

**Document Type:** EA-Administrative Record  
**Index Field:** Environmental Assessment  
**Project Name:** South Holston Dam  
Reservation Habitat  
Enhancement Project  
**Project Number:** 2015-9

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**SOUTH HOLSTON DAM RESERVATION HABITAT  
ENHANCEMENT PROJECT  
ENVIRONMENTAL ASSESSMENT  
Sullivan County, Tennessee**

**Prepared by:**  
TENNESSEE VALLEY AUTHORITY  
Knoxville, Tennessee

March 2016

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### **Purpose and Need for Action**

The Tennessee Valley Authority (TVA) is proposing to establish various habitat enhancements areas on its South Holston Dam Reservation (Reservation) in Sullivan County, Tennessee. This Reservation is approximately 373 acres. TVA would establish habitat for state-listed salamanders, a wildlife food plot and five monarch butterfly habitat areas (Attachment A). The proposal is intended to improve wildlife habitats and increase wildlife-oriented recreational opportunities on TVA-managed lands. The proposal supports and is consistent with TVA's mission of environmental stewardship, the objectives for biological resource management in the 2011 Natural Resources Plan (NRP), and TVA's management goals set forth in the 2010 Northeastern Tributary Reservoirs Land Management Plan (RLMP).

TVA is proposing to establish habitat for state-listed salamanders, specifically the four toed salamander. The salamander habitat project was requested by Dr. Kevin Hamed at the Virginia Highlands Community College who has been conducting amphibian research on this TVA property for approximately 15 years. The proposed wildlife food plot is part of the NRP's grassland and agricultural lands management initiative, which has an emphasis on enhancing biological diversity.

The population of monarch butterflies has greatly diminished over the past several years due to habitat loss, pesticide use, and changes in agricultural practices. There is a global concern over the reduction in pollinator species including butterflies. A 2014 Presidential Memorandum mandates the creation of a federal strategy to promote the health of pollinators. This includes an assessment of monarch populations and restoration and reclamation of monarch habitat. There is an initiative involving various federal land management agencies such as the U.S. Fish and Wildlife Service (USFWS) and private conservation organizations to boost awareness of the decline of the monarch and also to provide suitable habitat. TVA has also recognized this need and is trying to enhance monarch habitat on TVA lands. TVA is in a unique position to be able to support such long-term habitat enhancement projects due to its custody and management of retained lands. The South Holston Dam Reservation provides an ideal location to establish monarch habitat and also to provide an educational opportunity through informational signs along large, publically accessible monarch habitat plots in heavily visited areas of the Reservation. This is the first TVA project to focus on the establishment of pollinator habitat. If successful, the project may become a blueprint for future TVA projects created to support establishment of pollinator habitat combined with educational outreach opportunities.

### **Proposed Action**

The proposed habitat enhancements are located at various locations along Holston View Dam Road (see Attachment A). The proposed wildlife food plot would be approximately 1 acre in size and be located under existing Bristol Tennessee Essential Services (BTES) transmission lines near TVA's maintenance facility. The majority of the project area consists of fescue and is currently maintained by annual mowing. A non-selective herbicide would be used to eradicate the existing vegetation and then the area would be lightly disked and seeded with both annual and perennial plants such as perennial rye, white clover, red clover, and orchard grass. TVA staff has received concurrence from BTES for the installation of the proposed wildlife food plot. See Attachment B for site photographs.

TVA proposes to establish small vernal pools (20 or less) to provide suitable habitat for state-listed salamanders, specifically the four toed salamander. The pools would be constructed adjacent to existing salamander habitat. These pools would be approximately 6-feet-long by 6-feet-wide and 6 to 8 inches deep. The pools would be constructed using a hand shovel. A plastic liner specifically designed for wetland construction would be installed. These areas would serve as breeding sites for the salamanders and other amphibians. TVA would purchase the required liners and the Community College would install them with oversight from TVA staff. Before implementing the project, TVA would complete an internal TVA excavation permit for the proposed salamander habitat areas. See Attachment B for site photographs.

