

NOTE: THIS IS A COURTESY COPY OF THIS RULE PROPOSAL. THE OFFICIAL VERSION WILL BE PUBLISHED IN THE APRIL 4, 2005 NEW JERSEY REGISTER. SHOULD THERE BE ANY DISCREPANCIES BETWEEN THIS TEXT AND THE OFFICIAL VERSION OF THE PROPOSAL, THE OFFICIAL VERSION WILL GOVERN.

ENVIRONMENTAL PROTECTION DAM SAFETY

Dam Safety Standards

Proposed Readoption with Amendments: N.J.A.C. 7:20

Authorized By: Bradley M. Campbell, Commissioner,
Department of Environmental Protection

Authority: N.J.S.A. 58:4-1 et seq. and
N.J.S.A. 13:1 D-1 et seq.

Calendar Reference: See Summary below for explanation of exception to
calendar requirement.

DEP Docket Number:

Proposal Number: PRN

Submit written comments by (60 days after publication) to :

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Office of Legal Affairs
New Jersey Department of Environmental Protection
401 East State Street
PO Box 402
Trenton, NJ 08625-0402

The Department of Environmental Protection (Department) requests that commenters submit comments on disk or CD as well as on paper. Submission of a disk or CD is not a requirement. The Department prefers Microsoft Word 6.0 or above. Macintosh™ formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

The proposed readoption with amendments can be viewed or downloaded from the Department's website at <http://www.state.nj.us.dep>.

The agency proposal follows:

Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement under N.J.A.C. 1:30-3.3(a)5.

Pursuant to Executive Order No. 66 (1978) and N.J.S.A. 52:14B-5.1, the Dam Safety Standards rules, N.J.A.C. 7:20, expire on April 28, 2005. The Department has reviewed these rules and has determined them to be necessary, reasonable, and proper for the purpose for which they were originally promulgated. Because the proposed readoption was filed before April 28, 2005, the expiration date was statutorily extended by 180 days, until October 25, 2005. See N.J.S.A. 52:14B-5.1c.

The Dam Safety Standards implement the Safe Dam Act, N.J.S.A. 58:4-1 et seq. and govern the design, construction, inspection, operation, maintenance, modifications and repair of dams in New Jersey which raise the water height of a stream by more than five feet. Certain dams in the pinelands area are exempt from these rules so long as they do not pose a security or safety concern (see N.J.S.A. 58:4-1). The primary objective of these rules is to ensure the protection of areas below dams from the consequences of their failure. Dams and their appurtenant structures are required to be inspected and maintained on a regular basis in order to determine if repairs or modifications are necessary to protect life and property.

The Department regulates dams based upon their hazard classification, as identified in N.J.A.C. 7:20-1.8 and size. Hazard potential is divided into three classes: Class I, high hazard; Class II, significant hazard; and Class III, low hazard. The hazards pertain to the potential harm to human beings or the property in areas downstream of any dam. The hazard classifications dictate the design requirements which applicants must meet: the higher the hazard the more stringent the design criteria. These rules also establish Class IV dams, which are defined as small dams. The construction of Class IV dams do not need to obtain a permit for construction but must be designed in accordance with the Dam Safety Standards.

The Department is proposing amendments that correct and update agency names and that reduce the number of plans and sets of specifications that are required to be submitted with a permit application from five sets to two sets.

Social Impact

The rules proposed for re adoption will have a positive social impact on the people of the State by continuing to protect the public from the consequences of dam failures. The dam safety standards will continue to prevent property damage by requiring dam owners and/or operators to meet specific design criteria and perform periodic dam inspections. The rules proposed for re adoption will ensure that proposed and existing dams continue to provide water for drinking, flood protection, irrigation, swimming, fishing and boating.

