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Index Field: Environmental Document
Project Name: Jolly's Rock Bank Stabilization
Project Number: 2017-19

**JOLLY'S ROCK BANK STABLIZATION
ENVIRONMENTAL ASSESSMENT AND
FINDING OF NO SIGNIFICANT IMPACT**
Tims Ford Reservoir
Franklin County, Tennessee

Prepared by:
TENNESSEE VALLEY AUTHORITY
Knoxville

July 2017

To request further information, contact:
Matthew Higdon
NEPA Compliance
Tennessee Valley Authority
400. W Summit Hill Drive
Knoxville, TN 37902
Phone: 865-632-8051
E-mail: mshigdon@tva.gov

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Purpose and Need for Action

TVA is proposing to place rock riprap along a section of shoreline at Elk River Mile 139 on Tims Ford Reservoir in order to address severe erosion and undercutting of the shoreline. This section of the river is locally referred to as Jolly's Rock. A 250 linear foot section would be stabilized with rock riprap.

TVA is responsible for the management of public shoreline on Tims Ford Reservoir and for the protection of shoreline and aquatic resources, while providing reasonable public access. The proposal is intended to minimize the destabilization and erosion of the shoreline and banks of the island and the resultant turbidity and sedimentation of reservoir waters. Erosion of the shoreline is increasing, primarily due to the increasing presence of boats producing higher wakes on the reservoir. The proposal supports and is consistent with TVA's mission of environmental stewardship, the objectives for water resource management in the TVA Natural Resources Plan (NRP, 2011), and TVA's management goals set forth in TVA's Tims Ford Reservoir Land Management Plan (RLMP, 2000).

Proposed Action

The proposed stabilization project would consist of placing rock riprap along approximately 250 feet of shoreline, located on Tims Ford Reservoir, Elk River Mile 139 in Tennessee (Attachment 1). The riprap would be placed using land-based equipment. The escarpment of the shoreline to be stabilized is approximately 8 to 10 feet high above the water. The banks are bare of vegetation and actively eroding. The top of the river bank contains a few mature hardwoods and eastern red cedars, with an understory of grasses and forb while the back lying lands consist of agricultural fields. TVA retains ownership of the shoreline and backlying lands and has issued an active Grasslands and Agricultural Lands Management (GALM) license to a private farmer to manage the property. The site is depicted in Attachment 2.

The project will use Class II riprap (generally 12 to 24 inches in diameter) to prevent washout from wave action. Riprap would be placed along 250 feet of shoreline such that the bottom of the riprap would be 10 feet below the normal summer operating level (888 feet mean sea level) and the top would be even with that level. The estimated volume of riprap is 465 cubic yards. No bankshaping would occur and no filter fabric beneath the rock would be used for this project. Project design drawings are provided in Attachment 3.

In the future, the riprap installation may periodically require routine, minor maintenance (i.e., the addition of rock riprap at locations where sloughing has occurred). Just above the riprap stabilization, coir rolls would be placed along the shoreline and water tolerant saplings would be planted. Possible sapling species include sycamore, birch, and water tolerant oak species. At the location of the navigation marker, no saplings would be planted and only riprap would be applied to ensure visibility of the marker is maintained. TVA proposes to conduct the work in late 2017 during low water elevations and estimates that the work would be completed in less than one month.

Riprap placed below the Ordinary High Water Mark (OHWM) of jurisdictional waters is considered fill material and is therefore subject to Sections 401 and 404 of the Clean Water Act. Before implementing the project, TVA must obtain an Aquatic Resource Alteration Permit from the State of Tennessee, Department of Environment and Conservation, under Section 401 of the Clean Water Act. TVA must also gain approval for the project from the U.S. Department of Army, Army Corps of Engineers (USACE), under Section 404. This project qualifies for

USACE's Nationwide Permit (NWP) 13 for Bank Stabilization, which became effective March 19, 2017. This project meets the terms and conditions of the NWP which do not require written authorization from the USACE.

TVA is also considering taking no action (i.e., not placing riprap along the Jolly's Rock shoreline to stabilize the erosion issues). Taking no action would not address these resource condition issues, which is inconsistent with TVA's objectives for managing the public shoreline. Taking no action is included in this analysis to provide a baseline for comparison of project impacts and benefits. TVA also considered other stabilization methods (e.g. vegetation and bioengineering) but dismissed them from further consideration because measures which do not include hard armoring have limited success in addressing critical erosion of such high banks.