TVA is also proposing to establish 5 areas of habitat suitable for the monarch butterfly. Five 10-foot by 30-foot plots throughout the Reservation would be planted with vegetation known to support the multiple life stages of the monarch. The areas currently consist of mowed grasses, mainly fescue (Attachment B). The vegetation would be removed using a non-selective herbicide. The area would then be lightly disked and seeded with native, desirable plant life. The vegetation in the plots would consist of a high concentration of milkweed, the host plant for the monarchs. Other native flowering plants such as asters, coneflowers, and bee balm would also be incorporated into the plots. This vegetation would also attract other species of butterflies as well as pollinators such as honeybees, which are also in decline.

TVA is also considering taking no action (i.e., not establishing various habitat enhancement areas). Taking no action would not assist in the enhancement of biologically diverse habitat for sensitive species nor would it help TVA achieve its goals and objectives for managing the biological resources within the Reservation.

### **Environmental Impacts**

TVA has reviewed the proposed project and documented potential environmental impacts related to the project in the attached categorical exclusion checklist (Checklist, Attachment C). The Checklist identifies the resources present in the project area and documents TVA's determination that the proposal would not significantly affect these resources. As documented in the Checklist, the proposal would have no effect to endangered, threatened, or special status plant or aquatic species; prime farmland; streams; or wild and scenic rivers.

TVA conducted a review of its Natural Heritage Database and found that four state-listed species (four-toed salamander, common barn-owl, southern bog lemming, southeastern shrew), one species tracked by the State of Tennessee (a land snail), and one federally listed species (northern long-eared bat) within three-miles of the project area. One additional federally listed species (gray bat) has been reported from Sullivan County, Tennessee. In addition, the USFWS has determined that the federally endangered Indiana bat has the potential to exist state-wide in Tennessee. Four caves are known within three miles of the project footprint, the closest of which is approximately 1.4 miles away. No caves would be impacted by the proposed action.

No habitat for the land snail is found within the project area; therefore these species would not be impacted by the proposed action. Habitat for the Southern bog lemmings and southeastern shrews occurs within the project area. However, the proposed actions are small and isolated and would not impact these species.

Common barn owls are found in Sullivan County year-round. The nearest barn owl record occurs approximately 2.2 miles from the project area. Suitable nesting habitat for this species does not exist within the project footprint. Foraging habitat for this species exists over early successional habitat in the project footprint. Vegetative species composition would change within these areas of foraging habitat; however, these actions would not impact common barn owl. Common barn owl is not expected to be impacted by the proposed actions. Proposed actions would create additional habitat for four-toed salamanders. Proposed actions are expected to benefit populations of four-toed salamanders by increasing breeding habitat.

The proposed creation of a small number of additional vernal pools would have no measurable effect on foraging bats. Roosting habitat for gray bats does not exist within the project footprint. The closest known record of the Indiana bat is approximately 50 miles away and the closest northern long-eared bat is approximately three miles away from the project area. No trees would be removed during the habitat enhancements. No additional tree roosting habitat or man-made roosting structures for these species would be impacted by the proposed actions. Overall, the gray bat, Indiana bat and northern long-eared bat would not be impacted by the proposed actions.

A review of the National Register of Historic Places indicated that no historic properties exist within the project area or within its viewshed. TVA also conducted a pedestrian survey with shovel testing and found no cultural components. Given the survey results and absence of historic properties on the National Register of Historic Places, TVA determined that the proposed action would have no effect to historic properties.

A review of the National Wetland Inventory database and site photographs indicates that wetlands are absent from the project area and the proposed salamander habitat improvement area is located adjacent to a freshwater emergent wetland (Attachment D). The proposed action would not directly impact this wetland; however, there would have an overall beneficial effect on the wetland due to the removal of adjacent invasive exotic species and the improvement of amphibian/wildlife habitat. A review of the TVA Natural Heritage Database indicated that one heritage area (South Holston Dam Reservation) and four natural areas (Cherokee National Forest Ownership Boundaries, North Cherokee Nation Forest & Wildlife Management Area, South Holston Dam-Osceola Island, and South Holston Reservoir Reservation) are recorded within one mile of the project area. The project area is located on the South Holston Dam Reservation and the proposed projects would be beneficial for the Reservation as it would increase and enhance wildlife habitat.

