

G.S. 150B-21.3A Report for 15A NCAC 02K, DAM SAFETY									
Agency - Environmental Management Commission									
Comment Period - January 19 - March 26, 2024									
Date Submitted to APO - Filled in by RRC staff									
Subchapter	Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Required to Implement or Conform to Federal Regulation [150B-21.3A(d1)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]
SUBCHAPTER 2K - DAM SAFETY	SECTION .0100 - GENERAL PROVISIONS	15A NCAC 02K .0103	PURPOSE	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0104	DEFINITIONS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0105	CLASSIFICATION OF DAMS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
	SECTION .0200 - OBTAINING APPROVAL FOR DAM CONSTRUCTION: REPAIR:OR REMOVAL	15A NCAC 02K .0201	APPLICATIONS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0202	CERTIFICATE OF APPROVAL	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0203	PROFESSIONAL ENGINEER REQUIREMENTS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0204	INVESTIGATIONS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0205	SPILLWAY DESIGN	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0206	CONDUITS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0207	SEEPAGE CONTROL	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0208	STRUCTURAL STABILITY AND SLOPE PROTECTION	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0209	DESIGN LIFE OF A DAM AND RESERVOIR	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary

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		15A NCAC 02K .0210	SEDIMENT CONTROL	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0211	WASTE TREATMENT AND MINE REFUSE DAMS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0212	ADDITIONAL DESIGN REQUIREMENTS	Readopted Eff. December 1, 2018	Necessary	No		Yes	Necessary
		15A NCAC 02K .0213	CONSTRUCTION SCHEDULE	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0214	PROPOSED CHANGES IN DESIGN	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0215	AS-BUILT PLANS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0216	ENGINEER'S CERTIFICATION	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0217	AUTHORITY FOR INSPECTION	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0219	ACCEPTABLE DESIGN: PROCEDURES AND TECHNICAL REFERENCES	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0220	GRANTING OF FINAL APPROVAL	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0221	DELEGATION OF AUTHORITY	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0222	APPLICATION PROCESSING FEES	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0223	DAM HEIGHT AND STORAGE DETERMINATION	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0224	ADDITIONAL REQUIREMENTS FOR DAMS THAT IMPOUND COAL COMBUSTION RESIDUALS	Eff. January 1, 2019	Necessary	No		Yes	Necessary

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	SECTION .0300 - INSPECTIONS: DAM SAFETY ORDERS	15A NCAC 02K .0301	INSPECTION BY THE DEPARTMENT	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0302	DAM SAFETY ORDERS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
	SECTION .0500 - MINIMUM STREAM FLOWS TO MAINTAIN AQUATIC HABITAT	15A NCAC 02K .0501	DEFINITIONS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0502	REQUIRED MINIMUM FLOW FOR DAMS (NOT SMALL HYDRO PROJECTS)	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0503	REQUIRED MINIMUM FLOW FOR SMALL HYDROELECTRIC PROJECTS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary
		15A NCAC 02K .0504	MONITORING OF MINIMUM FLOW REQUIREMENTS	Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. December 23, 2017	Necessary	No		Yes	Necessary

Agency Rule Recommendation	Name	Type of Comment	Comment	Agency Response	RRC Staff
		RRC Determination [150B-21.3A(c)(2)]			

Environmental Management Commission		All Subchapter 02K		American Rivers	
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Public Comment as defined in G.S. 150B-21.3A(a)(5)		"From: American Rivers			
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Sent: March 25, 2024

To: DEQ

Subject: N/A

Dear Environmental Management Commission:

American Rivers appreciates the opportunity to comment during the Environmental Management Commission's comment period on Dam Safety Program rules pursuant to G.S. 150B-21.3A.

American Rivers is a national non-profit organization working to protect and restore streams for the benefit of people, fish, and wildlife. Since 1973, American Rivers has helped protect and restore more than 150,000 miles of rivers through advocacy, science, and on-the-ground projects with local partners. American Rivers has led the nation in the movement to restore rivers through removal of outdated, obsolete, and aging infrastructure.