Environmental Impacts

TVA has reviewed the proposed project and documented potential environmental impacts related to the project in the attached Checklist (Attachment 5). 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, TVA conducted a review of its Natural Heritage Database and found that no terrestrial threatened or endangered (T&E) species have been documented at or within a least a three mile radius of the project location (Attachment 4). No trees would be removed as part of the project, ensuring that there would be no impacts to the habitat of the Indiana bat (*Myotis sodalis*). Eleven aquatic T&E species were identified within a 10 mile radius of the project location. These aquatic species require swift flowing water and a rock substrate. Suitable habitat for these species is available in the run of the river section of the Elk River, below Tims Ford Dam. However, suitable habitat for these species is not available at the project location because the impoundment of the dam has created slow moving water and a sediment laden embayment there. In addition, according to the database, no sensitive aquatic or terrestrial wildlife habitats occur adjacent to or within the project area. Therefore, the proposal would have no effect on endangered, threatened, or special status plant, aquatic, or wildlife species.

No impacts to cultural resources or historic properties would occur as a result of this project. A number of archaeological surveys have occurred within the project's Area of Potential Effects (APE). Due to the presence of a documented prehistoric site (40FR37) adjacent to the APE and the sensitivity of the landform for archaeological sites, TVA performed a field review of the proposed action. No artifacts or intact archaeological deposits were identified within the APE. No evidence of the prehistoric site was identified during the field review; the shelter is most likely down slope from the APE and completely submerged by the lake.

A review of the National Wetland Inventory database indicates that there are no wetlands at the location and there are no expected impacts to water flow or the river channel. Therefore, impacts to wetland resources would not occur.

Because of the nature of the stabilization project, there is no practicable alternative that would avoid siting riprap in the floodplain. Although the 100-year floodplain may be affected, the stabilization structure falls under the guidelines of TVA's class review of repetitive actions within the 100-year floodplain. See 46 Fed. Reg. 22845 (Apr. 21, 1981). A navigation marker is located on the point of Jolly's Rock, above the area to be stabilized. Navigation of the river

system would not be adversely impacted by the project and the riprap stabilization would provide extra reinforcement and erosion protection to support the marker.

During construction, some soil erosion may occur or dredged or fill materials may be discharged and minor and temporary impacts may occur to riparian vegetation along the shoreline as the riprap is placed. However, TVA would implement standard measures and apply best management practices in implementing the project in order to minimize or mitigate potential impacts of the project. While some erosion may occur during construction, the primary beneficial effect of the project would be the long-term reduction in erosion of the shoreline and in sloughing of its banks.

If TVA does not take action, the shoreline of Jolly's Rock will continue eroding and the undercutting and sloughing of banks is expected to worsen. Shoreline erosion is currently estimated at over 15 feet of bank width at the location of the navigation marker. Erosion of the shoreline will continue to increase water turbidity and banks that are currently vertical or near vertical may be heightened by continued erosion. As portions of the bank slough into the reservoir, some vegetation would also become unstable and fall on to the shoreline.

The parcel is not located within or adjacent to a wildlife management, park, scenic, or heritage area. The riprap installation would be visible to visitors of Tims Ford State Park on the shoreline to the north, private residences to the west, and boaters on the reservoir. As there are few riprap installations in this area of the reservoir, the riprap around Jolly's Rock may contrast with the natural appearance of shorelines within view of the point. However, much of the residential shoreline to the west has already had riprap applied to it and is visible to the same points of reference. Therefore, the visual impacts of the project to the surrounding view shed should be minor.

The proposal is limited in scope and designed to improve degraded conditions along shoreline in this area of Tims Ford Reservoir. The potential adverse impacts of the project, when added to adverse impacts from other activities within the immediate area, would be insignificant. TVA regularly considers shoreline stabilization projects in Tims Ford Reservoir. TVA also regularly considers proposals by property owners on the reservoir for minor structures or docks which may include the installation of riprap to stabilize the shoreline along the property. Cumulatively, these stabilization projects would change the character of small portions of the reservoir's shoreline but would have beneficial overall impacts – though very diffuse in reach – because of decreased erosion and water turbidity and improved recreational access. The cumulative impacts associated with these stabilization projects have also been described in the environmental review of the NRP and RLMP.

Agencies and Persons Consulted

In addition to the necessary approvals from TVA, the following permits would be required for implementation of the proposed action:

- USACE Permit(s) pursuant to Section 404 of the Clean Water Act for the discharge of fill material into the waters of the United States.
- Aquatic Resource Alteration Permit/Water Quality Certification from the Tennessee Department of Environment and Conservation pursuant to Section 401(a)(1) of the Clean Water Act for proposed bank stabilization.

