



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

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

June 24, 2016

Via Electronic Mail to Trudy.I.carr.civ@mail.mil

Trudy Carr

Chief Compliance Branch Department of Public Works
Environmental Division, IMCB-PWE
Building 865 16th Street and Bastogne
Fort Campbell, KY

Dear Trudy Carr:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the U.S. Army Environmental Command (AEC) and U.S. Fort Campbell's *Draft Environmental Assessment for the Proposed Removal of the Lake Taal Dam* (Draft EA) and *Finding of No Significant Impact* (FONSI). The applicant, AEC, proposes to lower portions of the dam and reduce the impoundment upstream of the dam located within the Fort Campbell Military Reservation, in Montgomery County, Tennessee to achieve compliance with the state and Army regulations. The proposed action is needed to correct the deficiencies of the Lake Taal Dam to ensure compliance with the Tennessee Safe Dams Act of 1973, Department of the Army (DA) Pamphlet 420-1-3 Transportation Infrastructure and Dams, and Army Regulation (AR) 420-1 Army Facilities Management, which govern the classification of dams and establishes performance standards of dams on military installations.

Actions considered in detail within the Draft EA include:

- No Action Alternative – Under the No Action Alternative, AEC would not modify Lake Taal Dam's infrastructure. Fort Campbell would continue to utilize the Lake Taal Dam in its current capacity as a recreational area.
- Alternative 1 (Preferred Alternative) – AEC would lower the dam from its current crest elevation of 494 feet above mean sea level (amsl) to 470 feet amsl. A channel, approximately 30 feet wide at its base, would be cut through the remaining embankment and aligned to discharge into the existing tailrace. The upstream elevation of the channel would be at elevation 469 feet amsl and the channel would slope towards the tailwater on a 4.6-percent grade. This option requires no removal of accumulated lake sediment or disturbance of the former original lake bed. The remaining portion of the embankment would be graded back toward the east abutment on a 9.4-percent grade. Approximately 23,000 cubic yards (CY) of dam embankment material would be removed and placed along the east bank both upstream and downstream of the existing dam footprint. The soil disposal areas would be graded to stabilize the new slope. This option would result in a small ponded area of about 1.7 acres in the former lake bed that would contain about 2.4 acre-feet of water (782,042 gallons) at a water surface elevation of 469 feet amsl.

- Alternative 1a – AEC would lower the dam from its current crest elevation of 494 feet amsl to 470 feet 25 amsl. A channel, approximately 20 feet wide at its base, would be cut through the remaining embankment and aligned to discharge into the existing tailrace. The upstream elevation of the channel would be at elevation 464 feet amsl and the channel would slope towards the tailwater on a 1.3-percent grade. While this option would require the removal of some accumulated sediment (about 1,200 CY) from the upstream dam toe, it would allow for the free drainage of the stream without any upstream ponded area. The remaining portion of the embankment would be graded back toward the east abutment on a 9.4-percent grade. Approximately 26,000 CY of dam embankment material and sediment would be removed and placed along the east bank both upstream and downstream of the existing dam footprint.
- Alternative 1b –AEC would lower the dam from its current crest elevation of 494 feet amsl to 470 feet amsl. A channel, approximately 40 feet wide at its base, would be cut through the remaining embankment and aligned to discharge into the existing tailrace. The upstream elevation of the channel would be at elevation 469 feet amsl and the channel would slope towards the tailwater on a 5.8- to 3.8-percent grade. This option would require the removal of additional accumulated sediment and lake bed soil to channelize the stream course toward the west abutment (about 1,500 CY). A small ponded area would be formed upstream of the dam toe similar in size to the one in Channel Plan 1 (1.7 acres/2.4 acre-feet of water). The remaining portion of the embankment would be graded back toward the east abutment on a 9.4-percent grade. Approximately 25,400 CY of dam embankment material and sediment would be removed and placed along the east bank both upstream and downstream of the existing dam footprint.

TDEC’s **Tennessee Geological Survey (TGS)** has reviewed the Draft EA and has no specific comments regarding the proposed action or its alternatives.

TDEC’s **Division of Natural Areas (DNA)** has reviewed the Draft EA with respect to rare species and critical habitat and has the following comments on the proposed action and its alternatives:

- DNA comments that dam removal can be a highly effective river restoration tool to reverse negative impacts. DNA supports the removal of Lake Taal dam as it will likely benefit aquatic species by improving flow, water quality, sediment release and transport, and connectivity of Fletchers Fork.
- DNA comments that Alternative 1a would result in the fewest impacts to rare species and critical habitat of all options considered because it would allow for free drainage of the stream without any upstream ponded area.

