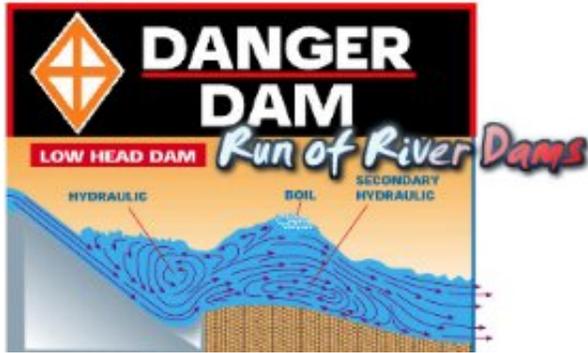




## Sign and Buoy Guidelines for Run-of-the-River Dams



### Introduction

Act 91 of 1998 (Act of June 18, 1998 (P.L. 702, No. 91)) went into effect on January 1, 1999. Governor Ridge signed House Bill 10 into law in June 1998.

This law amends the Fish and Boat Code and applies to owners of existing run-of-the-river dams and permittees for the construction or installation of new run-of-the-river dams. It requires them to mark the areas above and below the dams and on the banks immediately adjacent to the dams with signs and buoys to warn the swimming, fishing and boating public of the hazards posed by the dam.

Under this law, the owners of dams identified by the Department of Environmental Protection (DEP) as meeting the statutory definition of a "run-of-the-river" dam must mark the dam and its environs with signs and buoys. The design and content of these signs and buoys is determined by the Pennsylvania Fish and Boat Commission (PFBC), after consultation with DEP. The signs are intended to warn the swimming, fishing and boating public of the hazards posed by the dam. Act 1998-91 provides that the PFBC shall publish the guidelines establishing the size, location and content of the signs and buoys as a notice in the Pennsylvania Bulletin and may from time-to-time modify them as circumstances require.

On February 27, 1999, the PFBC published a notice in the Pennsylvania Bulletin (29 Pa.B. 1137) containing the proposed guidelines for the contents and location of signs to mark run-of-the-river dam. As a result of the comments received in response to these proposed guidelines, the PFBC, in consultation with DEP, modified them to provide different requirements for marking smaller dams. These modified requirements were sent to each owner of a run-of-the-river dam identified by DEP under Act 91, with a further invitation for comments and suggestions to be submitted on or before June 15, 1999.

The PFBC received numerous comments focusing on the issue of whether an exclusion zone should be required for smaller dams. Many of the

comments related to Benton Dam in Columbia County.

The PFBC staff have reviewed and considered the comments. We believe it is clear that Act 1998-91 was intended to, and did, give the PFBC, in consultation with DEP, the authority to require marking of enforceable exclusion zones around run-of-the-river dams. The Act states that the Commission will establish requirements for the content of the signs, and subsection (h)(3) (30 Pa.C.S. § 3510(h)(3)) establishes a penalty for persons who enter “an exclusion zone marked under the provisions of this section.”

The more difficult question is whether Act 1998-91 allows for the possibility of marking dams with signs that do not create an exclusion zone. Although marking an exclusion zone is clearly referred to in the Act, the PFBC has broad discretion, within the intent of the law, to specify the contents of the warning signs and buoys. If the signs merely warn about the dangers of the dam but do not create an exclusion zone, then no exclusion zone will exist around the dam in question. In promulgating these final guidelines, the PFBC staff have decided to give the owners of certain small run-of-the-river dams the option to place warning signs that do not create an exclusion zone in limited circumstances. This change to the proposed guidelines addresses many of the comments and concerns expressed about the original guidelines.

### **Purpose**

The purpose of these guidelines is to provide statewide guidance for marking of run-of-the-river dams and the design of signs and buoys and their placement and maintenance. Compliance with the standards and guidelines established by the Pennsylvania Fish and Boat Commission is required to meet the requirements of Act 1998-91 and to provide effective and efficient visual aids (signs and buoys) that meet safety standards at these lowhead dams.

### **Required Signs**

1. Owners of dams 200 feet or more in length must purchase, post and maintain a pair of exclusion zone signs on each side of their dams - one pair facing upstream and one pair facing downstream. Owners will post these signs so that individuals walking, boating, swimming, wading or fishing near the dam are aware of the dangers and informed of the size of the exclusion zone around the dam. The signs will be 4' x 4' and will create an exclusion zone by displaying wording prohibiting boating, swimming and wading at the

### **Exclusion Signs**

Upstream 4' x 4' Exclusion Signs

UPSTREAM DAM  
WARNING SIGN  
48 inches x 48 inches  
Attachment A



### Downstream 4' x 4' Signs

DOWNSTREAM DAM  
WARNING SIGN  
48 inches x 48 inches  
Attachment B



dam on a white reflective background. The exclusion zone ordinarily will extend 200' upstream from the dam breast and 100' downstream from the boil of these dams. The PFBC suggests that these signs be constructed of .080 gauge aluminum, but alternate materials (wood, plastic, etc.) are acceptable as long as the signs meet the size and text requirements. Owners will display and maintain these signs 365 days a year unless the PFBC approves an alternative display schedule based on exigent or unusual circumstances.