Conclusion and Finding

Based on the findings above and the analyses in the attached checklist, we conclude that the proposed action to apply riprap stabilization to 250 feet of shoreline on Tims Ford Reservoir at the Jolly Rock location would not be considered a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



Amy B. Henry, Manager
NEPA Program and Valley Projects
Tennessee Valley Authority

July 17, 2017

Date Signed

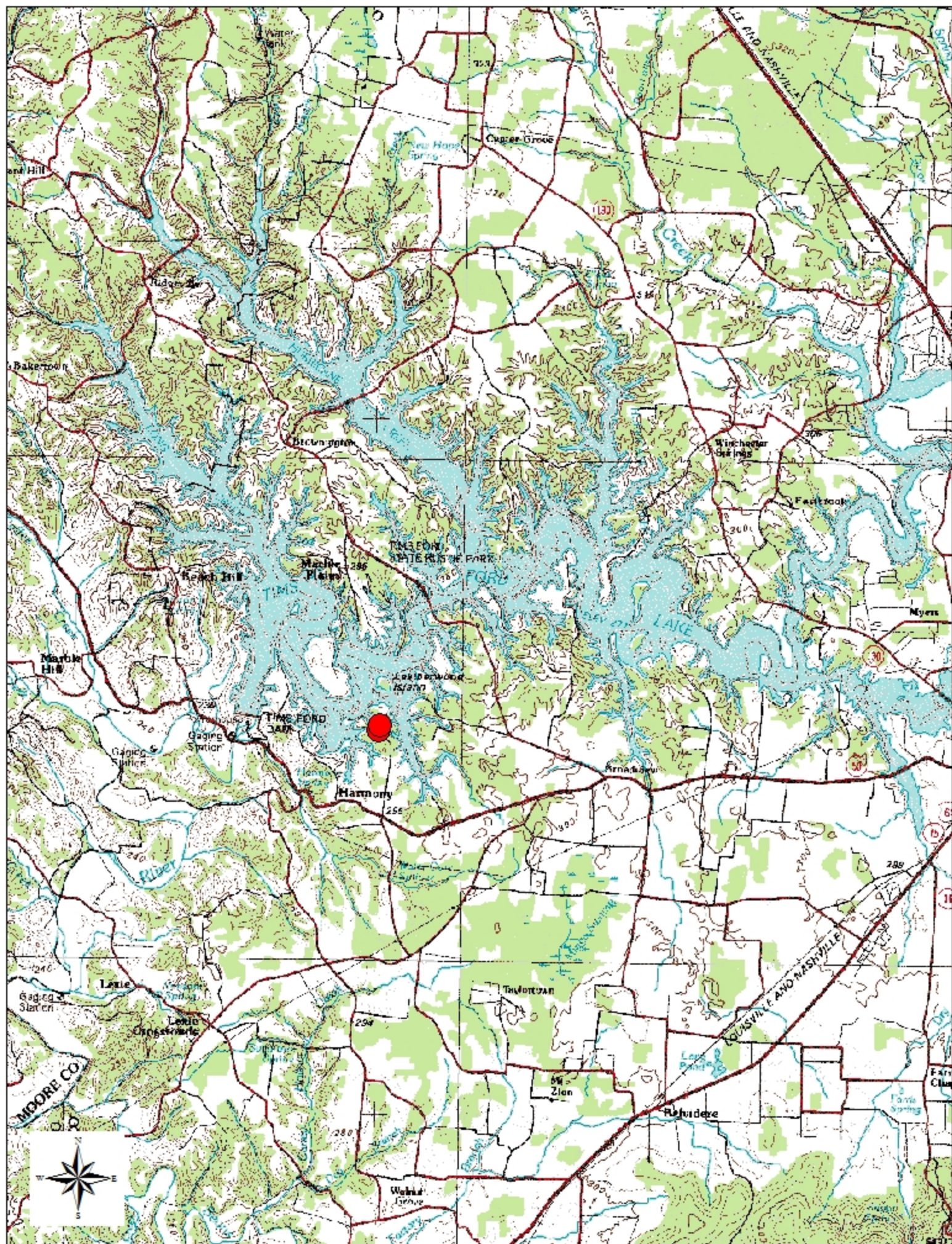
TVA Preparers

Damien Simbeck – Land Use and Watershed Specialist
Josh Burnette – Heritage Review and Watershed Specialist
Michaelyn Harle – Archaeologist
Doug White – NEPA Environmental Support
Matthew Higdon – NEPA Specialist

List of Attachments

Attachment 1 - Project Map
Attachment 2 - Site Photographs
Attachment 3 - Project Drawings
Attachment 4 - Environmental Review Checklist
Attachment 5 - TVA Natural Heritage Database Query

Attachment 1 – Project Map



Attachment 2 – Site Photographs

Jolly's Rock Shoreline Stabilization
Tim's Ford Reservoir



Photograph 1: Shoreline erosion. Looking west.



