would be temporary and minor as a result of implementing the Proposed Action.

Proposed alterations to the Tennessee River include the stabilization of the south bank of the river. This riprap bank stabilization would result in a decrease in erosional sedimentation of the Tennessee River and a benefit to the aquatic ecological community. Placing approximately 1,150 linear feet of riprap along the south bank of the Tennessee River to stabilize the areas associated with grading occurring below the 100-year floodplain would help to improve the local water quality by reducing sedimentation of the Tennessee River.

A review of the TVA Natural Heritage Database for records of listed aquatic animal species indicated that 11 federally listed, proposed, or under review aquatic species (two fish, eight mussels, and one snail) and eight additional state-listed species (one crayfish and seven fish) are known from the Tennessee River (0603000112) and South Chickamauga Creek (0602000109) ten-digit HUC watersheds of the potentially affected Project Area. Of these records, the fish, mussels, and snails are either historical or extirpated or are unlikely to occur in the Project Area. The crayfish, Chickamauga Crayfish, is also unlikely to occur in the Project Area, with the proposed work being in the mainstem Tennessee River and this species prefers moderate flowing, shallow stream. In Tennessee, it occurs in South Chickamauga Creek, which is upstream of the Project Area (TWRA 2001). Additionally, the Applicant would implement appropriate BMPs during construction activities in order to prevent silt and sediment from entering Nickajack Reservoir. Therefore, no impacts to

aquatic endangered, threatened, or special status species are anticipated to occur. There is no federally designated critical habitat within the Tennessee River (0603000112) and South Chickamauga Creek (0602000109) 10-digit HUC watershed. Therefore, the proposed actions would result in no adverse modifications to unique or important aquatic habitat. USFWS has concurred with TVA's no effect determination for federally listed aquatic animal species (Attachment 5).

Necessary Permits or Licenses

All necessary permits, permit modifications, licenses, and approvals would be obtained by the Applicant for activities it implements within the Project Area. The list below identifies additional regulations, programs, permits, approvals, or other authorizations from federal, state, or local authorities that may be required before the Project Area could be developed for specific uses by the Applicant:

- An aquatic resource alteration permit (ARAP), which serves as a Section 401 Water Quality Certification in Tennessee, and a Section 404 permit from the US Army Corps of Engineers (USACE), are required for activities that involve point source discharges of dredge or fill into Waters of the US (WOTUS) or Waters of the State of Tennessee. Prior to starting construction, the Applicant will be required to obtain an ARAP from the Tennessee Department of Environment & Conservation (TDEC). The Section 404 Individual Permit will be issued by the USACE after the TVA Section 26a permit is issued.
- A National Pollutant Discharge Elimination System (NPDES) general permit is required under Section 402 of the Clean Water Act for discharge of pollutants found in stormwater runoff associated with construction activities that disturb greater than one acre into WOTUS or Waters of the State of Tennessee. The development and approval of a Stormwater Pollution Prevention Plan (SWPPP) is a component of this permit. Construction Best Management Practices (BMPs) to minimize impacts to water quality would be outlined in the SWPPP. A notice of coverage under the general NPDES permit was obtained in October 2019.
- Approval from TVA, USACE, and the U.S. Coast Guard regarding the proposed lakeward extension of facilities along the Tennessee River.
- Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899, issued by the USACE.
- Rezoning applications to support commercial and high-density residential uses at the subject property have been approved by local authorities.
- A City Land Disturbance Permit would be applied for before the commencement of grading or clearing activities.
- Approval that the portion of the Project located within the 100-year floodplain is compliant with the City of Chattanooga Flood Ordinance for Residential Construction (Sec. 38-365).
- Final building permits would be applied for by individual property owners/builders upon completion of site grading, installation of road and utility infrastructure, and upon final plat approval.

Mitigation Measures

Through the project planning and permitting process, numerous design modifications have been incorporated into the Proposed Action Alternative that avoid or minimize impacts to sensitive resources identified within the Project Area.

In addition to the standard conditions for a Section 26a permit and other necessary permits, which include mitigation measures, BMPs and other requirements, TVA would require the Applicant to implement the following mitigation measures to avoid, minimize, or resolve adverse impacts on the environment:

Cultural

- Ground disturbance would be limited to less than 1.5 meters in depth in the archaeologically sensitive areas.

Floodplains

- The two pavilions would remain open to the elements and never be enclosed in the future
- No flood-damageable items or equipment would be stored in the pavilions
- The Applicant would securely anchor all floating facilities (access walkway and open floating boat slips) to prevent them from floating free during major floods
- The least amount of fill would be used to achieve project objectives
- Dredged material not used to elevate residential building pads would be spoiled on land outside the 100-year floodplain and above the 100-year flood elevation 659.0
- For purposes of shoreline bank stabilization, all portions of the riprap would be constructed or placed, on average, no more than two feet from the existing shoreline at normal operating level 634.5

Terrestrial Zoology

- The Applicant has committed to conduct tree removal outside of the Tennessee bat pup season (May 15 – July 31).

Navigation

- No portion of the marina facilities may extend beyond the 100 feet lakeward extension from normal summer pool elevation 634.0 approved limits.
- All floating facilities must be securely anchored to prevent them from floating free during a high flow or flood event.
- The Applicant is to be advised in writing that the facilities will be on a commercial navigation channel or marked recreational channel and may be vulnerable to wave wash and possible collision damage from passing vessels.

Conclusion and Findings

Based on the findings in this Environmental Assessment, we conclude that the Proposed Action of TVA issuing a Section 26a permit for shoreline construction activities as part of the Applicant's proposed mixed-use commercial facility and residential community along the Tennessee River waterfront of Nickajack Reservoir would not be a major federal action

significantly affecting the environment. Accordingly, an environmental impact statement is not required.



S. Dawn Booker
Senior Manager, NEPA Compliance
Environment & Sustainability

September 10, 2024

Date Signed

Preparers

NEPA Project Management

Dana Nelson, Environmental Program Manager – Document Preparation

Matthew Higdon, NEPA Specialist – NEPA Compliance and Document Preparation

Susan Housley, NEPA Specialist – NEPA Project Lead and Document Preparation

Other Contributors

Maria L. Aguirre, Terrestrial Zoologist – Terrestrial Ecology and Threatened and Endangered Species (Wildlife)

Todd Amacker, Biologist – Aquatic Community Ecology and Threatened and Endangered Species (Aquatic)

Nikki Berger, Supervisor – Navigation Program

Kelly Conger, Watershed Representative - Recreation

Carol Freeman, NEPA Specialist – Environmental Justice

Elizabeth Hamrick, Terrestrial Zoologist – Terrestrial Ecology and Threatened and Endangered Species (Wildlife)

Zachary P. Luttrell, Biologist – Aquatic Community Ecology and Threatened and Endangered Species (Aquatic)

Sara McLaughlin-Johnson, Terrestrial Ecology and Threatened and Endangered Species (Wildlife)

Mark L. Odom, Watershed Representative – Natural Heritage Reviewer

Callan Pierson, Specialist – Water Permits and Compliance

Derek J. Reaux, Archaeologist – Cultural Resources, National Historic Preservation Act

John Hunter Lewis Shelton, Biologist – Plant Ecology and Threatened and Endangered Species (Botany)

Carrie C. Williamson, Program Manager – Flood Risk

References

Avery, M. L. 2020. Rusty Blackbird (*Euphagus carolinus*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.rusbla.01>. Retrieved from <https://birdsoftheworld.org/bow/species/rusbla/1.0/introduction> (Accessed June 2024).

BDY Environmental. 2021. Mist Net Survey for Listed Bats, Former ADM Site. Davey Resources Group. Nashville, TN.

Brim Box, J. and J. Mossa. 1999. Sediment, land use, and freshwater mussels: Prospects and problems. *Journal of the North American Benthological Society* 18(1):99-117.

- Buehler, D. A., P. B. Hamel, and T. Boves. 2020. Cerulean Warbler (*Setophaga cerulea*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.cerwar.01>. Retrieved from <https://birdsoftheworld.org/bow/species/cerwar/1.0/introduction> (Accessed June 2024).
- Cink, C. L., P. Pyle, and M. A. Patten. 2020. Eastern Whip-poor-will (*Antrastomus vociferus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.whip-p1.01>. Retrieved from <https://birdsoftheworld.org/bow/species/easwpw1/1.0/introduction> (Accessed June 2024).
- Confer, J. L., P. Hartman, and A. Roth. 2020. Golden-winged Warbler (*Vermivora chrysoptera*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.gowwar.01>. Retrieved from <https://birdsoftheworld.org/bow/species/gowwar/1.0/introduction> (Accessed June 2024).
- Conway, C. J. 2020. Virginia Rail (*Rallus limicola*), version 1.0. In Birds of the World (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.virrai.01>. Retrieved from <https://birdsoftheworld.org/bow/species/virrai/cur/introduction> (Accessed June 2024).
- Davis, A. and Howard, E. 2005. Spring recolonization rate of monarch butterflies in eastern North America: New estimates from citizen-science data. *Journal of the Lepidopterists' Society*. 59(1): 1-5. Retrieved from [https://images.peabody.yale.edu/lepsoc/jls/2000s/2005/2005\(1\)1-Davis.pdf](https://images.peabody.yale.edu/lepsoc/jls/2000s/2005/2005(1)1-Davis.pdf) (Accessed November 2023).
- eBird Checklist. 2017. Checklist S38108791 – Observations made at Amnicola Marsh, Hamilton County, Tennessee. Cornell Lab of Ornithology, Ithaca, NY, USA. Retrieved from <https://ebird.org/checklist/S38108791> (Accessed December 2023).
- _____. 2021. Checklist S85619789 – Observations made at Baylor School, Hamilton County, Tennessee. Cornell Lab of Ornithology, Ithaca, NY, USA. Retrieved from <https://ebird.org/checklist/S85619789> (Accessed December 2023).
- _____. 2021a. Checklist S84892148 – Observations made at Riverport Fields, Hamilton County, Tennessee. Cornell Lab of Ornithology, Ithaca, NY, USA. Retrieved from <https://ebird.org/checklist/S84892148> (Accessed December 2023).
- Evans, M., E. Gow, R. R. Roth, M. S. Johnson, and T. J. Underwood. 2020. Wood Thrush (*Hylocichla mustelina*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.woothr.01>. Retrieved from