We appreciate the Division of Energy, Mineral, and Land Resources' (DEMLR) review of its existing rules around dam safety, and we concur with the Division that all the existing Dam Safety Program rules are necessary. These rules set the basis of a system that works to avoid the catastrophic failure of dams in the state. Dam failures have the potential for loss of life, especially around high hazard dams, and the unregulated release of water and materials behind the dam can create an ecological disaster. Further, we would highlight for the division that having this set of rules at a minimum does meet some federal requirements, especially if the state wishes to access federal funding to address high hazard dams. The Federal Emergency Management Agency (FEMA) provides funding to states to support efforts to improve dam safety through the Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program and North Carolina must have an established and effective Dam Safety Program to be eligible for those funds. It is critical that North Carolina has a strong and effective dam safety program that works in the interest of public health and safety while protecting environmental harm.

North Carolina streams host more than 26,000 dams, but the majority of these dams no longer serve a purpose and pose a natural and community hazard. Dams across the state are living on borrowed time. The design life of a concrete structure is generally 30-50 years, and according to the American Society of Civil Engineers, the average age of dams in the U.S. is 57 years. Many dams in North Carolina were built centuries ago. The limited resources of the Dam Safety Program have primarily been focused on the larger structures that pose a higher risk to life and public and private property should they fail. Smaller structures may be inspected infrequently, if at all, creating a threat to public safety especially as storm intensity increases with climate change. While many of these dams are "low hazard," that is not the same as no hazard. Failure of small dams has been known to wreak environmental damage and cause significant downstream damage to things like driveways or roads.

Avoiding catastrophic failure of dams is a priority and unfortunately hazard classifications ignore some of the greatest liabilities that dams pose. Regardless of the size of the dam, the water flowing over and past a dam can create a threat to people. Poorly managed and maintained dams can become an attractive nuisance and people become injured or tragically drown at low-head dams all too frequently. This danger is a growing area of concern as the state becomes more and more urbanized and people are more likely to come in contact with dams. Further, this population growth and development around dams creates hazard creep— development downstream of a dam that was not originally designed to protect people or property. With each new development downstream from a dam, hazard classification needs to be analyzed to ensure that the dam is properly maintained. An improperly classified structure will result in catastrophic consequences should that dam fail.

Dams serve many important purposes in North Carolina from hydropower to flood control or drinking water supply and even recreation. If the dam's purpose is no longer needed or fulfilled, the safest dam is a dam that is no longer in place. Dam removal achieves public safety and environmental improvements by eliminating a hazard from the waterway entirely. For dams that no longer serve a purpose, dam removal is often the best decision. The option of dam removal for any dam safety operation should always be an option.

The Association of State Dam Safety Officials has developed, in cooperation with FEMA, guidance for states in the development and operation of the state Dam Safety Program, the Model State Dam Safety Program Manual. This document offers great guidance to strengthen the effectiveness of a state dam safety program and we encourage North Carolina to adopt as many of the provisions in the manual as is feasible. Specifically, we recommend prioritizing an evaluation of the dams that should be jurisdictional (understanding that NC General Statute has provided some limitation to this), identifying ways that more dams are inspected including an analysis of shifting to owners being responsible for inspections and maintenance, expanding the inventory of dams to include low head dams, implementing a review of hazard classifications to include environmental issues including climate change and attractive nuisance issues, and updating fee structures and capacity need to ensure that owners of deficient dams are taking appropriate steps to mitigate those deficiencies.

The Dam Safety Program has been a strong program within NC DEMLR and has tackled some of the larger environmental and community health issues in the last decade-- specifically around the coal ash ponds of the state. We also appreciate the Division's engagement with the North Carolina Aquatic Connectivity Team and seeking collaborative opportunities to improve public safety through considering dam removal. We look forward to working with the NC Environmental Management Commission and the Division to strengthen the program moving forward.

Sincerely,

Peter Raabe

Southeast Regional Director" We agree