Photograph 2: Shoreline erosion. Looking east.

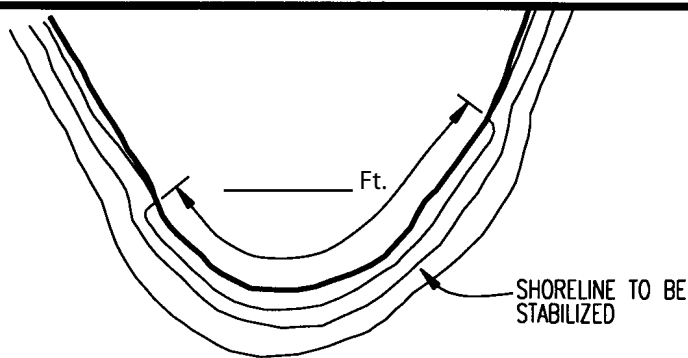


Photograph 3: Shoreline erosion, close up of escarpment. Looking south.

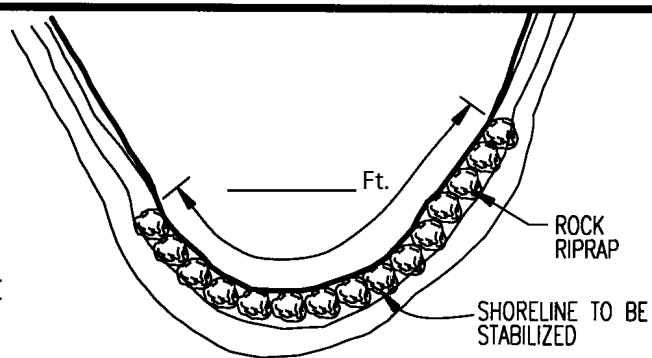


Photograph 4: Adjacent uplands. Looking north.