Economic Impact

Dam failures which result in the loss of water supply, wildlife habitat, and recreational facilities and which can cause considerable flood damage have a major

negative economic impact on the economy of New Jersey. The resultant costs associated with failure of a single large dam, based on documented past occurrences, can exceed one billion dollars. This figure does not include public costs related to rescue, relief and emergency preparedness nor does it include the value of the loss of human life or the costs associated with lost wages, sales, and production.

The existing rules have had a positive economic impact on the economy of the State by providing a safe environment downstream of water dependent dam structures essential for the needs and economic well-being of the State's residents. The rules proposed for re-adoption will continue to provide the safety needed for a sound social and business environment and will thus have a positive economic impact.

Environmental Impact

The rules proposed for re-adoption will continue to prohibit a dam owner or operator from allowing dam deterioration which could lead to dam failure. The existing rules have had a positive impact by compelling the maintenance of dams which create lakes and reservoirs therefore preserving existing wetlands, recreation, and fish and wildlife habitat.

Since construction of a new dam may potentially be disruptive to a riverine environment, the Department may require the applicant to submit an Environmental Impact Statement and will consider the environmental impacts in the permit application. The statement or application is carefully reviewed by the staff and additional mitigation is recommended where feasible. In developing the existing rules, the Department has balanced the need to protect the public from dam failures while protecting the environment from the negative effects of construction and operation of dam projects.

Federal Standards Statement

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), require State agencies which adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. N.J.A.C. 7:20 is not promulgated under the authority of, or in order to implement, comply with or participate in any program established under Federal law or under a State statute that incorporates or refers to Federal law, Federal standards or Federal requirements. Accordingly, Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. do not require a Federal standards analysis.

Jobs Impact

The rules proposed for re adoption will have a positive impact on jobs. The rules govern the construction, operation and maintenance of dams. In accordance with the rules, dam owners are required to inspect, maintain and occasionally make repairs to dams. This activity will result in a number of jobs in the engineering and construction industries.

Agriculture Industry Impact

In accordance with P.L. 1998, c. 48, amending the Right to Farm Act, the Department has reviewed the rules proposed for re adoption with amendments and has determined that these rules have the potential for positive impact upon the agriculture industry. Certain farm ponds with dams that exist for water supply to agricultural lands are regulated by the Dam Safety Standards. The rules proposed for re adoption do not impose any new requirements on dam owners. The re adoption of these rules will assure the continued maintenance and proper operation of these dams to protect the lives and

property downstream from the dams and to assure the continued existence of the dams and water supply sources.

Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping and other compliance requirements that the rules proposed for readoption with amendments would impose on small businesses. The Regulatory Flexibility Act defines the term “small business” as “any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees.”

These rules apply to owners and operators of dams. It is estimated that of the total number of approximately 1,600 dam owners and operators affected by these rules, approximately 50 are "small business" as defined in the New Jersey Regulatory Flexibility Act, N.J.A.C. 52:4B-16 et seq. In order to comply with the rules, the small businesses will have to comply with the requirements for a dam permit-by-rule; submit a design report, construction drawings and specifications; comply with construction quality control requirements; and conduct periodic dam safety inspections, operation and maintenance and emergency action planning. In order to comply with the rules, the small businesses will likely need to engage the services of professional engineers. It is expected that the costs for performing inspections for small business owners or operators could range from \$500.00 to \$5,000.00.

In developing these rules, the Department has balanced the need to protect the environment, property and life against the economic impact of the rules on owners and operators and has determined that to minimize the impact of the rules on "small business"

owners and operators would endanger the public health and safety and, therefore, no exemption from coverage is provided.

Smart Growth Impact

Executive Order No. 4 (2002) requires State agencies that adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the proposed rule on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan). The Department has evaluated this rulemaking to determine the nature and extent of the impact of the rules proposed for readoption with amendments on smart growth and the implementation of the State plan.

Infrastructure development with respect to construction of stormwater management facilities and water supply reservoirs is regulated under land use programs (specifically, freshwater wetlands and flood hazard control). The Dam Safety Standards come into play only after the facilities are approved for construction. Therefore, the rules proposed for readoption will not have an impact on implementation of the State Plan or the achievement of smart growth.