- <https://birdsoftheworld.org/bow/species/woothr/1.0/introduction> (Accessed June 2024).
- Executive Order 11988, Floodplain Management, Federal Register Vol. 42, No. 101, May 25, 1977. pp. 26951-26957. <https://www.archives.gov/federal-register/codification/executive-order/11988.html>.
- Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, Federal Register Vol. 80, No. 23, January 30, 2015. pp. 6425-6428.
- FEMA. 2016. Flood Insurance Study, Hamilton County, Tennessee, and Incorporated Areas. Flood Insurance Study Number 47065CV000B. <https://map1.msc.fema.gov/data/47/S/PDF/47065CV000B.pdf?LOC=47e229eb83ca48a5e3e5e453f89cb4>. (Accessed October, 2023).
- FEMA. 2023a. Preliminary Flood Insurance Study, Hamilton County, Tennessee, and Incorporated Areas, Volume 2 of 4. Flood Insurance Study Number 47065CV002C. <https://msc.fema.gov/portal/availabilitySearch?addcommunity=47065C&communityName=HAMILTON%20COUNTY#searchresultsanchor>. (Accessed October 2023).
- FEMA. 2023b. Preliminary Flood Insurance Study, Hamilton County, Tennessee, and Incorporated Areas, Volume 4 of 4. Flood Insurance Study Number 47065CV002C. <https://msc.fema.gov/portal/availabilitySearch?addcommunity=47065C&communityName=HAMILTON%20COUNTY#searchresultsanchor>. (Accessed October 2023).
- Frei, B., K. G. Smith, J. H. Withgott, P. G. Rodewald, P. Pyle, and M. A. Patten. 2020. Red-headed Woodpecker (*Melanerpes erythrocephalus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.rehwoo.01>. Retrieved from <https://birdsoftheworld.org/bow/species/rehwoo/1.0/introduction> (Accessed June 2024).
- Harvey, M. J., J. S. Altenbach, and T. L. Best. 2011. Bats of the United States and Canada. The John Hopkins University Press, Baltimore, MD. Arkansas Game and Fish Commission, Little Rock, Arkansas.
- Herkert, J. R., P. D. Vickery, and D. E. Kroodsmas. 2020. Henslow's Sparrow (*Centronyx henslowii*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.henspa.01>. Retrieved from <https://birdsoftheworld.org/bow/species/henspa/cur/introduction> (Accessed June 2024).
- Hughes, J. M. 2020. Black-billed Cuckoo (*Coccyzus erythrophthalmus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.bkbcuc.01>. Retrieved from <https://birdsoftheworld.org/bow/species/bkbcuc/cur/introduction> (Accessed June 2024).

- iNaturalist Community. 2023. Observations of Class Insecta within a 5 km radius of Bean Bowl Mixed-Use Development, observed from August 2007 to December 2023. Retrieved from <https://www.inaturalist.org> (Exported December 2023).
- Marti, C. D., A. F. Poole, L. R. Bevier, M.D. Bruce, D. A. Christie, G. M. Kirwan, and J. S. Marks. 2020. Barn Owl (*Tyto alba*), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.brnowl.01>. Retrieved from <https://birdsoftheworld.org/bow/species/brnowl/cur/introduction> (Accessed June 2024).
- McDonald, M. V. 2020. Kentucky Warbler (*Geothlypis formosa*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.kenwar.01>. Retrieved from <https://birdsoftheworld.org/bow/species/kenwar/1.0/introduction> (Accessed June 2024).
- National Geographic. 2002. Field Guide to the Birds of North America (Fourth Edition). National Geographic Society, Washington D.C.
- Nolan Jr, V., E. D. Ketterson, and C. A. Buerkle. 2020. Prairie Warbler (*Setophaga discolor*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.prawar.01>. Retrieved from <https://birdsoftheworld.org/bow/species/prawar/1.0/introduction> (Accessed June 2024).
- Petit, L. J. 2020. Prothonotary Warbler (*Protonotaria citrea*), version 1.0. In Birds of the World (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.prowar.01>. Retrieved from <https://birdsoftheworld.org/bow/species/prowar/1.0/introduction> (Accessed June 2024).
- Pickens, B. A. and B. Meanley. 2020. King Rail (*Rallus elegans*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.kinrai4.01>. Retrieved from <https://birdsoftheworld.org/bow/species/kinrai4/cur/introduction> (Accessed June 2024).
- Poole, A. F., P. E. Lowther, J. P. Gibbs, F. A. Reid, and S. M. Melvin. 2020. Least Bittern (*Ixobrychus exilis*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.leabit.01>. Retrieved from <https://birdsoftheworld.org/bow/species/leabit/cur/introduction> (Accessed June 2024).
- Powell, R., Conant, R., and J. T. Collins. 2016. A Field Guide to Reptiles and Amphibians: Eastern and Central North America. 4th edition. Houghton Mifflin, Boston, MA.

- Reitsma, L. R., M. T. Hallworth, M. McMahon, and C. J. Conway. 2020. Canada Warbler (*Cardellina canadensis*), version 2.0. In Birds of the World (P. G. Rodewald and B. K. Keeney, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.canwar.02>. Retrieved from <https://birdsoftheworld.org/bow/species/canwar/cur/introduction> (Accessed June 2024).
- Renfrew, R., A. M. Strong, N. G. Perlut, S. G. Martin, and T. A. Gavin. 2020. Bobolink (*Dolichonyx oryzivorus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.boboli.0>. Retrieved from <https://birdsoftheworld.org/bow/species/boboli/1.0/introduction> (Accessed June 2024).
- Schweitzer, D.F. and S. Jepsen. 2014. Monarch: *Danaus plexippus*. NatureServe Explorer [web application]. NatureServe, Arlington, VA. Retrieved from https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.108245/Danaus_plexippus (Accessed June 2024).
- Steeves, T. K., S. B. Kearney-McGee, M. A. Rubega, C. L. Cink, and C. T. Collins. 2020. Chimney Swift (*Chaetura pelagica*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.chiswi.01> Retrieved from <https://birdsoftheworld.org/bow/species/chiswi/1.0/habitat> (Accessed June 2024).
- Sutherland, A. B., J. L. Meyer, and E. P. Gardiner. 2002. Effects of Land Cover on Sediment Regime and Fish Assemblage Structure in Four Southern Appalachian Streams. *Freshwater Biology*. 47(9):1791-1805.
- Tennessee Department of Environment and Conservation (TDEC). 2024. *Final 2024 303 (d) List*. Division of Water Resources. Nashville, TN. April 2024. https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr_wq_impaired-waters-list-2024-final.xlsx
- Tennessee Valley Authority (TVA). 1981. Class Review of Repetitive Actions in the 100-Year Floodplain, Federal Register Vol. 46, No. 76, April 21, 1981. pp. 22845-22846. <https://www.govinfo.gov/content/pkg/FR-1981-04-21/pdf/FR-1981-04-21.pdf>
- Tennessee Watchable Wildlife. 2024. Osprey. Tennessee Wildlife Resources Agency. Retrieved from <https://www.tnwatchablewildlife.org/files/Osprey.pdf> (Accessed June 2024).
- Tennessee Wildlife Resources Agency (TWRA). 2001. Report. Key to the Crayfishes of Tennessee, abstracted from H.H. Hobbs Jr. 1972, H.H. Hobbs Jr. 1981, and Bouchard 1978, and Annotated List of the Crayfishes of Tennessee by Carl E. Williams, Rick D. Bivens, and Bart D. Carter. Updated 2017. 81 pp.
- _____. 2024. Peregrine Falcon, *Falco peregrinus*. TWRA, Nashville, TN. Retrieved from <https://www.tn.gov/twra/wildlife/birds/waterbirds/peregrine->

[falcon.html#:~:text=Best%20places%20to%20see%20in,Great%20Smoky%20Mountain%20National%20Park](#) (Accessed June 2024).