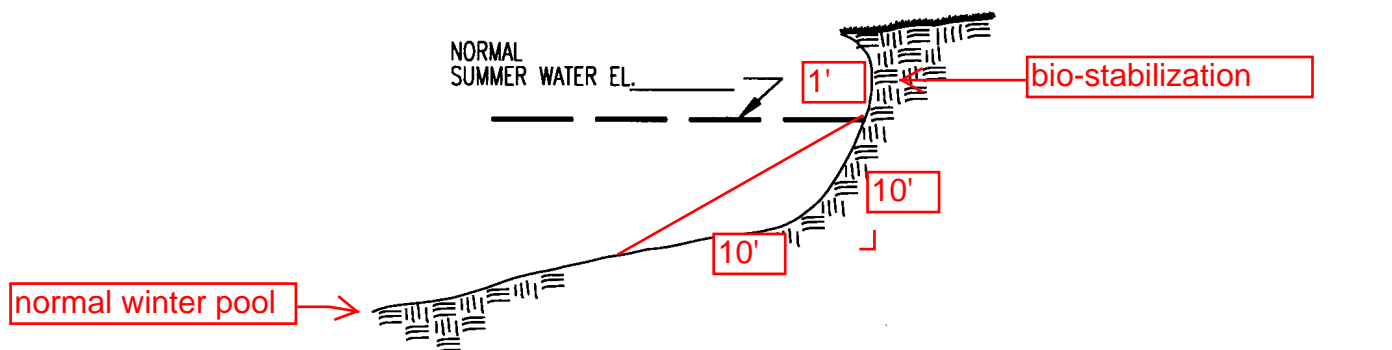
Attachment 3 – Project Drawings



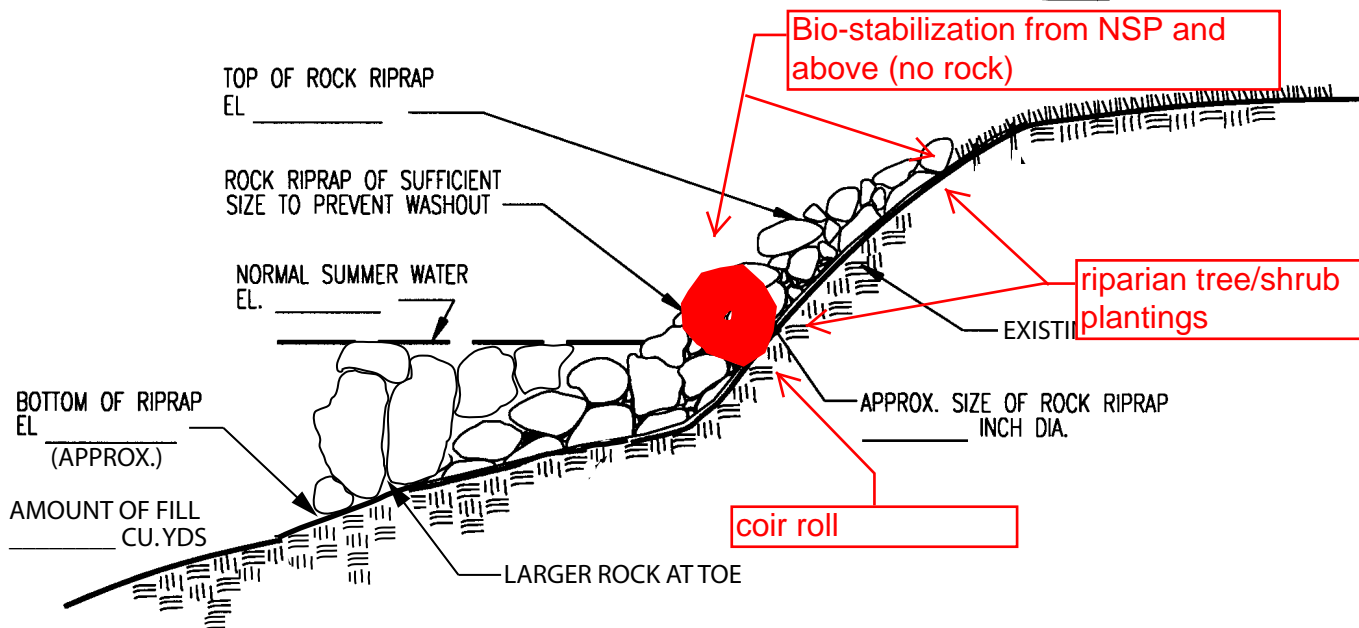
**PLAN SHOWING
EXISTING SHORELINE**



**PLAN SHOWING
STABILIZED SHORELINE**



SECTION SHOWING EXISTING SHORELINE



SECTION SHOWING STABILIZED SHORELINE

THE NORMAL SUMMER WATER LEVEL IS: _____

NOTE:
INCLUDE ALL DIMENSIONS AND ELEVATIONS
WHERE INDICATED.



RESERVOIR NAME: _____

TYPICAL SHORELINE ROCK RIPRAP

PROJECT LOCATION INFORMATION:

STREAM NAME _____ SUBDIVISION NAME _____

RESERVOIR NAME _____ LOT NUMBER _____

MILE MARKER _____ MAP NO. _____

(APPLICANT'S NAME)

Attachment 4 – Environmental Review Checklist

Categorical Exclusion Checklist for Proposed TVA Actions

Categorical Exclusion Number Claimed	Organization ID Number RLR-275224 (NRM Task Number)	Tracking Number <i>(NEPA Administration Use Only)</i> 36307
Form Preparer Damien J Simbeck	Project Initiator/Manager Damien J Simbeck	Business Unit P&NR - Reservoir Property & Resource Mgmt
Project Title Shoreline Stabilization - Jolly's Rock		Hydrologic Unit Code
Description of Proposed Action <i>(Include Anticipated Dates of Implementation)</i> For Proposed Action See Attachments and References		<input type="checkbox"/> Continued on Page 3 <i>(if more than one line)</i>
Initiating TVA Facility or Office Not applicable		TVA Business Units Involved in Project P&NR - Reservoir Property & Resource Mgmt
Location <i>(City, County, State)</i> Franklin, TN, Elk River Mile 139L, near mouth of Wiseman Branch.		