Full text of the proposed readoption may be found in the New Jersey Administrative Code at N.J.A.C. 7:20.

Full text of the proposed amendments follows (additions indicated in boldface **thus**; deletions indicated by brackets [thus]):

SUBCHAPTER 1. APPLICATION PROCEDURE; DESIGN CRITERIA FOR DAM CONSTRUCTION; DAM INSPECTION PROCEDURE

N.J.A.C. 7:20-1.3 Permit-by-rule

(a) All dams must be designed, constructed, operated maintained, or removed in compliance with the rules in this subchapter except as set forth below:

1. Owners and operators of Class IV dams (see N.J.A.C. 7:20-1.8, Dam classification) are not required to file documents with nor obtain a permit from the Department, but must meet the following requirements, in addition to those set forth elsewhere in this subchapter:

i. Design must be based upon a spillway design storm that results in rainfall of 50 percent greater than a 24- hour, 100-year, Type III storm (Later technology adopted by the United States Department of Agriculture, [Soil] Natural Resources Conservation Service may be substituted for the use of the Type III storm.); and

ii. - iv. (No change.)

2. Owners and operators of Class III agricultural impoundments, meaning any impoundment used for fish and wildlife, fire control or livestock or crop production and maintenance, where the drainage area is less than one-half square mile in extent, must meet only the following requirements.

i. (No change.)

ii. Design and construction must be supervised by the United States Department of Agriculture, [Soil] **Natural Resources** Conservation Service.

(b) - (c). (No change.)

N.J.A.C. 7:20-1.4 General requirements and prohibitions

(a) - (c). (No change.)

(d) No person may construct a dam in any waterway of this State which is a runway for migratory fish, without installing a fish ladder or other approved structure to permit the fish to pass the dam in either direction (see N.J.S.A. 23:5-29.1).

1. (No change.)

2. The Department will determine whether a stream is currently a runway for migratory fish, during the review of the dam permit application. Applicants should consult the Division of Fish[, Game] and Wildlife in this matter prior to finalizing the application.

(e) - (n). (No change.)

N.J.A.C. 7:20-1.7 Application stage

- (a) The application shall be on forms specified and supplied by the Department and must be accompanied by two copies of the final design report, [and] construction specifications and [five sets of] all plans, drawings, **and** designs [and specifications]. Upon the written request of the applicant, the Department may waive certain requirements for documentation in the application stage set forth at (b) to (g) below for a permit to modify or repair an existing dam.

- (b) The application shall include a Final Design Report, which must contain the following:

1. - 2. (No change.)

3. Structural and hydraulic design studies and calculations. Structural, hydraulic and hydrologic design procedures should be used, as established

by one of the following: the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, the U.S. [Soil] **Natural Resources** Conservation Service and other procedures universally accepted as sound engineering practice.

(c) - (i) (No change.)

N.J.A.C. 7:20-1.9 Design criteria

(a) The minimum design storm used to calculate required spillway capacity must be determined according to the following table:

<u>Hazard</u>	<u>Spillway Design Storm (SDS)</u>
Class I	PMP
Class II	One-half PMP
Class III	24 hour 100 year frequency, Type III storm ¹
Class IV	24 hour 100 year frequency, Type III storm plus 50% ¹

¹Any later technology adopted by the U.S. Department of Agriculture, [Soil] **Natural Resources** Conservation Service may be substituted for the use of the Type III storm.

(b) - (o) (No change.)

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Based on consultation with staff, I hereby certify that the above statements, including the Federal Standards Statement addressing the requirements of Executive Order 27 (1994) (p. 5) permit the public to understand accurately and plainly the purposes and expected consequences of this proposed readoption. I hereby authorize this proposal.

Date

Bradley M. Campbell
Commissioner