The proposed actions are not located within the 100-year floodplain; therefore, there would be no impacts to the floodplain. No impacts to water flow, stream banks or channels are expected. The application of only approved herbicide would be in accordance with labeling instructions, which include triple rinse, puncture, and disposal. The spraying of chemicals can result in chemical particulates becoming airborne during the application process. Spraying will be conducted with the acceptable weather parameters and within the specified concentration limits to reduce any potential air quality impacts.

The proposal is limited in scope and designed to improve habitat within the Reservation. Cumulatively, these habitat enhancement projects would change the character of small portions of the Reservation but would have beneficial overall impacts due to the increase in wetland habitat, increase in wildlife habitat and establishment of native vegetation. The

cumulative impacts associated with these stabilization projects have also been described in the environmental review of the NRP and RLMP.

**TVA Preparers**

Randy Short – Land Use and Watershed Specialist  
Kemmy Garrett – Heritage Review and Watershed Specialist  
Edward Wells, III – Archaeologist  
Loretta McNamee – Contract NEPA Specialist

**Attachments**

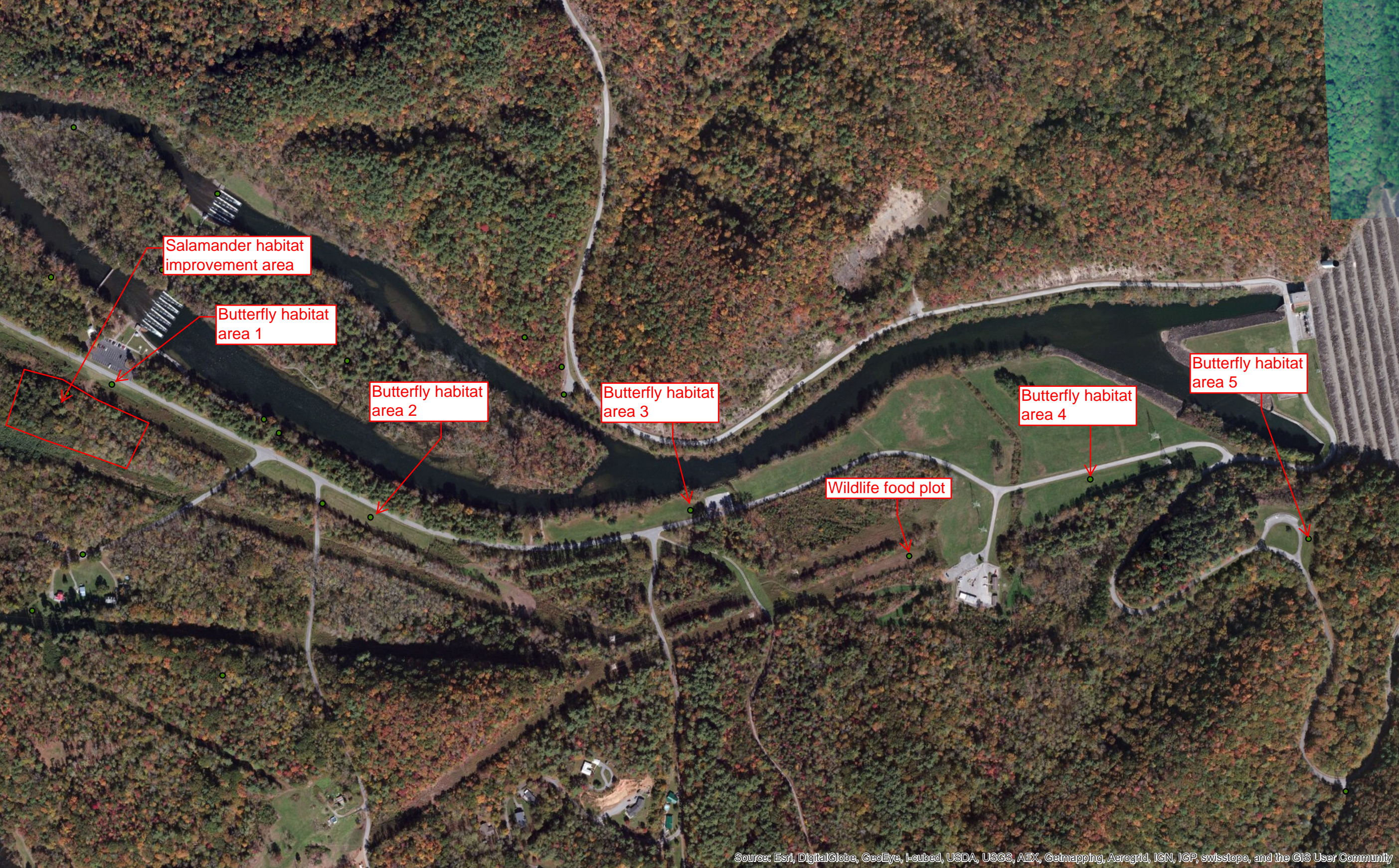
Attachment A – Project Location Maps

Attachment B – Project Site Photographs

Attachment C – Categorical Exclusion Checklist 33692

Attachment D – National Wetland Inventory Map





Salamander habitat improvement area

Butterfly habitat area 1

Butterfly habitat area 2

Butterfly habitat area 3

Wildlife food plot

Butterfly habitat area 4

Butterfly habitat area 5



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## Attachment B – Site photographs

### Food Plot Area





## Attachment B – Site photographs

### Monarch Habitat Area





## Attachment B – Site photographs

### Salamander Improvement Area





## Attachment B – Site photographs

Salamander Improvement Area





## Attachment B – Site photographs

Salamander Improvement Area



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## Categorical Exclusion Checklist for Proposed TVA Actions

Categorical Exclusion Number Claimed	Organization ID Number RLR274408	Tracking Number <i>(NEPA Administration Use Only)</i> 33692
Form Preparer Randy Short	Project Initiator/Manager Randy Short	Business Unit P&NR - Reservoir Property & Resource Mgmt
Project Title South Holston Dam Reservation Projects		Hydrologic Unit Code
Description of Proposed Action <i>(Include Anticipated Dates of Implementation)</i> See attached project scope.		<input type="checkbox"/> Continued on Page 3 <i>(if more than one line)</i>
Initiating TVA Facility or Office		TVA Business Units Involved in Project
Location <i>(City, County, State)</i> Sullivan, TN, Project areas are located on South Holston Dam Reservation.		

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			Short, Randy 01/21/2016