- _____. 2024a. Whooping Crane, *Grus americana*. TWRA, Nashville, TN. Retrieved from <https://www.tn.gov/twra/wildlife/birds/whooping-crane.html> (Accessed June 2024).
- Tuttle, M. D. 1976. Population ecology of the gray bat (*Myotis grisescens*): philopatry, timing, and patterns of movement, weight loss during migration, and seasonal adaptive strategies. Occasional Papers of the Museum of Natural History, University of Kansas, 54:1-38. Retrieved from <https://www.merlintuttle.org/wp-content/uploads/2018/04/Population-Ecology-of-the-Gray-Bat-Myotis-grisescens-Philopatry-Timing-and-Patterns-of-Movement-Weight-Loss-During-Migration-and-Seasonal-Adaptive-Strategies.-1976.-By-Merlin-D.-Tuttle.pdf> (Accessed December 2023).
- U.S. Climate Data. 2024. Elizabethton-Tennessee, Climate and Weather Averages. Version 3.0. Retrieved from: <https://www.usclimatedata.com/climate/chattanooga/tennessee/united-states/ustn0084> (Accessed May 21, 2024).
- U.S. Fish and Wildlife Service (USFWS). 1982. Gray Bat Recovery Plan. Minneapolis, MN. 26pp. Retrieved from <https://www.nrc.gov/docs/ML1214/ML12146A326.pdf> (Accessed December 2023).
- _____. 2001. Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States, Federal Register 66:123. Retrieved from <https://www.govinfo.gov/content/pkg/FR-2001-06-26/pdf/01-15791.pdf#page=1> (Accessed December 2023).
- _____. 2007. National bald eagle management guidelines. Arlington (VA): U.S. Fish and Wildlife Service, Division of Migratory Bird Management. 23 p. Retrieved from https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines_0.pdf (Accessed December 2023).
- _____. 2007a. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp. Retrieved from <https://ecos.fws.gov/ServCat/DownloadFile/45796?Reference=44940> (Accessed December 2023).
- _____. 2020. Range-Wide Indiana Bat Survey Guidelines. U.S. Fish and Wildlife Service, Region 3, Bloomington, MN. Retrieved from <https://www.fws.gov/sites/default/files/documents/Range-wide-Indiana-bat-survey-guidelines-March-23-2020.pdf> (Accessed June 2024).
- _____. 2021. Species Status Assessment Report for the Tricolored Bat (*Perimyotis subflavus*), Version 1.1. December 2021. Hadley, MA. Retrieved from <https://ecos.fws.gov/ServCat/DownloadFile/221212> (Accessed December 2023).

- _____. 2022. Species Status Assessment Report for the Northern long-eared bat (*Myotis septentrionalis*), Version 1.1. March 22, 2022. Bloomington, MN. Retrieved from <https://ecos.fws.gov/ServCat/DownloadFile/215290> (Accessed December 2023).
- _____. 2023. Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. U.S. Fish and Wildlife Service, Region 3, Bloomington, MN. Retrieved from https://www.fws.gov/sites/default/files/documents/USFWS_Range-wide_IBat_%26_NLEB_Survey_Guidelines_2023.05.10_0.pdf (Accessed November 2023).
- _____. 2024. Environmental Conservation Online System: Whooping Crane (*Grus americana*) Species Profile. Retrieved from <https://ecos.fws.gov/ecp/species/758> (Accessed June 2024).
- U.S. Water Resources Council. 1978. Guidelines for Implementing Executive Order 11988, Floodplain Management. Federal Register Vol. 43, No. 29, February 10, 1978. pp. 6030-6054. https://www.energy.gov/sites/prod/files/2015/09/f26/Floodplain%20Management%20Guidelines_1978.pdf
- Watts, B. D. 2020. Yellow-crowned Night Heron (*Nyctanassa violacea*), version 1.0. In Birds of the World (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.ycnher.01>. Retrieved from <https://birdsoftheworld.org/bow/species/ycnher/cur/introduction> (Accessed June 2024).
- Whitacre, Stacey, Allison Maier, and Scott Butler. 2021. *Phase I Cultural Resources Survey of the Bean Bowl Tract, Hamilton County, Tennessee*. Report prepared by Brockington and Associates, Inc, Atlanta, GA. Report prepared for Bean Bowl, LLC, Chattanooga, TN.
- Whitaker, J. O. 1996. Field guide to North American Mammals. National Audubon Society. Alfred A. Knopf, New York.

Attachment 1 – Categorical Exclusion Checklist 49274

This page intentionally left blank

Categorical Exclusion Record for Proposed TVA Actions

Categorical Exclusion Number Claimed EA created	Organization ID Number Tri ID 4021520	Tracking Number (NEPA Administration Use Only) 49274
Form Preparer Heather H Sellers	Project Initiator/Manager Heather H Sellers	Business Unit P&NR - Commercial & Public Recreation
Project Title 26a Permit Category 3 TRIRIGA ID 4021520 Scott Williamson Nickajack Reservoir		Hydrologic Unit Code
Description of Proposed Action (include Anticipated Dates of Implementation) For Proposed Action See Attachments and References		<input type="checkbox"/> Continued on Page 3 (if more than one line)
Initiating TVA Facility or Office Nickajack Reservoir	TVA Business Units Involved in Project	
Location (City, County, State) Hamilton County, TN, County, State: Hamilton County, TN Land Tract(s): Acquisition N/A 0 Map Sheet(s): SE C/D Stage		

Parts 1 through 4 verify that there are no extraordinary circumstances associated with this action:

Part 1. Project Characteristics

Is there evidence that the proposed action...	No	Yes	Commitment	Information Source for Insignificance
1. Is major in scope?	X			Nelson, Dana M. 05/15/2024
2. Is part of a larger project proposal involving other TVA actions or other federal agencies?		X		For comments see attachments
* 3. Involves non-routine mitigation to avoid adverse impacts ?	X		No	Nelson, Dana M. 05/15/2024
4. Is opposed by another federal, state, or local government agency?	X			Nelson, Dana M. 05/15/2024
* 5. Has environmental effects which are controversial?	X			Nelson, Dana M. 05/15/2024
* 6. Is one of many actions that will affect the same resources?		X		For comments see attachments
7. Involves more than minor amount of land?		X		For comments see attachments

*If "yes" is marked for any of the above boxes, consult with NEPA Administration on the suitability of this project for a categorical exclusion.

Environmental Assessment and Finding of No Significant Impact

Part 2. Natural and Cultural Features Affected

Would the proposed action...	No	Yes	Permit	Commitment	Information Source for Insignificance
1. Potentially affect endangered, threatened, or special status species?		X	No	Yes	For comments see attachments
2. Potentially affect historic structures, historic sites, Native American religious or cultural properties, or archaeological sites?		X	No	Yes	For comments see attachments
3. Potentially take prime or unique farmland out of production?	X		No	No	For comments see attachments
4. Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Nelson, Dana M. 05/15/2024
5. Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Nelson, Dana M. 05/15/2024
6. Potentially affect wetlands?	X		No	No	For comments see attachments
7. Potentially affect water flow, stream banks or stream channels?		X	Yes	No	For comments see attachments
8. Potentially affect the 100-year floodplain?		X	No	No	For comments see attachments
9. Potentially affect ecologically critical areas, federal, state, or local park lands, national or state forests, wilderness areas, scenic areas, wildlife management areas, recreational areas, greenways, or trails?		X	No	No	For comments see attachments
10. Contribute to the spread of exotic or invasive species?	X		No	No	For comments see attachments
11. Potentially affect migratory bird populations?	X		No	No	Nelson, Dana M. 09/06/2024
12. Involve water withdrawal of a magnitude that may affect aquatic life or involve interbasin transfer of water?	X		No	No	Nelson, Dana M. 05/15/2024
13. Potentially affect surface water?		X	No	No	For comments see attachments
14. Potentially affect drinking water supply?	X		No	No	Nelson, Dana M. 05/15/2024
15. Potentially affect groundwater?	X		No	No	For comments see attachments
16. Potentially affect unique or important terrestrial habitat?	X		No	No	For comments see attachments
17. Potentially affect unique or important aquatic habitat?	X		No	No	For comments see attachments

Part 3. Potential Pollutant Generation

Would the proposed action potentially (including accidental or unplanned)...	No	Yes	Permit	Commitment	Information Source for Insignificance
1. Release air pollutants?		X	No	No	For comments see attachments
2. Generate water pollutants?	X		No	No	Nelson, Dana M. 05/15/2024
3. Generate wastewater streams?	X		No	No	Nelson, Dana M. 05/15/2024
4. Cause soil erosion?		X	Yes	No	For comments see attachments
5. Discharge dredged or fill materials?		X	Yes	No	For comments see attachments
6. Generate large amounts of solid waste or waste not ordinarily generated?		X	Yes	No	For comments see attachments
7. Generate or release hazardous waste (RCRA)?		X	No	No	For comments see attachments
8. Generate or release universal or special waste, or used oil?		X	No	No	For comments see attachments
9. Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Nelson, Dana M. 05/15/2024
10. Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?		X	Yes	No	For comments see attachments
11. Involve disturbance of pre-existing contamination?	X		No	No	Nelson, Dana M. 05/15/2024
12. Generate noise levels with off-site impacts?		X	No	No	For comments see attachments
13. Generate odor with off-site impacts?	X		No	No	Nelson, Dana M. 05/15/2024
14. Produce light which causes disturbance?	X		No	No	Nelson, Dana M. 05/15/2024
15. Release of radioactive materials?	X		No	No	Nelson, Dana M. 05/15/2024
16. Involve underground or above-ground storage tanks or bulk storage?	X		No	No	Nelson, Dana M. 05/15/2024
17. Involve materials that require special handling?	X		No	No	Nelson, Dana M. 05/15/2024

Environmental Assessment and Finding of No Significant Impact

Other Review Signatures (as required by your organization)

Attachments/References

Description of Proposed Action Continued from Page 1
 Williamson, Scott - Bean Bowl, LLC - 1161.45 X 100 commercial marina facility with associated fill for land based residential development.

