

Environmental Protection Division



Safe Dams Program Overview & Proposed Rule Changes

A photograph of an industrial facility, likely a power plant, with several large buildings and a tall cooling tower. The foreground is dominated by turbulent, brown floodwater that has inundated the area. The sky is overcast and grey.

Richard Lake Dam
Southwire Plant

Lewis Hays
October 27, 2015

Department of Natural Resources

Georgia Safe Dams Act



1977	39 lives and millions in property lost when Kelly Barnes Lake Dam broke
1978	Safe Dams Act : To provide for the inspection and permitting of certain dams in order to protect the health, safety and welfare of the citizens of the state by reducing the risk of failure of such dams.
1984	Amended: Changed spillway size criteria and shifted classification from GSWCC to EPD
1990	Amended: Added criteria for local governments to inform EPD and provide information for proposed development below dams



Safe Dams: Regulatory Activities



- Classification
- Inventory/Re-inventory
- Permitting
- Inspections
- Emergency Response

Safe Dams: Classification



What is a Dam?

- Height of at least 25 feet, **OR**
- Storage of at least 100 acre-feet

Exemptions: Federal dams, storage less than 15 acre-feet, or height of less than 6 feet

Purposes: Drinking Water, Recreation, Flood Control, Irrigation, Power Generation and Waste Containment

Category I

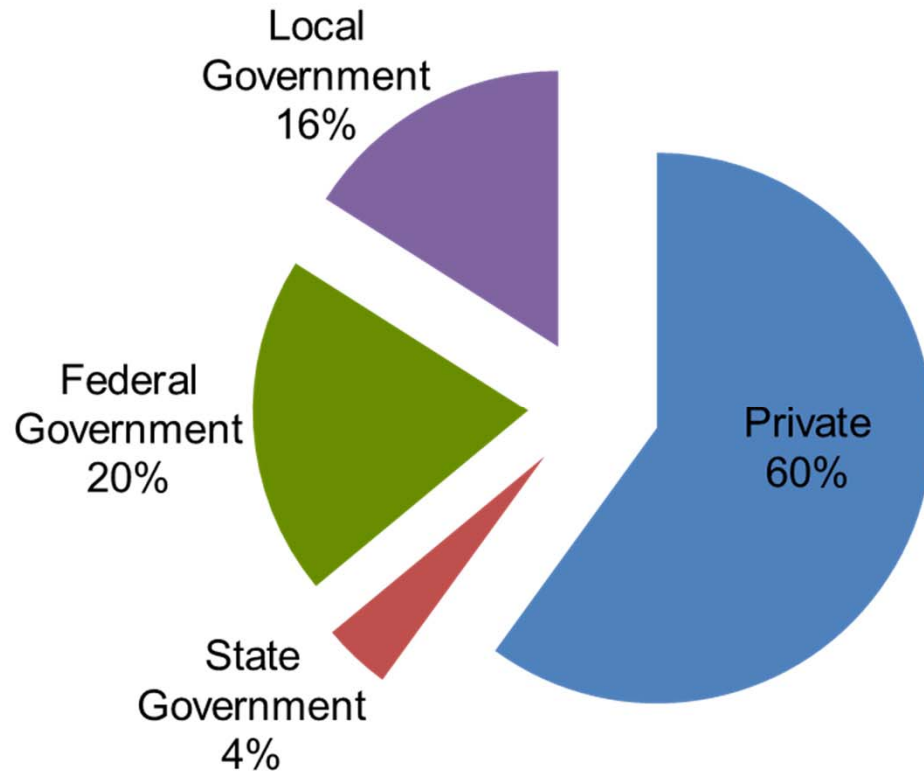
- Meets definition of a dam
- Probable loss of life if dam were to fail

Category II

- Meets definition of a dam
- **NO** probable loss of life if dam were to fail



Safe Dams: Ownership



- 477 Category I Dams
- 3637 Category II Dams
- Dam owners are solely responsible for the safety and liability of their dam and for financing its upkeep, upgrade and repairs.

State Ownership: GSWCC, DOC, DNR Parks, GDOT

Safe Dams: Inventory/Re-Inventory



- CAT II are inventoried every five years
- Review downstream area for development
- Current Backlog: 66 counties outside 5-year window



- Dams identified as “To Be Studied” when classifier identifies potential hazard downstream
- 429 dams on “To Be Studied” List (most require dam break model to determine category)

Safe Dams: Permitting



- Dam Owner must submit complete Permit Application within 180 days after Dam is classified Category I
- Permit Application Includes:
 - Condition Assessment Report
 - Design Documents for Upgrade
 - Permit Application(s)
 - Operation & Maintenance Plan
 - Emergency Action Plan
- Category I Dams Permitted: 251
 - Not Permitted: 226

Safe Dams: Visual Inspection Report



- VIR (Condition Assessment) Prepared when Category II Dam becomes a Category I (part of permit application)
- Outlines Deficiencies with Dam so Owner Can Retain Engineer



- First Step in Bringing Dam into Compliance
- VIR Backlog: 85 Dams

Safe Dams: Category I Inspections

Dam Owners and Operators are responsible for conducting routine inspection and maintenance of dams

- 1978-2010:
 - EPD Annual Inspections
 - Construction Monitoring & Other
- Since 2010:
 - Bi-Annual by EPD staff
 - Quarterly by Owners
 - Construction Monitoring & Other



Safe Dams: Emergency Response



- Serve as Technical Expert on Dams
- Provide on-site CAT I Inspection in Emergency
- Coordinate with Local EMA and GEMA
- Assist with and Retain Emergency Action Plans (EAPs)



Safe Dams: Sustainability Plan



Program Changes:



- Prioritize and expedite existing plan reviews for dam improvements
- Remind counties of requirement to notify dam owners of proposed development
- New applications must be “complete”
 - All plans and engineering reports, VIR, O&M Plan, Emergency Action Plans
- Letter to Cat I dam owners with no VIR yet to do VIR and submit complete application within 180 days
- Increase staffing - Add 4 new engineer positions and 1 classifier position

Safe Dams: Sustainability Plan



Proposed Rule Changes:

- 391-3-8-.03 - Dambreak Modeling: Amend rules to require Dam owners to conduct a dambreak analysis and submit results to EPD if EPD determines that dam may be reclassified from Category II to Category I and modeling is needed to verify
- 391-3-8-.10 - Inspections: Amend rules to require that dam owners inspect their dams periodically and report the findings to EPD
 - Quarterly: All dams. May be performed by owner
 - Every two years: Dams less than 50 feet tall. Must be performed by engineer
 - May be extended to every four years if inspection history is good
 - Every year: Dams greater than or equal to 50 feet tall. Must be performed by engineer

Safe Dams: Sustainability Plan



Proposed Rule Changes:

- 391-3-8-.11 - Emergency Action Plans (EAP): Amend rules to require EAPs as part of the application for a safe dams permit. Existing permittees would have until July 1, 2017 to develop and submit their EAP
- Miscellaneous clean ups

Proposed Schedule:

- Board Briefing October 27, 2015
- Public Notice November 2015
- Public Hearing December 2015
- Board Action January 29, 2016

Safe Dams Program



Questions

Lewis Hays
Watershed Compliance Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, Suite 1152 East
Atlanta, GA 30334

Lewis.hays@dnr.ga.gov

404-463-4953

Department of Natural Resources