2.Is part of a larger project proposal involving other TVA actions or other federal agencies?	X			Short, Randy 01/21/2016
* 3.Involves non-routine mitigation to avoid adverse impacts ?	X		No	Short, Randy 01/21/2016
4.Is opposed by another federal, state, or local government agency?	X			Short, Randy 01/21/2016
* 5.Has environmental effects which are controversial?	X			Short, Randy 01/21/2016
* 6.Is one of many actions that will affect the same resources?	X			Short, Randy 01/21/2016
7.Involves more than minor amount of land?	X			Short, Randy 01/21/2016

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

## 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	No	For comments see attachments
2.Potentially affect historic structures, historic sites, Native American religious or cultural properties, or archaeological sites?		X	No	No	For comments see attachments
3.Potentially take prime or unique farmland out of production?	X		No	No	Short, Randy 01/21/2016
4.Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Short, Randy 01/21/2016
5.Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Short, Randy 01/21/2016
6.Potentially affect wetlands?		X	No	No	For comments see attachments
7.Potentially affect water flow, stream banks or stream channels?	X		No	No	For comments see attachments
8.Potentially affect the 100-year floodplain?	X		No	No	Short, Randy 01/21/2016
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	For comments see attachments
12.Involve water withdrawal of a magnitude that may affect aquatic life or involve interbasin transfer of water?	X		No	No	Short, Randy 01/21/2016
13.Potentially affect surface water?	X		No	No	For comments see attachments
14.Potentially affect drinking water supply?	X		No	No	Short, Randy 01/21/2016
15.Potentially affect groundwater?	X		No	No	Short, Randy 01/21/2016
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	For comments see attachments
3.Generate wastewater streams?	X		No	No	Short, Randy 01/21/2016
4.Cause soil erosion?	X		No	No	Short, Randy 01/21/2016
5.Discharge dredged or fill materials?	X		No	No	Short, Randy 01/21/2016
6.Generate large amounts of solid waste or waste not ordinarily generated?	X		No	No	For comments see attachments
7.Generate or release hazardous waste (RCRA)?	X		No	No	Short, Randy 01/21/2016
8.Generate or release universal or special waste, or used oil?	X		No	No	Short, Randy 01/21/2016
9.Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Short, Randy 01/21/2016
10.Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?	X		No	No	Short, Randy 01/21/2016
11.Involve disturbance of pre-existing contamination?	X		No	No	Short, Randy 01/21/2016
12.Generate noise levels with off-site impacts?	X		No	No	Short, Randy 01/21/2016
13.Generate odor with off-site impacts?	X		No	No	Short, Randy 01/21/2016
14.Produce light which causes disturbance?	X		No	No	Short, Randy 01/21/2016
15.Release of radioactive materials?	X		No	No	Short, Randy 01/21/2016
16.Involve underground or above-ground storage tanks or bulk storage?	X		No	No	Short, Randy 01/21/2016
17.Involve materials that require special handling?	X		No	No	For comments see attachments