CEC General Comment Listing

1.	Plans or Drawings By: Heather H Sellers Files: jackson - bean bowl - plans.pdf	11/15/2022 11/15/2022	2,015.52 Bytes
2.	Correspondence - Cost Recovery Acceptance Letter (Signed by Applicant) By: Heather H Sellers Files: TVA Cost Recovery form Bean Bowl LLC 11.04.22.pdf	11/15/2022 11/15/2022	346.19 Bytes
3.	Map - General By: Heather H Sellers Files: jackson - bean bowl - map.pdf	11/15/2022 11/15/2022	71.43 Bytes
4.	Application - Signed by TVA There was an error uploading file Application_TVASigned.pdf. The file you are uploading is 3927051 bytes. It is larger than the allowed 3000000 bytes. By: Heather H Sellers	11/15/2022	
5.	Plans or Drawings By: Heather H Sellers Files: Judd Road Marina Dimension Plan-11-8-22.pdf	11/15/2022 11/15/2022	716.42 Bytes
6.	Site Inspection Checklist By: Heather H Sellers Files: SIC_form.pdf	11/15/2022 11/15/2022	271.94 Bytes
7.	Bat Strategy Form By: Heather H Sellers Files: BAT FORM.pdf	11/15/2022 11/15/2022	1,066.51 Bytes
8.	Application - Signed by Applicant By: Heather H Sellers Files: jackson - bean bowl - 26a.pdf	11/15/2022 11/15/2022	911.01 Bytes
9.	Photo By: Heather H Sellers Files: jackson - bean bowl - photos..pdf	11/15/2022 11/15/2022	732.45 Bytes
10.	Applicant Disclosure Form By: Heather H Sellers Files: jackson - bean bowl - adf no.pdf	11/15/2022 11/15/2022	85.83 Bytes
11.	Updated plans to reflect new lakeward extension of 100 feet from NSP. Alternative analysis and other information. By: Heather H Sellers Files: BeanBowl_TVA Permit Narrative Supplement_Narrative and Figures ONLY_July 2023_4.pdf BeanBowl_TVA Permit Narrative Supplement_Narrative and Figures ONLY_July 2023_3.pdf BeanBowl_TVA Permit Narrative Supplement_Narrative and Figures ONLY_July 2023_2.pdf BeanBowl_TVA Permit Narrative Supplement_Narrative and Figures ONLY_July 2023_1.pdf Bean Bowl Most Updated Dock Plans C2.08 (002).pdf	08/02/2023 08/02/2023 08/02/2023 08/02/2023 08/02/2023 08/02/2023	1,285.71 Bytes 1,944.93 Bytes 2,309.61 Bytes 2,890.61 Bytes 824.24 Bytes
12.	Floodplains questions and applicant responses By: Heather H Sellers Files: ClarificationEmail.pdf	08/14/2023 08/14/2023	229.62 Bytes
13.	Updated design drawing - February 14, 2024 Additional plan details for bank stabilization, grading, road profile, and utilities are in BCC Folder due to size limitations. By: Dana M Nelson Files: Part1_19140-BeanBowl-Site Plan Set-26a-2-14-24.pdf Part2_19140-BeanBowl-Site Plan Set-26a-2-14-24.pdf	05/15/2024 05/15/2024 05/15/2024	2,729.50 Bytes 2,752.49 Bytes

Environmental Assessment and Finding of No Significant Impact

14.	Supporting project information and new fill quantities in the floodplain		
	By: Dana M Nelson	06/28/2024	
	Files: Re_RESPONSE REQUESTED_REVIEW REQUESTED by June 14, 2024_Bean Bowl Bat Avoidance - Draft USFWS Consultation Letter & draft EA questions.pdf	06/28/2024	427.11 Bytes
15.	PN Comments, 3 total		
	By: Heather H Sellers	08/02/2024	
	Files: PublicNoticeComments.pdf	08/02/2024	437.44 Bytes
CEC Comment Listing			
Part 1 Comments			
2.	This project has been elevated to an environmental assessment. Additionally, TVA approval will include a shoreline construction permit under Section 26a of the TVA Act associated with the back lying private development.		
	By: Dana M Nelson	05/15/2024	
6.	The proposed action is consistent with TVA's 1999 Shoreline Management Policy.		
	By: Dana M Nelson	05/15/2024	
7.	The proposed development is approximately 70.98 land-based acres and 5.6 water-based acres. TVA's jurisdiction within the 500-yr floodplain is approximately 13.5 land-based acres and 5.6 water-based acres. Since the 500-yr floodplain transects portions of the development plan (lots, roads, structures) the area of potential effect was expanded to include those footprints; thus, TVA's review boundary is approximately 28 acres which includes the land and water areas.		
	By: Dana M Nelson	07/15/2024	
Part 2 Comments			
1.	Heritage Reviewer Species List		
	By: Mark L Odom	12/13/2022	
	Files: 49274 Heritage_Export_26A_Points_Project_ID_4021520__20221205_174657.pdf	12/13/2022	100.20 Bytes
1.	A query of the TVA Regional Natural Heritage database (10/23/2023) indicates 11 federally listed, proposed, or under review aquatic species (2 fish, 8 mussels and 1 snail) and 8 additional state listed species (1 crayfish and 7 fish) within the Tennessee River (0603000112) and South Chickamauga Creek (0602000109) 10-digit HUC watersheds of the affected project area (Aquatics Table 1). Of these records, 2 fish, 5 mussels, and 1 snail are considered historical or extirpated because the records are greater than 25 years old. As for the 7 listed fish species that are considered extant, their preferred habitat does not exist within the vicinity of the project, therefore, would be unlikely to occur within the proposed work area. Additionally, they are all considered a lotic species and would thus be unaffected by the project as they can relocate from the action area if they are present when work is ongoing. The remaining 3 mussels would unlikely occur within the project area as the action area is considered marginal habitat for mussels and mostly land based. The final species considered extant is the state listed Chickamauga Crayfish. This species is unlikely to occur in the project area, with the proposed work being in the mainstem Tennessee River, as it prefers moderate flowing, shallow stream. In Tennessee it occurs in South Chickamauga Creek, which is upstream from the project (Williams and Bivens, 2001). Therefore, no impacts to aquatic endangered, threatened, or special status species are anticipated to occur. Appropriate best management practices (BMPs) would be implemented during construction in order to prevent silt and sediment from entering Nickajack Reservoir. With proper implementation of BMPs, no impacts to federally listed endangered, threatened, or special status species are anticipated to occur.		
	By: Zachary P Luttrell	06/14/2024	
	Files: CEC_49274_Aquatics_Table_26a_Scott Williamson.docx	10/24/2023	39.08 Bytes
1.	Literature Cited		
	Williams, C.E. and R.D. Bivens. 2001. Annotated list of the crayfishes of Tennessee. Open file report (April 2001) of the Tennessee Wildlife Resources Agency, Talbott, Tennessee. Available: http://www.homestead.com/twra4streams/files/Crayfish.PDF		
	By: Zachary P Luttrell	10/24/2023	
1.	A January 2024 query of the TVA Natural Heritage Database indicates that eight state-listed plant species and two federal listed species has been previously reported from within five miles of the proposed project. Four federally listed plant species are known from Hamilton County, Tennessee (map). Review of maps, aerial photography, and knowledge of rare plants known from the region suggest that the proposed project work would not impact habitat for rare species because of previous disturbance within the project footprint. The proposed project would have no effect on federally listed plants.		
	By: John H Shelton	01/08/2024	
	Files: Scott Williamson Nickajack Reservoir Table.docx	01/08/2024	28.86 Bytes

Environmental Assessment and Finding of No Significant Impact

1. TVA has made a no effect determination for dromedary pearlymussel, orangefoot pimpleback, pink mucket, rough pigtoe, Tennessee clubshell, Tennessee pigtoe, large-flowered skullcap, small whorled pogonia, Virginia spiraea, and bald eagle. TVA has determined that the proposed actions would not jeopardize the continued existence of whooping crane, tricolored bat, and monarch butterfly. Lastly, TVA has determined that the Proposed Actions may affect but are not likely to adversely affect gray bat, Indiana bat, northern long-eared bat, and tricolored bat.