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			Simbeck, Damien J. 02/14/2017
2.Is part of a larger project proposal involving other TVA actions or other federal agencies?	X			Simbeck, Damien J. 02/14/2017
* 3.Involves non-routine mitigation to avoid adverse impacts ?	X		No	Simbeck, Damien J. 02/14/2017
4.Is opposed by another federal, state, or local government agency?	X			Simbeck, Damien J. 02/14/2017
* 5.Has environmental effects which are controversial?	X			Simbeck, Damien J. 02/14/2017
* 6.Is one of many actions that will affect the same resources?	X			Simbeck, Damien J. 02/14/2017
7.Involves more than minor amount of land?	X			Simbeck, Damien J. 02/14/2017

*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	Simbeck, Damien J. 02/14/2017
4.Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Simbeck, Damien J. 02/14/2017
5.Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Simbeck, Damien J. 02/14/2017
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	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	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	Simbeck, Damien J. 02/14/2017
13.Potentially affect surface water?	X		Yes	No	Simbeck, Damien J. 02/14/2017
14.Potentially affect drinking water supply?	X		No	No	Simbeck, Damien J. 02/14/2017
15.Potentially affect groundwater?	X		No	No	Simbeck, Damien J. 02/14/2017
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	Simbeck, Damien J. 02/14/2017
2.Generate water pollutants?	X		No	No	For comments see attachments
3.Generate wastewater streams?	X		No	No	Simbeck, Damien J. 02/14/2017
4.Cause soil erosion?	X		No	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		No	No	Simbeck, Damien J. 02/14/2017
7.Generate or release hazardous waste (RCRA)?	X		No	No	Simbeck, Damien J. 02/14/2017
8.Generate or release universal or special waste, or used oil?	X		No	No	Simbeck, Damien J. 02/14/2017
9.Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Simbeck, Damien J. 02/14/2017
10.Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?	X		No	No	Simbeck, Damien J. 02/14/2017
11.Involve disturbance of pre-existing contamination?	X		No	No	Simbeck, Damien J. 02/14/2017
12.Generate noise levels with off-site impacts?	X		No	No	Simbeck, Damien J. 02/14/2017
13.Generate odor with off-site impacts?	X		No	No	Simbeck, Damien J. 02/14/2017
14.Produce light which causes disturbance?	X		No	No	Simbeck, Damien J. 02/14/2017
15.Release of radioactive materials?	X		No	No	Simbeck, Damien J. 02/14/2017
16.Involve underground or above-ground storage tanks or bulk storage?	X		No	No	Simbeck, Damien J. 02/14/2017
17.Involve materials that require special handling?	X		No	No	Simbeck, Damien J. 02/14/2017

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	Simbeck, Damien J. 02/14/2017
2.Increase the potential for accidents affecting the public?	X			No	Simbeck, Damien J. 02/14/2017
3.Cause the displacement or relocation of businesses, residences, cemeteries, or farms?	X			No	Simbeck, Damien J. 02/14/2017
4.Contrast with existing land use, or potentially affect resources described as unique or significant in a federal, state, or local plan?	X			No	Simbeck, Damien J. 02/14/2017
5.Disproportionately affect minority or low-income populations?	X			No	Simbeck, Damien J. 02/14/2017
6.Involve genetically engineered organisms or materials?	X			No	Simbeck, Damien J. 02/14/2017
7.Produce visual contrast or visual discord?	X			No	Simbeck, Damien J. 02/14/2017
8.Potentially interfere with recreational or educational uses?	X			No	Simbeck, Damien J. 02/14/2017
9.Potentially interfere with river or other navigation?	X		No	No	Simbeck, Damien J. 02/14/2017
10.Potentially generate highway or railroad traffic problems?	X			No	Simbeck, Damien J. 02/14/2017

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	Simbeck, Damien J. 02/14/2017
2.Involve a structure taller than 200 feet above ground level?	X		No	Simbeck, Damien J. 02/14/2017
3.Involve site-specific chemical traffic control?	X		No	Simbeck, Damien J. 02/14/2017
4.Require a site-specific emergency notification process?	X		No	Simbeck, Damien J. 02/14/2017
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	Simbeck, Damien J. 02/14/2017
6.Potentially impact operation of the river system or require special water elevations or flow conditions??	X		No	Simbeck, Damien J. 02/14/2017
7.Involve construction or lease of a new building or demolition or renovation of existing building (i.e. major changes to lighting, HVAC, and/or structural elements of building of 1000 sq. ft. or more)?	X		No	Simbeck, Damien J. 02/14/2017

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 Damien J Simbeck	Date 07/17/2017
TVA Organization RSO&E	E-mail djsimbec@tva.gov
	Telephone

Environmental Concurrence Reviewer

W. Doug White 07/17/2017

Signature

Preparer Closure

Damien J Simbeck 07/21/17

Signature

Other Environmental Concurrence Signatures (as required by your organization)

Signature

Signature

Signature

Signature

Other Review Signatures (as required by your organization)