TDEC’S **Division of Water Resources (DWR)** has reviewed the Draft EA and has the following comments on the proposed action and its alternative:

- Under Section 3.7.1.3 “Wetlands,” DWR notes that there is a potential for wetland impacts and recommends that AEC complete and include a U.S. Army Corps of Engineers wetland delineation form within the Final EA.
- DWR recommends AEC include additional analysis on the downstream impacts of accumulated sediments washing downstream within the context of the proposed actions in the Final EA.
- Under “Proposed Action,” DWR recommends that AEC include in the Final EA details on the process used for determining the proposed channel widths within each alternative. When possible, DWR recommends natural channel design standards be used in the restoration of former streams.

TDEC’s **Division of Solid Waste Management (DSWM)** has reviewed the Draft EA and has the following comments on the proposed action and its alternative:

- Based on the information available in TDEC's WasteBin database and files, DSWM did not identify any permit, compliance, or enforcement solid or hazardous waste related issues within the site location.
- DSWM comments that the bulk of the material disturbed during the removal of the earthen dam will be non-regulated material such as concrete, debris and soil. DSWM comments that wastes which may be unearthed during the project would be subject to a hazardous waste determination and recommends that AEC include information regarding the appropriate management of such wastes within the context of the proposed actions in the Final EA.¹
- Tennessee's Solid Waste Management program dates back to 1972, so there could conceivably be disposal in this area that predates TDEC's program. Any wastes which may be unearthed during the project would be subject to a hazardous waste determination, and must be managed appropriately. DSWM recommends that AEC consider the management of potential wastes unearthed in the context of the Proposed Action Alternative in the Final EA.

TDEC'S **Division of Air Pollution Control (APC)** has reviewed the Draft EA and has the following comments on the proposed action and its alternative:

- Under Section 2.1.1 "Detailed Project Description," APC recommends that any tree or limb debris be disposed of using methods other than open burning. If open burning is determined to be the only acceptable disposal method, APC recommends that AEC include within the context of the proposed actions in the Final EA that such activities will be conducted in a manner to encourage responsible smoke dispersion and in accordance with the state open burning regulatory requirements.²
- APC comments that Table 3-1 in Section 3.3.1 "Affected Environment" references out of date Environmental Protection Agency (EPA) National Ambient Air Quality Standards (NAAQS) and recommends that AEC reference the current EPA NAAQS in the Final EA.³
- Under Section 3.3.1 "Affected Environment," APC comments that Montgomery County in Tennessee and Christian County in Kentucky are classified as attainment for all critical pollutants and recommends that AEC correct this information with the Final EA.
- APC comments that the proposed actions in the Draft EA include earth moving and relocation of removed dam materials to soil disposal area(s) on site. APC recommends that AEC include procedures to mitigate any potential fugitive dust generated from the earth moving equipment on site in the context of the proposed actions in the Final EA.
- APC comments that the proposed actions in the Draft EA may potentially expose the submerged lake bed and silt accumulations to air drying, which may result in fugitive dust. APC recommends that AEC include in the context of the proposed actions of the Final EA that a vegetative cover will be established and maintained as needed to mitigate possible dust impacts in the exposed areas beneath the dam's impoundment areas.

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.

¹ Fort Campbell is a large quantity hazardous waste generator, and as such, should be familiar with the hazardous waste regulations, disposal requirements and reporting requirements.

² TDEC APC Rule 1200-3-4-.01 *et seq.*, <http://share.tn.gov/sos/rules/1200/1200-03/1200-03-04.pdf>. Additional information on open burning in Tennessee is available at <https://tn.gov/environment/article/apc-open-burning> and <http://www.burnsafetn.org/>.

³ The current EPA NAAQS table is available at <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

Sincerely,

A handwritten signature in cursive script that reads "Kendra Abkowitz".

Dr. Kendra Abkowitz

Director of Policy and Planning

Phone: (615)-532-8689

cc: Ron Zurawski, TDEC, TGS
Stephanie A. Williams, TDEC, DNA
James Sutherland, TDEC, DWR
Lisa Hughey, TDEC, DSWM
Lacey Hardin, TDEC, APC