2. Owners of dams less than 200 feet in length must purchase, post and maintain at least two general warning signs on their dams - one facing upstream and one facing downstream. Owners will post these signs so that individuals walking, boating, swimming, wading or fishing near the dam are made aware of the dangers of activities in the immediate vicinity of the dam. The signs will be at least 2' x 2'. The PFBC suggests that these signs be constructed of .080 gauge aluminum, but alternate materials (wood, plastic, etc.) are acceptable as long as the signs meet the size and text requirements set forth below. Owners will display and maintain these signs 365 days a year.

a. Text Requirements for Exclusion Zone Signs on Dams. Except in special cases described in paragraph (b), below, the signs will establish an exclusion zone in the area around the dam. The suggested text for the exclusion zone signs on the dam are the same as those for the upstream and downstream exclusion zone signs for larger dams except that the size of the exclusion zone may vary for these smaller dams. The sign will contain wording that creates an exclusion zone by prohibiting boating, swimming and wading at or near the dam. The size of the exclusion zone upstream and downstream of these smaller dams ordinarily should be 100' upstream from the dam breast and 50' downstream from the boil, but the PFBC may adjust the size of the exclusion zone or the signage requirements on application of the dam owner or by its own order based on the nature of the dam. Owners will display and maintain these signs 365 days a year unless the PFBC approves an alternative display schedule based on exigent or unusual circumstances.

### Warning Sign

b. Text Required for Warning Zone Signs. Upon submission of a written statement from the owner of a dam less than 200 feet in length, placement of warning signs in lieu of exclusion zone signs may be considered. Use of warning signs, in lieu of exclusion signs, is only appropriate where the dam is under the entire control of a single owner or, in the case, of multiple owners, all owners



agree to the use of such signs and certify in writing that they agree and will assume responsibility. In no case will warning signs be posted on one part of a dam and exclusion zone signs posted on another part of the same dam. This will cause confusion for the public and will raise issues about liability and responsibility. The warning sign will contain wording that creates a warning zone by warning all persons of the dangers boating, swimming and wading at or near the dam. Owners may place warning signs in lieu of exclusion zone signs when they determine that the areas at and near the dam are sufficiently safe and controlled that it is unnecessary to exclude the public from these areas. The owner must submit a certification to the PFBC that such a determination has been made. The certification must be provided on forms furnished by the PFBC [Bureau of Boating & Education, 717-705-7841] and must state that the owner shall assume responsibility and liability for all the consequences of such a determination.

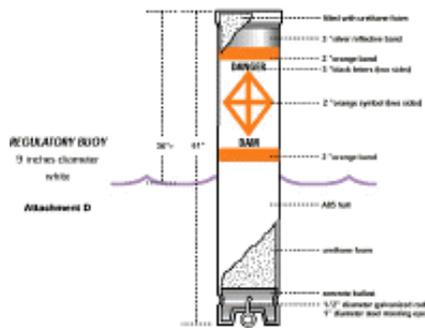
### Vinyl or Paper Signs



3. Vinyl or water resistant paper 11" x 14" signs may be posted along pathways leading to or banks within the exclusion area to provide additional warning to the restrictions at the dam. Vinyl or water resistant 11" x 14" paper signs may be posted along pathways leading to or banks within the warning zones to provide additional warning of conditions at the dam. These signs are available through the Pennsylvania Fish and Boat Commission at a cost of \$2.00 per sign.

### Buoys

### Buoys



1. The owners of dams 200' or more in length are required to install buoys on the upstream and downstream side of dams when the normal water low level is 3 feet or greater in depth.
2. Buoys will be installed and maintained at a minimum of 200' on the upstream side. The downstream buoys must be installed at least 100' downstream of the maximum boil line. Exception to this rule requires specific approval of the Pennsylvania Fish and Boat Commission.
3. Buoys must be spaced evenly, not more than one hundred fifty feet (150') apart.
4. All buoys, symbols and features will meet the requirements of the U.S. Aids to Navigation system. All buoys will have an orange "diamond w/cross" symbol meaning "Boats Keep Out" and the words "Danger Dam." Buoys are NOT required for dams less than 200 feet in length but may be placed at the discretion of the dam owner or permittee.
5. Buoys are NOT required for dams less than 200' in length, but may be placed at the discretion of the dam owner.
6. Owners and permittees must submit a completed *Application for Permit to Install Floating Structures and Private Aids to Navigation -- Form PFBC-277* to the PFBC for review and approval. This permit may give some flexibility regarding the location and number of buoys and installation and removal dates. Owners and permittees should read the entire permit application and regulations on the reverse side of the form before submitting it to the PFBC for review. The dam owner should read the entire permit application and regulations on the reverse side of the form before submitting it to the Commission for review.