The USFWS has concurred with TVA's effect determinations for federally listed/protected species in the Project Area. See attached for signed concurrence letter from USFWS.
By: Maria L Aguirre 08/22/2024
Files: Concurrence_Letter_2024-0029656_TVA_Bean Bowl Development in Hamilton Co_Reply_signed.pdf 08/22/2024 277.59 Bytes
2. See environmental assessment. In a letter dated March 20, 2024, the Tennessee Historic Preservation Office concurred with TVA's finding that the proposed project would not adversely affect historic properties.
By: Dana M Nelson 05/15/2024
3. The majority of the proposed project location has been previously developed for industrial activity.
By: Dana M Nelson 05/15/2024
8. This CEC went to an EA (2024-15 Bean Bowl Development Section 26a Approval). On 09/03/2024, the applicant forwarded an 08/30/2024 email from the City stating that the 1200 Judd Rd No-Rise review is complete and community acknowledgement has been recommended.
By: Carrie C Williamson 09/03/2024
9. Review of TVA heritage data shows 13 Heritage Natural Areas within 3 miles of the project site. This project would not affect these resources due to its nature (residential development, marina, bank stabilization) and distance from these resources.
By: Mark L Odom 12/13/2022
9. Riverpoint walking trail begins 0.6 miles NE of the project area. The trail continues south, intersecting with Judd Road, as indicated by a brick crosswalk. Judd Road is the only access road to the project area. Project materials transported by land would likely affect Riverpoint/Tennessee Riverwalk traffic. Any damage that may cause a safety concern to trail users should be reported to the Hamilton County Parks and Recreation Department and City of Chattanooga. There are stop signs along both approaches of the Riverwalk at Judd Road consistent with all of the public roadway crossings in the vicinity and the guidance found in the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), 2023 Edition. These measures would minimize impacts to the trail and to those who use the trail.
By: Kelly N Conger 07/10/2024
Files: 49274_BeanBowl.pdf 06/26/2024 1,115.61 Bytes
49274_StreetView.jpg 06/17/2024 397.08 Bytes
10. Construction activities would not involve moving aquatic species or water from different locations, and equipment and materials used for the project would be clean and free of debris that could introduce exotic species and adversely affect aquatic habitat. Thus, the project would not contribute to the spread of exotic or invasive aquatic species.
By: Zachary P Luttrell 10/24/2023
10. The proposed project would not contribute to the spread of exotic or invasive plant species because the project area already contains a sizable proportion of non-native species. These non-native, invasive plants are distributed widely throughout the region and implementation of the proposed project would not change this situation.
By: John H Shelton 01/08/2024
13. Short term water pollutants; such as sedimentation, may occur as a result of the proposed construction activities. Standard construction and erosion control BMPs 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.
By: Dana M Nelson 05/15/2024
15. For the proposed project, adverse impacts to groundwater are expected to be negligible. Soil would be disturbed during construction activities including grading and earthmoving. This is not expected to adversely affect geologic conditions directly or indirectly. Clearing and grading would likely result in predominantly shallow to moderate depth ground disturbances with greater soil disturbance depths expected for utilities, foundations, and piping. Ground disturbance activities are not expected to exceed depths that may impact drinking supplies (typically 50 to 250 feet beneath the land surface [USGS 2016]). Clearing, grading, and development of the landscape including vegetation clearing, increases in impermeable surfaces, and soil compaction are expected to result in minor impacts to shallow aquifers as water infiltration is reduced. The potential for groundwater contamination during the construction and operation of the proposed project would be mitigated by implementation of construction BMPs and compliance with applicable permits and regulatory requirements. US Geological Survey (USGS). 2016. Groundwater Quality in the Valley and Ridge and Piedmont and Blue Ridge Carbonate-Rock Aquifers, Eastern United States. Fact Sheet 2016-3079. September 2016

By: Dana M Nelson 06/07/2024
16. No uncommon plant communities have been previously reported from near the project area. The site has been heavily disturbed in the past and is incapable of supporting plant communities with significant conservation value. Implementation of the proposed project would not potentially affect unique or important terrestrial habitat.
By: John H Shelton 01/08/2024
17. There is no federally designated critical habitat within the Tennessee River (0603000112) and South Chickamauga Creek (0602000109) 10-digit HUC watershed. Therefore, the proposed actions would result in no adverse modifications to unique or important aquatic habitat.
By: Zachary P Luttrell 10/24/2023

Environmental Assessment and Finding of No Significant Impact

6. In a letter dated September 19, 2019, S&ME identified potential waters of the United States across a 70.98-acre review area that comprised the entire Site ("USACE Preliminary Jurisdictional Determination and TDEC Hydrologic Determination Request"). This letter identified two potential wetlands, two potential watercourses, and four open water ponds on the Site. However, subsequent USACE and TDEC Site visits determined that no streams, wetlands, or jurisdictional ponds were present onsite. Consequently, these features were removed from further regulatory correspondence. TDEC provided a letter of concurrence in response to a TDEC HD Request submitted September 19, 2019 and updated on September 30, 2019. This letter of concurrence states that the assessed watercourses are wet weather conveyances (WWCs) and alterations "shall require no notice or approval" provided activities are completed in accordance with Tennessee Code Ann. § 69-3-108(q).
 By: Mark L Odom 06/18/2024
 Files: 49274 Extraction_Appendix 2. Aquatic Resource 01/25/2024 66.00 Bytes
 Documentation Compiled 31.pdf
7. The proposed project involves the construction of a residential development, marina, and bank stabilization on the reservoir shoreline. With implementation of best management practices as listed in TVA's 26a permit Standard Conditions for this type of activity, effects will be minimal to water flow, stream banks, and stream channels.
 By: Mark L Odom 06/07/2024
7. There may be temporary and insignificant impacts to the stream bank as a result of the proposed action. The contractor would be guided by the BMP's outlined in state and/or local permit documents. Impacts to water flow and stream channel would be minor and insignificant.
 By: Zachary P Luttrell 10/24/2023
- Part 3 Comments
1. It is anticipated that implementation of the proposed project would require the use of both gasoline and diesel-powered equipment which would emit the air pollutants normally associated with mobile fossil fuel powered equipment. All diesel equipment would use low sulfur fuel and are expected to be equipped with all required pollution controls. The increase in emissions from the equipment would be minor, temporary, and result in a minimal amount of air pollutants that will be of no environmental consequence. In addition, standard construction BMPs, such as dust suppression, would reduce environmental impacts to the point that no special mitigation measures would be required.
 By: Dana M Nelson 05/15/2024
4. The level of land disturbance associated with the proposed development is anticipated to be temporary and result in minor soil erosion, which can be effectively controlled with standard construction BMPs. Additionally, if greater than one acre of land is disturbed, at a given period of time, the Applicant would be required to obtain coverage under the TDEC 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Associated with Construction Activity (TNR100000). Coverage would require development of a site-specific Stormwater Pollution Prevention Plan, which would detail applicable BMPs to minimize surface water impacts from erosion of sediment, solid waste, chemicals usage, equipment usage and maintenance, dust control, and septic issues.
 By: Dana M Nelson 05/15/2024
5. Shoreline stabilization is considered fill material; therefore, requires §401 Water Quality Certification and USACE §404 permit.
 By: Dana M Nelson 05/15/2024
6. Solid waste would be generated during the clearing, construction, and operation of the proposed development. Waste associated with construction would likely consist of organic material, building material waste, and excess debris associated with clearing, excavation, and grading. Additionally, construction wastes would likely include general waste produced by office and personnel activities and wastes associated with on-site maintenance of construction vehicles and equipment. The Applicant would be responsible for maintaining a spill kit of sufficient supplies onsite to clean up and/or prevent a further release of hydraulic fluids or other petroleum products to the land or water. Solid wastes associated with operation of the mixed-use community would likely include small amounts of garbage and general wastes. The Applicant is responsible for ensuring that all waste will be properly contained, handled, and disposed of per local, State, and federal ordinances, laws, and regulations. Therefore, solid waste impacts are expected to be negligible.
 By: Dana M Nelson 06/07/2024
7. Construction and demolition debris may contain hazardous or toxic materials, which require special handling and disposal. TN Rule 0400-12-01-.03(1)(b) requires that a person who generates a solid waste must determine if that waste is a hazardous waste. The method to use in making the determination is outlined in that same rule. Any person owning or operating a new or existing facility that treats, stores, or disposes of a hazardous waste must obtain a hazardous waste permit from the Tennessee Division of Solid Waste Management. The Applicant is responsible for ensuring that all waste will be properly contained, handled, and disposed of per local, State, and federal ordinances, laws, and regulations. Therefore, hazardous waste impacts are expected to be negligible. Accessed June 7, 2024: <https://www.tn.gov/environment/program-areas/solid-waste/hazardous-waste-management/hw-determination-matrix.html>
 By: Dana M Nelson 06/07/2024
8. When equipment is utilized on site, a spill kit of sufficient supplies to clean up and/or prevent a further release of hydraulic fluids or other petroleum products to the land or water must be maintained on site. The cleanup, disposal and reporting requirements of any such spill must be completed according to State and Federal regulations.
 By: Dana M Nelson 05/15/2024
10. A certified asbestos inspector must determine the presence, location, quantity, and condition of any asbestos containing material (ACM) or presumed ACM. Any demolition or renovation of a structure that involves greater than threshold amounts of regulated ACM is required to submit a 10-day notice to the TDEC and to obtain an asbestos demolition or removal permit. With adherence to the demolition permit, any impacts from ACM are expected to be negligible.
 By: Dana M Nelson 06/07/2024
12. Construction noise would be temporary and intermittent in nature because it would generally occur on weekdays during daylight hours which minimizes the impact on nearby receptors. As a result, adverse noise impacts associated with construction are expected to be minor.