Martin B High II 07/21/2017

Signature

Signature

Signature

Signature

Signature

Signature

Attachments/References

Description of Proposed Action Continued from Page 1

Stabilize severely eroding shoreline at northwest point on Parcel 15 (Jolly's Rock) using a mixture of class II rip rap and biostabilization methods. Site has eroded severely since creation of Tims Ford Reservoir. Navigation marker was originally 15+ feet from water's edge and is now about to fall into reservoir. Rip Rap will be delivered by land and dumped along shoreline for easy relocation. Rip rap will be installed during low water elevations using loader. No streambank shaping will occur. Rock will be placed from base to near normal summer pool elevation. At summer pool elevation, coir rolls will be placed along shoreline and hardwoods (sycamore, birch, water-tolerant oaks, etc.) will be planted behind rolls. Rip rap will be installed at shoreline in front of navigation sign where vegetation must be controlled for visibility. Project will be a partnership between TVA and GALM licensee. TN State Parks (Tims Ford) will also be approached for partnership capabilities.

CEC General Comment Listing

- | | | | |
|----|--|------------|----------------|
| 1. | Vicinity Map | | |
| | By: Damien J Simbeck | 02/14/2017 | |
| | Files: Wiseman Branch_Vicinity Map.jpg | 02/14/2017 | 1,313.83 Bytes |
| 2. | Shoreline Photos | | |
| | By: Damien J Simbeck | 02/14/2017 | |
| | Files: JollysRockPhotos_Page_3.jpg | 02/14/2017 | 320.07 Bytes |
| | JollysRockPhotos_Page_1.jpg | 02/14/2017 | 419.35 Bytes |
| | JollysRockPhotos_Page_2.jpg | 02/14/2017 | 482.29 Bytes |

CEC Comment Listing

Part 2 Comments

- | | | | |
|-----|---|------------|----------------|
| 1. | See attached table for records of special status species based off of search of TVA natural heritage data on 3/21/2017. Review of project plans, site photos, and TVA heritage data shows that the project will not affect these species or their habitat. | | |
| | The proposed actions will have no effect on the caves inhabited by the listed bat species and will have no effect on these populations. | | |
| | Habitat at the proposed site consists of eroded shoreline and would not be adequate for the state listed plant and terrestrial animal species known to occur in the vicinity. | | |
| | The proposed actions will have no effect on any tree in the vicinity; therefore there will be no potential effect to M. sodalis populations. | | |
| | By: Joshua Burnette | 04/06/2017 | |
| | Files: 275224_Heritage_species_list.pdf | 03/21/2017 | 76.47 Bytes |
| 2. | TVA finds the undertaking will have no effect to historic properties (see attached) "CEC36307_RLR275224_68846_Section106.pdf" for supporting documentation. | | |
| | By: Michaelyn S Harle | 03/09/2017 | |
| | Files: CEC36307_RLR275224_68846_Section106.pdf | 03/09/2017 | 1,769.06 Bytes |
| 8. | Will result in minor amount of fill within the 100 year floodplain. | | |
| | By: Damien J Simbeck | 02/14/2017 | |
| 9. | Review of TVA heritage data shows 4 managed areas, 2 special areas, and 3 natural areas within 5 miles of the project site. The project will not affect these resources due to its nature (stabilization of shoreline) and its distance from these resources. | | |
| | By: Joshua Burnette | 03/21/2017 | |
| 10. | Review of TVA heritage data, site information and photos, and project plans shows that the project will not contribute to the spread of exotic or invasive species. | | |

- By: Joshua Burnette 03/21/2017
11. Review of TVA heritage data shows no records for migratory birds within 3 miles of the project site. Review of site photos and information shows the project will not affect migratory bird populations.
By: Joshua Burnette 03/21/2017
16. Review of TVA heritage data, site information and photos, and project plans shows that the project will not affect unique or important terrestrial habitat.
By: Joshua Burnette 03/21/2017
17. Most populations of state and federally listed mussels, snails and fishes were extirpated after the completion of Tims Ford Dam. Extant populations are known from some of the Elk River below the dams and from some of the unimpounded tributaries. Habitat at the proposed site, impounded embayment, is not suitable for the various state and federally listed aquatic species known to occur in the vicinity.
By: Joshua Burnette 03/21/2017
6. No significant impacts are anticipated since only minor amounts of wetlands occur at the site.
By: Joshua Burnette 03/21/2017
7. Actions will not affect water flow or existing condition of the stream channel. Stabilization will protect stream bank from erosion.
By: Joshua Burnette 03/21/2017
7. Adverse impacts to stream banks including erosion could be expected during the construction of the project. These impacts should be of short duration and insignificant with the use of standard erosion control BMPs.
- The beneficial impacts of completing the project would include the decrease of continued erosion from this location and a decrease of sediment loading to the reservoir. Additionally, the bio stabilization techniques would provide additional riparian habitat along the edge of the reservoir.
By: W. D White 04/04/2017