#### Part 4. Social and Economic Effects

Would the proposed action...	No	Yes	Permit	Commitment	Information Source for Insignificance
1.Potentially cause public health effects?	X			No	Short, Randy 01/21/2016
2.Increase the potential for accidents affecting the public?	X			No	Short, Randy 01/21/2016
3.Cause the displacement or relocation of businesses, residences, cemeteries, or farms?	X			No	Short, Randy 01/21/2016
4.Contrast with existing land use, or potentially affect resources described as unique or significant in a federal, state, or local plan?	X			No	Short, Randy 01/21/2016
5.Disproportionately affect minority or low-income populations?	X			No	Short, Randy 01/21/2016
6.Involve genetically engineered organisms or materials?	X			No	Short, Randy 01/21/2016
7.Produce visual contrast or visual discord?	X			No	Short, Randy 01/21/2016
8.Potentially interfere with recreational or educational uses?	X			No	Short, Randy 01/21/2016
9.Potentially interfere with river or other navigation?	X		No	No	Short, Randy 01/21/2016
10.Potentially generate highway or railroad traffic problems?	X			No	Short, Randy 01/21/2016

#### Part 5. Other Environmental Compliance/Reporting Issues

Would the proposed action...	No	Yes	Commitment	Information Source for Insignificance
1.Release or otherwise use substances on the Toxic Release Inventory list?	X		No	Short, Randy 01/21/2016
2.Involve a structure taller than 200 feet above ground level?	X		No	Short, Randy 01/21/2016
3.Involve site-specific chemical traffic control?	X		No	Short, Randy 01/21/2016
4.Require a site-specific emergency notification process?	X		No	Short, Randy 01/21/2016
5.Cause a modification to an existing environmental permit or to existing equipment with an environmental permit or involve the installation of new equipment/systems that will require a permit?	X		No	Short, Randy 01/21/2016
6.Potentially impact operation of the river system or require special water elevations or flow conditions??	X		No	Short, Randy 01/21/2016
7.Involve construction of a new building or renovation of existing building (i.e., major changes to lighting, HVAC, and/or structural elements of building of 2000 sq. ft or more) on which TVA will pay/pays the utilities??	X		No	Short, Randy 01/21/2016

Parts 1 through 4: If "yes" is checked, describe in the discussion section following this form why the effect is insignificant. Attach any conditions or commitments which will ensure insignificant impacts. Use of non-routine commitments to avoid significance is an indication that consultation with NEPA Administration is needed.

An ☒ EA or ☐ EIS Will be prepared.

Based upon my review of environmental impacts, the discussion attached, and/or consultations with NEPA Administration, I have determined that the above action does not have a significant impact on the quality of the human environment and that no extraordinary circumstances exist. Therefore, this proposal qualifies for a categorical exclusion under Section 5.2. \_\_\_\_\_ of TVA NEPA Procedures.