Environmental Assessment and Finding of No Significant Impact

	By: Dana M Nelson	05/15/2024	
Part 4 Comments			
2.	The Applicant is responsible for utilizing standard construction safety practices to minimize the potential for accidents affecting the public.		
	By: Dana M Nelson	05/15/2024	
4.	Current conditions at the Site are characterized by vacant acreage left in the footprint of the former Archer Daniels Midland (ADM)/Central Soya Plant, an active truck maintenance facility, a small network of service roads, and mixed scrub and hardwood forests in the undeveloped northern section of the Site. The Applicant's proposed master-planned, mixed-use commercial facility and residential community would be consistent with other properties in the vicinity and along Nickajack Reservoir where mixed residential and commercial development are common. As a result, impacts on land use would be long-term and minor.		
	By: Dana M Nelson	06/07/2024	
5.	See environmental assessment.		
	By: Dana M Nelson	05/16/2024	
7.	The scenic attractiveness, integrity, and visibility of the Project Area would be altered by the Applicant's proposed mixed-use commercial facility and residential community. The change in visual character would be similar to the character of nearby lands in the viewshed, which include a mix of residential, commercial, and open space lands. The shoreline of the development would be within line of sight of the Chickamauga Hydroelectric Project National Register boundary, but the proposed residences and commercial dock visible from the Chickamauga Dam would be consistent with other shoreline developments in the area. As a result, impacts on visual resources would be minor.		
	By: Dana M Nelson	06/07/2024	
10.	It is anticipated that construction materials would be delivered by large trucks. A temporary traffic disruption would be anticipated during the delivery of materials; however, this disruption would be temporary and minor with appropriate traffic control measures. All transportation would adhere to traffic control measures in accordance with the requirements of the City, County, and DOT Traffic Departments.		
	By: Dana M Nelson	05/15/2024	
8.	Riverpoint walking trail begins 0.6 miles NE of the project area. The trail continues south, intersecting with Judd Road, as indicated by a brick crosswalk. Judd Road is the only access road to the project area. Project materials transported by land would likely affect Riverpoint/Tennessee Riverwalk traffic. Any damage that may cause a safety concern to trail users should be reported to the Hamilton County Parks and Recreation Department and City of Chattanooga. There are stop signs along both approaches of the Riverwalk at Judd Road consistent with all of the public roadway crossings in the vicinity and the guidance found in the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), 2023 Edition. These measures would minimize impacts to the trail and to those who use the trail.		
	By: Kelly N Conger	07/10/2024	
	Files: 49274_StreetView.jpg	06/17/2024	397.08 Bytes
8.	The lakeward extension of the proposed commercial marina plans have been restricted to a 100 ft lakeward extension, therefore minimizing impacts to water based recreation.		
	By: Kelly N Conger	07/10/2024	
9.	Please see attached navigation comments.		
	By: Nicole Berger	08/12/2023	
	Files: 4021520njr- 26A - Bean-Bowl Development - TRM 468L.docx	08/12/2023	14.85 Bytes
CEC Permit Listing			
Part 2 Permits			
7.	Aquatic Resource Alteration Permit		
	By: Mark L Odom	12/13/2022	
Part 3 Permits			
4.	National Pollutant Discharge Elimination System Permit (¿402 Clean Water Act)		
	By: Dana M Nelson	05/15/2024	
5.	Section 404 Permit (¿404 Clean Water Act)		
	By: Dana M Nelson	05/15/2024	
5.	State Water Quality Certification (¿401 Clean Water Act)		
	By: Dana M Nelson	05/15/2024	
6.	Solid Waste Handling/Landfill Permit		
	By: Dana M Nelson	05/15/2024	
10.	Asbestos Demolition or Removal Permit		
	By: Dana M Nelson	06/07/2024	
Part 4 Permits			
9.	Section 10 Permit (¿10 Rivers and Harbor Act)		
	By: Dana M Nelson	05/15/2024	

Environmental Assessment and Finding of No Significant Impact

CEC Commitment Listing

Part 2 Commitments

1. User Defined: The Applicant has committed to conduct tree removal outside of the Tennessee bat pup season (May 15– July 31).
By: Maria L Aguirre 08/22/2024
2. User Defined: Given the possibility of deeply buried deposits associated with three sites within the project boundary, TVA Cultural Compliance is placing a commitment on the proposed permit, requiring that ground disturbance cannot exceed 1.5 meters in total depth below ground surface.
By: Dana M Nelson 05/15/2024

This page intentionally left blank

**Attachment 2 – Tennessee State Historic Preservation Officer
Correspondence**

This page intentionally left blank

Subject: Section 26A Permit, Scott Williamson, Bean Bowl LLC, Nickajack Reservoir; CRMS 66661534453 - Project # SHPO0004634
Date: Wednesday, March 20, 2024 2:02:53 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**

2024-03-20 13:01:47 CDT

Dr. Michaelyn Harle
Tennessee Valley Authority
mharle@tva.gov

RE: Tennessee Valley Authority (TVA), Section 26A Permit, Scott Williamson, Bean Bowl LLC, Nickajack Reservoir; CRMS 66661534453, Project#: SHPO0004634, Hamilton County, TN

Dear Dr. Michaelyn Harle:

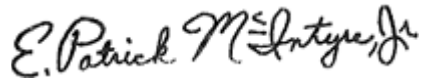
In response to your request, we have reviewed the cultural resources survey report and accompanying documentation submitted by you regarding the above-referenced undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation 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).

Considering the information provided, we find that no historic properties eligible for listing in the National Register of Historic Places will be affected by this undertaking.

If project plans are changed or archaeological remains 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. Please provide your Project # when submitting any additional information regarding this undertaking. Questions or comments may be directed to Kelley Reid, who drafted this response, at Kelley.Reid@tn.gov, +16157701099.

Sincerely,

A handwritten signature in black ink that reads "E. Patrick McIntyre, Jr." The signature is written in a cursive style with a large, stylized initial "E".

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

Ref:MSG13014672_eCsB1xiNF9zCheT4r7x

This page intentionally left blank

Attachment 3 – Floodplain Supporting Documentation

This page intentionally left blank

ENGINEERING "NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified engineer licensed to practice in the State of Tennessee.


It is to further certify that the attached technical data supports the fact that the proposed Judd Road Development will not impact the 100-year flood elevations, floodway elevations, and floodway widths on Tennessee River at published sections

in the Flood Insurance Study for City of Chattanooga, Hamilton County, Tennessee, dated February 3, 2016, and will not impact the 100-year flood elevations, floodway elevations, and floodway widths at unpublished cross-sections in the vicinity of the proposed development.

Attached are the following documents that support my findings:

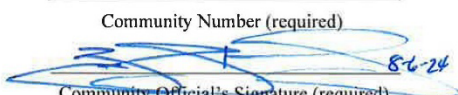
- No-Rise Analysis Report
- Flash drive containing HEC-RAS models

(Date) March 27, 2024

(Signature) 

Philip R. Schofield, P.E.
1122 Riverfront Parkway
Chattanooga, Tennessee 37402
Phone: 423-267-7613
Email: pschofield@ctiengr.com



FOR COMMUNITY USE ONLY:	
Community Acknowledgment	47065C
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Rejected	Community Number (required)
Zachary Wilcy, Interim Floodplain Administrator	 8-6-24
Community Official's Name and Title: (Please Print or Type)	Community Official's Signature (required)



Floodplain and Wetland Public Notices

Executive Order 11988 – Floodplain Management directs avoidance of adverse floodplain impacts to the extent possible whenever an eligible action is proposed. Executive Order 11990 – Protection of Wetlands directs avoidance of adverse wetland impacts to the extent practicable when new construction activities are proposed.

The projects listed below are categorically excluded actions known to result in minimal and insignificant environmental impacts once standard avoidance and minimization strategies are employed. However, because of the project and topographic constraints and minimizing impacts to other social, environmental, or structural resources, no practicable alternative may be available that would allow complete avoidance of impacts to floodplains and wetlands, which may require mitigation for minimizing impacts. Also, best management practices and activity-specific measures would be utilized throughout the project to minimize the adverse effects.

To further abide by the floodplain and wetland executive orders, TVA is seeking public comment on the avoidance or minimization of potentially adverse floodplain or wetland impacts for proposed categorically excluded activities subject to the orders (see Floodplain Class Review for activities exempted from individual No Practicable Alternative analysis and public notice [page 22845]).

Floodplain and Wetland Projects

[Public Notice for Proposed Fill in the 100-Year Floodplain](#)

[Proposed Grillage Surcharge on Existing Transmission Structure in the 100-Year Floodplain Notice](#)

CONTACT:

400 WEST SUMMIT HILL DRIVE

KNOXVILLE, TN 37902

(865) 632-2101

TVAINFO@TVA.GOV



posted 07/12/2024

Environmental Assessment and Finding of No Significant Impact

Public Notice - Tennessee Valley Authority (TVA)
No Practicable Alternative for
Proposed Fill in the 100-year Floodplain

July 12, 2024

Notice is hereby given that the Tennessee Valley Authority (TVA) is proposing to issue Section 26a approval in categorical exclusion checklist 49274 for about 71 acre-feet of fill to facilitate residential development in the 100-year floodplain at approximately Tennessee River Mile 468.0 on Nickajack Reservoir in Hamilton County, Tennessee.

Shown in the figure within the pink cloud, the fill would be located within the limits of the Tennessee River 100-year floodplain and is therefore subject to analysis under Presidential Executive Order 11988, Floodplain Management.