Part 3 Comments

2. Minor disturbance of ground during installation may result in small amounts of sediment entering surface water. Sediments will rapidly settle and not be widespread in reservoir. Stabilization will reduce overall sediment load into reservoir from streambank erosion.
By: Damien J Simbeck 02/14/2017
4. Minor disturbance of ground during installation may result in small amounts of sediment entering surface water. Sediments will rapidly settle and not be widespread in reservoir. Stabilization will reduce overall sediment load into reservoir from streambank erosion.
By: Damien J Simbeck 02/14/2017
5. Discharge of riprap below the Ordinary High Water Mark of the reservoir will trigger the permitting requirements in Section 404 and 401 of Clean Water Act .
By: W. D White 04/04/2017

CEC Permit Listing

Part 2 Permits

13. State Water Quality Certification (¿401 Clean Water Act)
By: Damien J Simbeck 02/14/2017

Part 3 Permits

5. State Water Quality Certification (¿401 Clean Water Act)
By: W. D White 04/04/2017
5. Section 404 Permit (¿404 Clean Water Act)
By: W. D White 04/04/2017

CEC Commitment Listing









Tennessee Valley Authority

**Finding of No Historic Properties Affected Documentation Pursuant to
36 CFR 800.11(d)**

Jolly's Rock Stabilization

3/9/2017

**Tennessee Valley Authority
400 West Summit Hill Drive
West Tower 11D
Knoxville, Tennessee 37902**

Attachment 5 - TVA Natural Heritage Database Query

Table 1. Records of state- and federal-listed aquatic animal species located within a 10 mile radius search

<u>Scientific Name</u>	<u>Common Name</u>	<u>EO Rank</u>	<u>State Rank</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Watershed</u>
Epioblasma florentina walkeri	Tan Riffleshell	X - Extirpated	S1	E	LE	
Epioblasma turgidula	Turgid Blossom Pearlymussel	X - Extirpated	SX	E	LE	
Fusconaia cor	Shiny Pigtoe Pearlymussel	H? - Possibly historical	S1	E	LE	
Fusconaia cuneolus	Fine-rayed Pigtoe	X - Extirpated	S1	E	LE	
Hemitremia flammea	Flame Chub	H? - Possibly historical	S3	D		
Leptoxis umbilicata	Umbilicate River Snail	H - Historical	S1	TRKD		
Lithasia lima	Warty Rocksnail	H - Historical	S2			
Pleuroaia dolabelloides	Slabside Pearlymussel	H - Historical	S2		LE	
Ptychobranhus subtentum	Fluted Kidneyshell	X - Extirpated	S2		LE	
Quadrula intermedia	Cumberland Monkeyface	X - Extirpated	S1	E	LE	
Toxolasma lividus	Purple Lilliput	X - Extirpated	S1S2			

Table 2. Records of state- and federal-listed plant species and champion tree points located within a 5 mile radius search

<u>Scientific Name</u>	<u>Common Name</u>	<u>EO Rank</u>	<u>State Rank</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Watershed</u>
Juglans cinerea	butternut	CD - Fair or poor estimated viability	S3	T		
Panax quinquefolius	American ginseng	E - Verified extant (viability not assessed)	S3S4	S-CE		

Table 3. Records of Managed Areas (MABR) points and Heritage Sites (SBR) points located within a 5 mile radius search

Managed Areas (MABR) Points

Managed Area Name
 MINGO SWAMP STATE WILDLIFE MANAGEMENT AREA
 TIMS FORD STATE RUSTIC PARK
 TIMS FORD DAM RESERVATION
 TIMS FORD RESERVOIR RESERVATION

Heritage Sites (SBR) Points

Site Name
 MINGO SWAMP/TN POTENTIAL NATIONAL NATURAL LANDMARK
 MINGO SWAMP/TN PROTECTION PLANNING SITE

Heritage Natural Areas

MA Name
 ELK RIVER
 TIMS FORD STATE PARK
 WISEMAN CAVE

Table 4. Records of state- and federal-listed terrestrial animal species and heronry points located within a 3 mile radius search

<u>Scientific Name</u>	<u>Common Name</u>	<u>EO Rank</u>	<u>State Rank</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Watershed</u>
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NONE

Table 5. Records of caves sites located within a 3 mile radius search

<u>Location</u>	<u>Number</u>	<u>EO Rank</u>
<u>Franklin, TN</u>	1	Not Ranked