Project Initiator/Manager Randy Short	Date 04/05/2016
TVA Organization UNKN	E-mail rashort@tva.gov
	Telephone

#### Environmental Concurrence Reviewer

Erica Fritz Wadl 04/05/2016  
\_\_\_\_\_  
Signature

#### Preparer Closure

Randy Short 04/05/16  
\_\_\_\_\_  
Signature

#### Other Environmental Concurrence Signatures (as required by your organization)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature



Signature

Signature

**Other Review Signatures** (as required by your organization)

Garry E Chappelle 04/05/2016

Signature

Signature

Signature

Signature

Signature

Signature

**Attachments/References**

CEC General Comment Listing

1. Project Scope  
By: Randy Short 02/25/2016  
Files: Project scope.docx 02/25/2016 13.65 Bytes
2. Kim Pilarski-Hall concurred with this CEC via email while ENTRAC was having technical difficulties.  
By: Sabrina M Trimmier 02/16/2016  
Files: CEC 33692, RLR # 253591,274394,274408 KPH.pdf 02/16/2016 13.48 Bytes
3. Bristol Tennessee Electric Services concurrence e-mail.  
By: Randy Short 02/22/2016  
Files: BTES concurrence e mail.pdf 02/22/2016 15.12 Bytes
4. Dam Safety comments stating no impacts  
By: Randy Short 02/25/2016  
Files: RE\_ Project on South Holston Dam Reservation.pdf 02/25/2016 58.31 Bytes
5. NO COMMENT TEXT  
By: 26a Added Comment
6. NO COMMENT TEXT  
By: 26a Added Comment
7. NO COMMENT TEXT  
By: 26a Added Comment
8. NO COMMENT TEXT  
By: 26a Added Comment
9. NO COMMENT TEXT  
By: 26a Added Comment
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19. By: 26a Added Comment  
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20. By: 26a Added Comment  
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21. By: 26a Added Comment  
NO COMMENT TEXT
- By: 26a Added Comment

#### CEC Comment Listing

#### Part 2 Comments

1. Scope: Enhancement of habitat areas for: Salamanders, butterflies, and food plots for wildlife. Completed project should enhance habitat communities and have positive impacts. A review of the TVA Natural Heritage Database on 11-9-2015 for potential impacts to state and federally listed species resulted in these findings. There are ten state listed (five extirpated, four historical, and one extant) and four extirpated federally listed aquatic species within a ten-mile radius of the proposed action. Three extirpated federally listed and five state listed aquatic species are recorded within one mile from the project location. Eleven state listed (five extant, two historical, one extirpated, two D-Poor, and one C-Fair) and no federally listed plant species occur within a five-mile but outside a one mile radius of the proposed action. No champion trees occur within a five-mile radius of the proposed action. Three extant state listed and no federally listed terrestrial species are within a three-mile and one mile radius of the project location. There are no caves within a three-mile radius of the proposed action. "Myotis sodalis (Indiana bat) is listed as a federally endangered species for this area. Myotis sodalis hibernates in caves; this species migrates from caves to roost during the summer behind loose bark of dead or dying trees or in tree cavities. This includes both individual bats and maternity colonies. No trees would be removed as a result of the proposed project. No occurrences of Indiana or Northern Long-eared bats are recorded within a ten mile radius. Therefore, TVA has determined that there would be no effects to this species." There will be no impacts to sensitive species due to suitable habitat for the species being absent on or immediately adjacent to the project location.  
By: Kemmy J Garrett 11/09/2015  
Files: Heritage.pdf 11/09/2015 87.60 Bytes
1. See attached TZ input  
By: Elizabeth B Hamrick 02/28/2016  
Files: CEC33692\_TZ\_Part2Que1\_Input.docx 02/28/2016 30.70 Bytes
2. TVA has conducted a field review for the proposed actions. TVA also reviewed the National Register of Historic Places and found that no historic properties exist within the project area or within its viewshed. Based on these reviews, TVA has determined that there would be no effect on historic properties. Please see the attachment for more details.  
By: Edward W Wells, III 03/08/2016  
Files: CEC33692\_IDC65350\_Section106.pdf 12/23/2015 1,838.93 Bytes
9. A review of the TVA Natural Heritage database indicates three managed, one heritage, and six natural areas within a five-mile radius of the proposed actions. One managed area, South Holston Dam Reservation, one heritage area, South Holston Dam-Osceola Island, and four natural areas, Cherokee National Forest Ownership Boundaries, North Cherokee NF & Wildlife Management Area, South Holston Dam-Osceola Island, and South Holston Reservoir Reservation are recorded within one mile from the project location. This project is located on South Holston Dam Reservation and is part of PRM scope of work. Due to the absence of other managed, heritage, or natural areas on or immediately adjacent to the proposed action, no visual or ecological impacts are expected to occur.  
By: Kemmy J Garrett 11/09/2015
10. Due to the nature and location of the action, there is minimal to no potential for the spread of invasive and/or exotic species along the shoreline or in the reservoir.  
By: Kemmy J Garrett 11/09/2015
10. Based on review of the actions and site location information, the proposed project would not contribute to the spread of exotic or invasive terrestrial animal species.  
By: Elizabeth B Hamrick 02/28/2016
11. A review of the TVA Natural Heritage database indicates no migratory or wading bird colonies within a three-mile radius of the proposed action. Due to the absence of colonies on or immediately adjacent to the project location, no impacts are expected to occur.  
By: Kemmy J Garrett 11/09/2015
11. There are no recorded heronries within 3.0 miles of the project area. No other aggregations of birds are known from the area. Activities associated with the proposed project would not impact wading bird colonies or other aggregations of migratory birds.  
By: Elizabeth B Hamrick 02/28/2016
13. Herbicides must be applied following label instructions. Applications should not be made during periods of potential heavy precipitation (run-off).  
By: Randy Short 02/08/2016
16. A review of the TVA Natural Heritage database found that no impacts are expected to terrestrial habitats due to their absence on or immediately adjacent to the project location.  
By: Kemmy J Garrett 11/09/2015