The fill is necessary to elevate proposed homesites in a mixed-use development. The applicant evaluated two additional potential development sites. They were either outside the area north of Chattanooga or would have also involved fill within the 100-year floodplain. The applicant considered reducing or eliminating residential development within the 100-year floodplain; however, this would fail to achieve the project's purposes of accommodating continued population growth of Hamilton County, providing housing in the historically underserved area north of City Center, generating additional property-tax revenue to the City and County and reinvigorating a long-neglected industrial site. Therefore, TVA has determined that there is no practicable alternative to the fill being located within the 100-year floodplain. To minimize adverse impacts, the applicant reduced the amount of fill from its original proposal, as well as reduced the amount of disturbance within the Tennessee River floodway. Additionally, the lowest floor of any residence would be at least one foot above the 100-year flood elevation, and thereby meet City of Chattanooga floodplain development regulations.

All practicable design measures to minimize harm to the floodplain have been identified by TVA. These measures include:

- All residences would have the lowest floor at least one foot above the 100-year flood elevation
- Onsite material within the 100-year floodplain will be relocated to the extent feasible and used as fill for residential construction

TVA has therefore concluded that the proposed project is consistent with Executive Order 11988 because:

1. There is no practicable alternative to placing about 71 acre-feet of fill in the floodplain
2. The proposed project would conform with applicable state and local floodplain protection standards
3. Identifiable impacts to the floodplain are negligible

Any party wishing to comment on the action's potential to affect floodplains should email comments to cwilliamson@tva.gov on or before July 25, 2024.

Proposed Fill in Tennessee River 100-yr Floodplain



September 29, 2023

1:9,028

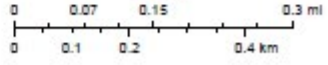
Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee

Area with Risk Due to Levee

Flood Hazard Boundaries

- Limit Lines
- NP
- SPHA / Flood Zone Boundary
- Flowage Easement Boundary



Earl Community Maps Contributor, Tennessee STS GIS, © OpenStreetMap, Microsoft, Earl HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METV, NASA, USGS, EPA, NPS, US Census Bureau, USDA
TVA GIS & Mapping
Mapbox

This map was created using the Enterprise GIS Maps application. All rights reserved.



Proposed Fill Area

This page intentionally left blank

**Attachment 4 – Species Descriptions for Migratory Birds of
Conservation Concern**

This page intentionally left blank

Black-billed cuckoo prefers densely vegetated areas such as forest edges, thickets, brushy hillsides, fencerows, and successional vegetation; they are often associated with water. This species conceals their nests in trees, saplings, bushes, and vines (Hughes 2020).

Bobolink is a long-distance migratory bird that prefers large, older grass fields with low amounts of vegetative cover where they forage on grains, seeds, and invertebrates. This species nests in pastures and hayfields primarily in the northeastern U.S. Small breeding populations in western North Carolina and north-central Kentucky are also known (Renfrew et al. 2020).

Canada warbler breeds in Canada, the northeastern U.S., and in higher elevations of the Appalachian Mountains (approximately 1,000-1,900 meters), as far south as Tennessee and Georgia. Canada warbler prefers mixed forests with shrubbery within proximity to water. In the southern U.S., they tend to be found in naturally disturbed areas with abundant rhododendron and mountain laurel (Reitsma et al. 2020).

Cerulean warbler nests high in the canopy of mature deciduous forests in the eastern U.S. They can be found in riparian bottomlands or dry mountain ridge-tops but typically not in between. (Buehler et al. 2020).

Chimney swift is associated with human settlement and primarily use chimneys as nesting habitat; they forage over a variety of habitats, including open terrain, forests, and residential areas (Steeves et al. 2020).

Eastern whip-poor-will nests directly on leaf litter in dry deciduous or mixed forests with little underbrush. Forest composition is not as important as the degree of openness in their breeding habitat. This species forages at dusk and dawn by sallying on insects (Cink et al. 2020).

Golden-winged warbler nests in higher to moderate elevations of the Appalachian Mountains. In North Carolina, they have been found at elevations of 700 to 1460 meters. They prefer surface coal mine lands and clear cuts composed of grasses, shrubs, and some saplings or small trees. They nest on the ground at the base of a thick, leafy plant that can obscure the nest. They can also nest on forest edges (Confer et al. 2020).

Henslow's sparrow can be found in prairies and grasslands with tall, thick vegetation, brushy areas, hedgerows, and wet meadows. They place their nests on or close to the ground in thick litter or large clumps of grass (Herkert et al. 2020).

Kentucky warbler nests on the ground or on small shrubs in mature deciduous forests with a dense understory and a matrix of shaded and well-lit areas. This species can be typically found in bottomlands and near streams. (McDonald 2020).

Prairie warbler are forage gleaners that breed in early successional shrubby habitats with open canopies, such as regenerating forests, and forest edges with prairie. This species places their nests on small trees or shrubs (Nolan et al. 2020).

Prothonotary warbler prefers bottomland hardwood forests and forested wetlands. They nest over or close to standing water in woodpecker holes or natural cavities in live and dead trees (Petit 2020).

Red-headed woodpecker can be found in a variety of habitats such as deciduous forests, river bottoms, groves of dead trees, parks, agricultural fields, grasslands with scattered trees and along roads. For nesting, they prefer more disturbed woodlands with large diameter snags and

dead limbs. They excavate cavities into snags or may use natural cavities for nesting (Frei et al. 2020).

Rusty blackbird breeds in Alaska, Canada, and the northeastern U.S. In their wintering range they will use flooded woods, edges of ponds and streams, and adjacent fields (Avery 2020).


Wood thrush prefers deciduous and mixed forests with a variety of deciduous tree species, moderate shrub density, shade, and an open forest floor with decaying leaf litter and moist soil. They place their nests on shaded and concealed areas in trees or shrubs approximately 10 feet off the ground (Evans et al. 2020).

This page intentionally left blank

Attachment 5 - U.S. Fish & Wildlife Service Correspondence

This page intentionally left blank

Environmental Assessment and Finding of No Significant Impact

	Tennessee Ecological Services Field Office
	FWS Log No: 2024-0029656
<p>The Service concurs with your effect determination(s) for resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). This finding fulfills the requirements of the Act. If project design changes are made or new information becomes available, please submit new plans for review.</p>	
DANIEL ELBERT	Digitally signed by DANIEL ELBERT Date: 2024.08.09 14:43:47 -05'00'
Field Supervisor	Date

Environmental Assessment and Finding of No Significant Impact



400 West Summit Hill Drive, Knoxville, Tennessee 37902

July 12, 2024

Mr. Daniel Elbert
U.S. Fish and Wildlife Service
Tennessee Field Office
446 Neal Street
Cookeville, Tennessee 38501

Dear Mr. Elbert:

TENNESSEE VALLEY AUTHORITY (TVA) – BEAN BOWL PROJECT– REQUEST FOR CONCURRENCE – PROJECT CODE: 2024-0029656

The Tennessee Valley Authority (TVA) is proposing to issue a 26a permit to Scott Williamson to approve shoreline development actions by Bean Bowl LLC. The Bean Bowl LLC proposes to develop a commercial marina and mixed-use riverfront residential complex including upwards of 700 total residences and approximately 78,500 sq. ft. of commercial space on an approximate 71-acre parcel in Hamilton County, Tennessee that is situated on privately owned land. TVA does not own the land, nor do they have a flowage easement on this property. However, due to the construction of permanent structures in navigable waters, the Proposed Action triggers approval by TVA and The U.S. Army Corps of Engineers. The proposed Bean Bowl Mixed-Use Development includes approximately 2,700 feet of frontage along the Tennessee River and South Chickamauga Creek. The development will provide residences, community green spaces, a restaurant, a clubhouse, a pool, a commercial marina with floating docks, and pedestrian river access. TVA's jurisdiction is restricted to the limits of the 500-year floodplain within the property.

For thorough environmental assessment, TVA will evaluate approximately 28 acres which consists of approximately 5.6 acres of aquatic habitat and 22.4 acres of terrestrial habitat. The terrestrial habitat encompasses approximately 13.1 acres of deciduous forest along the shoreline and primarily concentrated in the northern area of the floodplain, approximately 7.7 acres of early successional field in previously disturbed areas, and a 0.8-acre water retention basin on the southwestern portion of the property. Dirt access roads and a small area of crushed rock pile make up the remaining acreage. Site preparation for the proposed project will include vegetation removal, balancing cut-and-fill materials, grading across the site, and the placement of onsite fill materials. The entire Project Area under TVA's federal control and responsibility is expected to be affected by the proposed development.

A review of the TVA Regional Natural Heritage database and the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) website identified species listed as delisted, experimental, federally endangered, threatened, candidate, or proposed for listing under the Endangered Species Act (ESA), that have the potential to occur within the Project Area in Hamilton County, Tennessee. Species include six clams (dromedary pearl mussel, orangefoot

Environmental Assessment and Finding of No Significant Impact

pimpleback, pink mucket, rough pigtoe, Tennessee clubshell, and Tennessee pigtoe), three flowering plants (large-flowered skullcap, small whorled pogonia, and Virginia spiraea), two birds (bald eagle and whooping crane), four mammals (gray bat, Indiana bat, northern long-eared bat (NLEB), and tricolored bat), and one insect (monarch butterfly). No federally designated critical habitats for these species are present within or adjacent to the Project Area; therefore, no adverse modification of critical habitats would occur. See attached Species List.

