



South Carolina
Department of Transportation

Acting Deputy Secretary for Engineering
Leland D. Colvin, P.E.
Phone: (803) 737-7900 Fax: (803) 737-5053

March 25, 2016

The Honorable Joe McEachern
South Carolina House of Representatives
Post Office Box 375
Columbia, South Carolina 29230

RE: Lake Elizabeth Dam Breach, US 21 - Richland County

Dear Representative McEachern:

Thank you for your letter to Secretary Hall regarding the closure of US 21 at Lake Elizabeth resulting from the October 2015 flood event. Secretary Hall asked that I review the matter and respond back to you directly. We have reviewed your concern and a report is provided below.

The majority of lake dams within the state are regulated by the South Carolina Department of Health and Environmental Control (DHEC). This particular dam is noted as SCDHEC # D0024 and the listed owner has been issued an inspection letter (please see the attached). As a result of this letter, the dam owner will be required to make all necessary repairs as indicated therein or may choose to abandon the dam.

The South Carolina Department of Transportation (SCDOT) is interested in a solution for the damaged lake dam that will allow the road to be repaired and re-opened. The roadway that exists over the breached dam is part of the state road system and is there by easement as such SCDOT does not own or maintain the dam, just the roadway on top of the dam. As stated above, SCDOT will gladly repair the roadway after the dam has been repaired by the dam owner and certified by DHEC or install the necessary drainage and repair the roadway if the dam owner takes the necessary abandonment measures with DHEC to abandon the dam.

Thank you for bringing your request to my attention. I trust that you understand our position in this matter. Please do not hesitate to contact me at 803-737-7900 if I can provide further assistance on this or any other transportation related issue.

Sincerely,

Leland D. Colvin, P.E.
Acting Deputy Secretary for Engineering

LDC:thm
Enclosure

cc: ✓ Nikki Haley, Governor of South Carolina
John Scott, South Carolina State Senate
Torrey Rush, Richland County Council
ec: Christy A. Hall, P.E., Secretary of Transportation
Andrew T. Leaphart, P.E., Chief Engineer for Operations
Bryan Jones, District One Engineering Administrator
File D1/Richland
CTS 3038953



STATE OF SOUTH CAROLINA
COUNTY OF RICHLAND

IN RE: LAKE ELIZABETH DAM
DAM # D-0024

BEFORE THE
DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL

EMERGENCY ORDER

The South Carolina Department of Health and Environmental Control (the Department), pursuant to the South Carolina Dams and Reservoirs Act, S.C. Code Ann. 49-11-110, et seq., and Regulation 72-1, et. seq., hereby issues this Emergency Order to Lake Elizabeth Estates C/O Kenneth E. Murray, for required action related to Dam # D-0024 (Lake Elizabeth Dam) located at Longitude: -80.9874028088, Latitude: 34.1122708686 in Richland County, South Carolina.

FINDINGS OF FACT

1. Lake Elizabeth Dam's embankment impounds Crane Creek.
2. The hazard potential for this dam is classified high, meaning that it is likely that loss of life or serious damage to a home, industrial facility, commercial facility, important public utility, main highway, or railroad would result from its failure.
3. Lake Elizabeth Estates C/O Kenneth E. Murray is the Owner of the Elizabeth Lake Dam pursuant to SECTION 49-11-120.(9), which defines an "Owner" as those who own, control, operate, maintain, manage, or propose to construct a dam or reservoir.
4. The Department has determined through field inspections that the referenced dam appears unsafe and a potential danger to life and/or property. It has been determined that it is necessary that immediate maintenance action be undertaken by the dam owner to prevent failure of the

dam and potential loss of life and/or serious damage to property that would result from its failure.

CONCLUSIONS OF LAW

1. The SC Dams and Reservoirs Safety Act, S.C. Code Ann. 49-11-110, et seq., (2008) and Regulation 72-1, et seq. (2012), authorize South Carolina's dams and reservoirs safety program. The purpose of the Act and Regulation is to protect citizens' health, safety, and welfare by reducing the risk of failure of regulated dams.
2. Under the Act and Regulation an owner at its own expense has responsibility for maintaining a dam, reservoir and appurtenant works in a properly functioning and safe condition throughout the life of the structures.
3. The Dams and Reservoirs Safety Act Regulations, 72-5, states, "The Department has the authority and responsibility to issue orders to dam owners mandating remedial measures necessary to protect life and property from danger imposed by unsafe dams. The remedial measures ordered by the Department shall be made at the dam owner's expense and shall normally include a detailed inspection followed by appropriate repairs."
4. SECTION 49-11-190 of the Act, provides as follows:
 - A. The department immediately shall order remedial measures necessary to protect life or property if the condition of a dam or reservoir is so dangerous to the safety of life or property as not to permit time for the issuance and enforcement of a repair order or passing of imminent floods threaten overtopping erosion or destruction of a dam or reservoir capable of danger to life or property.
 - B. In applying emergency measures the department has the following authority to order the owner to:
 1. lower the water level by releasing water from the reservoir;
 2. empty the reservoir completely;

3. take other steps essential to safeguard life and property.

THEREFORE, IT IS ORDERED, that Lake Elizabeth Estates C/O Kenneth E. Murray, undertake the following actions:

1. Under the supervision of a qualified registered professional engineer licensed to practice in South Carolina, immediately lower the water level or empty the reservoir, and take any other steps essential to safeguard life and property. If necessary, take appropriate action to notify downstream property owner(s) as needed. No later than 5:00 P.M. on October 20, 2015, submit to the Department documentation of compliance with this requirement.
2. Have a detailed inspection conducted, as defined in the Dams and Reservoirs Safety Act and the Dams and Reservoirs Safety Act Regulations, of the dam, reservoir, and all appurtenant works by a qualified registered professional engineer licensed to practice in South Carolina. The results of the detailed inspection, including a plan of action to be taken, shall be submitted by the engineer to the Department no later than 5:00 P.M. on October 30, 2015.

PURSUANT TO THIS ORDER, communications regarding this Order and its requirements shall be addressed or directed to:

Attn: David Graves
SCDHEC
Bureau of Water-Surface Water Monitoring and Dam Safety Section
2600 Bull Street
Columbia, South Carolina 29201
Phone: (803)-429-5341
Fax: (803)-898-3795
Email: GRAVESDA@dhec.sc.gov

IT IS FURTHER ORDERED, that pursuant to S.C. Code Ann. Section 49-11-200, no repair or reconstruction to the dam other than emergency measures to safeguard life or property may be undertaken prior to the owner obtaining written approval of plans and specification from the Department.