16. There are four recorded cave within three miles of the project area. The closest of these is approximately 1.4 miles away and would not be impacted by the proposed actions. Several vernal pools exist within the proposed action area. These pools are known breeding areas for the state-listed four-toed salamander as well as spotted salamanders and marbled salamanders. The proposed project would create additional habitat for these species thus improving important terrestrial habitats.  
By: Elizabeth B Hamrick 02/28/2016
17. A review of the TVA Natural Heritage database found that no impacts are expected to aquatic habitats due to their absence on or immediately adjacent to the project location.  
By: Kemmy J Garrett 11/09/2015
6. Proposed salamander habitat improvement project will have an overall beneficial effect on wetlands due to the removal of invasive exotic species and the improvement of amphibian/wildlife habitat.  
By: Kim Pilarski-Hall 02/16/2016
6. A review of the National Wetland Inventory database, along with photos and information provided by the project lead, indicates that wetlands are absent on or immediately adjacent to the project area. Due to the absence of wetland areas and the location of the proposed actions, there will be no impacts to wetlands.  
By: Kemmy J Garrett 11/09/2015  
Files: wetlandsNov92015135728GMT-0500.pdf 11/09/2015 894.61 Bytes
7. After a review of the topo map, proposed project scope, and photos provided by the project lead no impacts are expected which may affect water flow, stream banks or channels.  
By: Kemmy J Garrett 11/09/2015

#### Part 3 Comments

1. Spraying chemicals with a hand wand can result in chemical particulates becoming airborne during the application process. Spraying must be conducted with the acceptable weather parameters as defined by label requirements and within the specified concentration limits  
By: Randy Short 02/08/2016
2. Only approved chemicals will be applied. In addition, the herbicides will be applied following label instructions.  
By: Randy Short 02/08/2016
6. Disposal of herbicide containers will be in accordance with labeling instructions. This would include triple rinse, puncture, and disposal. Herbicide containers will not be reused.  
By: Randy Short 02/08/2016
17. Herbicides must be handled and utilized in accordance with label requirements. All containers (sprayers, tanks, etc.) must be labeled to indicate contents and in accordance with Federal Insecticide Fungicide and Rodenticide Act (FIFRA) requirements. Empty containers should not be reused. Holes should be punched into any pesticide containers before disposal to prevent reuse.  
By: Randy Short 02/08/2016

#### CEC Permit Listing

#### CEC Commitment Listing





U.S. Fish and Wildlife Service

# National Wetlands Inventory

RLR 274408

Nov 9, 2015



## Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

## Riparian

- Herbaceous
- Forested/Shrub

## Riparian Status

- Digital Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

## User Remarks:

No Wetlands in project area.

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