Field surveys conducted by S&ME in May 2018 identified two wetlands totaling approximately 0.09 acre in the northeastern portion of the property. An ephemeral stream/wet-weather conveyance (WWC) was also identified that is approximately 358 feet long. Additional non-jurisdictional upland drainages were observed associated with some of the existing structures. Beyond the subject property boundaries to the north and northwest are the Tennessee River and a short segment of South Chickamauga Creek. Four open water features (OW 1 through OW4) were identified in the southwestern portion of the property. Subsequent U.S. Army Corp of Engineers (USACE) and Tennessee Department of Environment and Conservation (TDEC) site visits determined that no streams, wetlands, or jurisdictional ponds were present onsite. In a letter dated September 19, 2019, and updated on September 30, 2019, TDEC concurrence stated that the assessed watercourses are wet weather conveyances (WWC) and alternations shall require no notice or approval provided alternations are in accordance with the requirements of Tenn. Code Ann. § 69-3-108(q). Further, USACE goes on to state that OW1 through OW4 were determined to be man-made structures, for the purpose of settling/detention ponds related to the historical industrial facility and are therefore not considered a WoUS (see Appendix 2). Consequently, these features were removed from further regulatory correspondence.

Records of federally listed aquatic species are from the Tennessee River and are considered historic. Erosion control Best Management Practices (BMPs) would also be installed to minimize the potential for off-site sediment impacts to the Tennessee River. Furthermore, aquatic habitat immediately adjacent to the proposed development is considered marginal and does not contain habitat for federally listed mussels. Therefore, no federally listed or proposed aquatic species would be impacted by the proposed actions. ***TVA has made a no effect determination for dromedary pearl mussel, orangefoot pimpleback, pink mucket, rough pigtoe, Tennessee clubshell, and Tennessee pigtoe.***

The Project Area has been heavily degraded by extensive earth moving associated with previous construction activities. Desktop surveys determined that this area possesses no conservation value for rare plants and has no potential to support state or federally listed plants. ***TVA has made a no effect determination for large-flowered skullcap, small whorled pogonia, and Virginia spiraea.***

Six bald eagle nests are known from Hamilton County. The closest documented nest is located approximately 6.7 miles from the project area. No bald eagles or new nests were observed during field surveys of the Project Area. Actions are in compliance with the National Bald Eagle Management Guidelines. ***TVA has determined that the proposed actions would not affect bald eagle.***

While there are no Section 7 requirements for whooping crane as an experimental, non-essential population, it is identified in IPaC as a species that could occur within the Project Area. The wooded wetlands within the TVA action area do not provide suitable habitat for whooping cranes. Due to the lack of habitat availability and low probability of presence for this species,

TVA has determined that the proposed actions would not jeopardize the continued existence of whooping crane.

Five gray bat mist-net capture records are known from Hamilton County, Tennessee, the nearest individual was captured in 2011 approximately 9.82 miles from the Project Area. USFWS's IPaC has identified that this species may occur within the Project Area.

Two NLEB records have been recorded in Hamilton County, Tennessee, the nearest of which was documented approximately 5.85 miles from the Project Area at Lookout Mountain Battlefield Pit during 2011 hibernacula surveys. USFWS's IPaC has identified that this species may occur within the Project Area.

One record of Indiana bat is known approximately 9.75 miles from the Project Area; this record is from a 2016 winter cave survey in Dade County, Georgia. Additionally, one record of Indiana bat is known from Hamilton County, Tennessee; this record is from an Indiana bat roost tree used during a 2012 migration tracking study approximately 17.95 miles from the Project Area. The Project Area falls within the Indiana bat range as defined by USFWS's Environmental Conservation Online System (ECOS) current range map.

One record of tricolored bat (TCB) is known from Hamilton County, Tennessee; this individual was captured in a 2016 mist-net approximately 11.95 miles from the Project Area. Additionally, the Project Area falls within the tricolored bat range as defined by USFWS's current range shapefile.

One cave, Beaver Cave, is known approximately 2.7 miles from the Project Area. No bat records are known from this cave. No caves or other suitable winter roosting structures for gray bat, Indiana bat, NLEB, or tricolored bat were observed in the Project Area during field surveys by TVA Terrestrial Zoologists. Phase 1 bat habitat assessments for Indiana bat and NLEB were conducted in the Project Area in July 2021 using the USFWS's 2021 Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines and again in 2023 using the USFWS's 2023 survey guidelines. Approximately 12.4 of the 13.1 acres of deciduous forest proposed for removal in the Project Area were identified as potentially suitable summer roosting habitat for Indiana bat, NLEB, and tricolored bat. The quality of summer roosting bat habitat was based on the presence of potential bat roost trees, solar exposure of those roost trees, stand density, and maturity of the woodland, as well as proximity to aquatic foraging habitat. Foraging habitat is available for all four bat species over the Tennessee River, over a water retention basin, and over and around trees, forest corridors, and forest edges within the Project Area. BMPs would be used during construction activities to minimize indirect impacts to water quality in the Tennessee River.

Phase 2 Presence/Absence mist-net surveys were conducted by BDY Environmental LLC (now Davey Resources Group) in July 2021 over the larger Project Area. These surveys followed the 2021 USFWS Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines. At the time, the level of effort used to evaluate bat presence during these surveys met the level of effort required to determine the presence of Indiana bat and NLEB. Two non-reproductive adult gray bats were captured during those surveys. Due to the lack of impacts to gray bat roosting habitat and minimal impacts to available foraging habitat, ***TVA has determined that the Proposed Actions may affect, but are not likely to adversely affect (NLAA) gray bat.*** No Indiana bats or NLEB were captured during these surveys suggesting they are not likely to be found in the project area. Due to the lack of impacts to winter roosting habitat and lack of documented presence at the site during summer surveys, ***TVA has determined that the***

Environmental Assessment and Finding of No Significant Impact

Proposed Actions may affect, but are not likely to adversely affect (NLAA) Indiana bat and northern long-eared bat.

Due to the relatively small amount of habitat removal, ***TVA has determined that the Proposed Actions would not jeopardize the continued existence of tricolored bat*** as it is currently listed as a Proposed Endangered species. In anticipation of the expected listing of the tricolored bat as Endangered under the ESA, TVA has also evaluated the potential to impact the species at the individual level. No TCB were captured during the Phase 2 Presence/Absence mist-net surveys conducted by BDY Environmental LLC indicating this species is not likely to occur in the project action area. Due to the negative survey results, relatively small amount of habitat to be removed, and Bean Bowl LLC's commitment to conduct tree removal outside of the pup season (May 15 – July 31), ***TVA has determined that the Proposed Actions may affect but are not likely to adversely affect the tricolored bat*** upon its formal listing as Endangered.

While there are no Section 7 requirements for monarch butterfly as a candidate species, it is identified in IPaC as a species that could occur within the Project Site. The heavily impacted early successional field within the Project Area consists of several wildflower and other flowering plant species that provide suitable foraging habitat for adult monarchs. Abundant milkweed plants were not observed during a field survey by a TVA Terrestrial Zoologist. Due to the lack of abundant host plants in the Project Area and the relatively small size of the remaining disturbed habitat, ***TVA has determined that the Proposed Actions would not jeopardize the continued existence of the monarch butterfly.***

We respectfully request concurrence with our determinations. Should you have any questions or wish to discuss the project in more detail, please contact Elizabeth Hamrick at ecburton@tva.gov.

Sincerely,



W. Douglas White
Senior Manager, Biological Compliance

SMJ:SLR
Enclosures

Environmental Assessment and Finding of No Significant Impact

Federally Listed Species in Hamilton County, Tennessee¹

Common Name	Scientific Name	Federal Status ²
CLAMS		
Dromedary Pearlymussel	<i>Dromus dromas</i>	E
Orangefoot Pimpleback	<i>Plethobasus cooperianus</i>	E
Pink Mucket	<i>Lampsilis abrupta</i>	E
Rough Pigtoe	<i>Pleurobema plenum</i>	E
Tennessee Clubshell	<i>Pleurobema oviforme</i>	PE
Tennessee Pigtoe	<i>Pleurobema barnesiana</i>	PE
FLOWERING PLANTS		
Large-flowered Skullcap	<i>Scutellaria montana</i>	T
Small Whorled Pogonia	<i>Isotria medeoloides</i>	T
Virginia Spiraea	<i>Spiraea virginiana</i>	T
BIRDS		
Bald eagle ³	<i>Haliaeetus leucocephalus</i>	DL
Whooping crane	<i>Grus americana</i>	EXPN
MAMMALS		
Gray bat	<i>Myotis grisescens</i>	E
Indiana bat ³	<i>Myotis sodalis</i>	E
Northern long-eared bat	<i>Myotis septentrionalis</i>	E
Tricolored bat	<i>Perimyotis subflavus</i>	PE
INSECTS		
Monarch butterfly	<i>Danaus plexippus</i>	C
¹ Source: TVA Regional Natural Heritage Database and USFWS Ecological Conservation Online System (https://ecos.fws.gov/ipac/) extracted 06/19/2024. ² Status Codes: C = Candidate Species; DL = Delisted; E = Endangered; EXPN = Experimental Population, Non-Essential; PE = Proposed Endangered; T = Threatened. ³ Species not documented in the IPaC official species list; however, it has been documented within Hamilton County, Tennessee according to the TVA Regional Natural Heritage Database.		