



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

September 12, 2016

Via Electronic Mail to mshigdon@tva.gov

Matthew Higdon
NEPA Specialist
Tennessee Valley Authority
400 West Summit Hill Drive, WT 11D
Knoxville, TN 37902-1499

Dear Mr. Higdon:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Tennessee Valley Authority (TVA) *Draft Environmental Assessment for the Pickwick Landing Dam South Embankment Seismic Upgrade* (Draft EA). The applicant, TVA, proposes to make upgrades to the south embankment of Pickwick Landing Dam in Hardin County, Tennessee to improve performance of the dam during and following a large earthquake, should one occur. Upgrades would be made to both the upstream and downstream sides of the embankment, and would include the construction of berms and placement of fill. This includes the following major actions:

- Proposed Upstream or East Side of the Embankment – This area would include proposed placement of fill for the upstream berm and extended fill area. The proposed impact area for this portion of the project is approximately 32 acres.
- Proposed Downstream or West Side of the Embankment – This area would include proposed placement of fill for the downstream berm and extended fill area. The proposed impact area for this portion of the project is approximately 35 acres.
- Proposed Laydown Area – Approximately 7.5 acres of the Study Area has been reviewed for use as a materials and equipment storage location for the project. This location is in a maintained area on the west side of the embankment and North Carolina Landing Road.

Actions considered in detail within the Draft EA include:

- No Action Alternative – Under the No Action Alternative, TVA would take no action to improve the condition of the embankment. TVA would continue to operate the dam and reservoir under normal operations. The risk of a dam breach and reservoir loss during or following a large seismic event would remain. TVA notes that this alternative is not considered reasonable because it does not address the risk to public health and safety or the region's economy.
- Proposed Action Alternative (Upstream and Downstream Berms with Extended Fill Areas) – Under Alternative B, TVA would make upgrades to the upstream and downstream slopes of the dam's south embankment. To address potential shallow failures of the embankment, TVA would construct berms

along the toe of the upstream and downstream sides of the embankment. To address deeper failure modes, TVA would place extended fill in select locations on each side of the embankment.

TDEC's **Tennessee State Parks and Real Property Management** and the **Tennessee Geological Survey (TGS)** have reviewed the Draft EA and have no specific comments regarding the proposed action or its alternatives.

TDEC's **Division of Natural Areas (DNA)** has reviewed the Draft EA and the location of the proposed project with respect to rare species and critical habitat. DNA finds that there is limited suitable habitat for rare, threatened, or endangered plant species within the project area, and as such does not anticipate any impacts to rare, threatened, or endangered plant species.

TDEC's **Office of Energy Program (OEP)** has reviewed the Draft EA and commends TVA for strengthening the resiliency of Tennessee's flood control and infrastructure in the event of a large seismic event in the New Madrid Seismic Zone.

TDEC appreciates the opportunity to comment on this Draft EA. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



Kendra Abkowitz, PhD
Director of Policy and Planning
Tennessee Department of Environment and Conservation
Kendra.Abkowitz@tn.gov
(615) 532-8689

cc: Ron Zurawski, TDEC, TGS
Stephanie A. Williams, TDEC, DNA
Molly Cripps, TDEC, OEP
Bill Avant, TDEC, TSP