

## E.34. Ohio



**FEMA**



## OHIO DAM SAFETY LAWS AND REGULATIONS 2007

### Citation

Ohio Dam Safety Laws are found in the Ohio Revised Code – (ORC) Title XV (enacted Oct. 10, 1963 and last amended March 2007. Administrative rules enacted by the Division of Water of the Department of Natural Resources supplement the permit and inspection laws and reflect Division of Water policy and procedures in carrying out the intent of the law (enacted April 15, 1972, revised Oct. 15, 1981, December 9, 1999, and May 15, 2006).

### History

Construction of dams in Ohio dates back to the early 1800s when reservoirs were built to supply water to a state canal system used for agricultural trade and commerce.

Legislation encouraging construction of dams in response to droughts was enacted in 1937, but the forerunner of Ohio's current dam safety laws was enacted in 1963, when the Ohio Department of Natural Resources Division of Water became involved in dam safety. This law required construction permits for new dams.

In 1969, following the failure of several dams in northeast Ohio, the General Assembly revised the law to include periodic inspections of existing structures.

### Definitions/Dam Classification

*Dams* are defined as any artificial barrier together with any appurtenant works, which either does or may impound water or other liquefied material. Upground reservoirs and lagoons are considered to be dams. A fill or structure intended solely for highway or railroad use that does not permanently impound water or other liquefied material as determined by the chief is not considered a dam (Administrative Rules Chapter 3-1501:21-3-01[E]).

*Dam height* means the vertical dimension as measured from the elevation of the natural stream bed, watercourse, or lowest ground elevation at the downstream or outside toe of a dam to the elevation of the top of the dam (Administrative Rules Chapter 3-1501:21-3-01[I]).

Classification criteria for dams are found in the Administrative Rules Chapter 13-1501:21-13-01.

(1) A dam shall be placed in *class I* when sudden failure of the dam would result in probable loss of human life or structural collapse of at least one residence or one commercial or industrial business. Dams having a total storage volume greater than five thousand acre-feet or a height of greater than sixty feet shall be placed in class I.

(2) Dams having a total storage volume greater than five hundred acre-feet or a height of greater than forty feet shall be placed in *class II*. A dam shall be placed in class II when failure of the dam would result in at least one of the following conditions, but loss of human life is not probable-

(a) Disruption of a public water supply or wastewater treatment facility, release of

- health hazardous industrial or commercial waste, or other health hazards.
- (b) Flooding of residential, commercial, industrial, or publicly owned structures.
- (c) Flooding of high-value property.
- (d) Damage or disruption to major roads including but not limited to interstate and state highways, and the only access to residential or other critical areas such as hospitals, nursing homes, or correctional facilities as determined by the chief.
- (e) Damage or disruption to railroads, or public utilities.
- (f) Damage to downstream class I, II or III dams or levees, or other dams or levees of high value. Damage to dams or levees can include, but is not limited to, overtopping of the structure.

(3) Dams having a height of greater than twenty-five feet or a total storage volume greater than fifty acre-feet shall be placed in *class III*. A dam shall be placed in class III when sudden failure of the dam would result in at least one of the following conditions, but loss of human life is not probable.

- (a) Property losses including but not limited to rural buildings not otherwise described in paragraph (A) of this rule, and class IV dams and levees not otherwise listed as high-value property in paragraph (A) of this rule. At the request of the dam owner, the chief may exempt dams from the criterion of this paragraph if the dam owner owns the potentially affected property.
- (b) Damage or disruption to local roads including but not limited to roads not otherwise listed as major roads in paragraph (A) of this rule.

(4) When sudden failure of the dam would result in property losses restricted mainly to the dam and rural lands, and loss of human life is not probable, the dam may be placed in *class IV*. Dams which are twenty-five feet or less in height and have a total storage volume of fifty acre-feet or less may be placed in class IV. Class IV dams are exempt from the permit requirements of section 1521.06 of the Revised Code pursuant to paragraph (C) of rule 1501:21-19-01 of the Administrative Code.

(B) All pertinent information including any unusual circumstances shall be considered by the chief in establishing an appropriate classification for a dam. Probable future development of the area downstream from the dam that would be affected by its failure shall be considered. Completed downstream hazard mitigation such as acquisition, removal or protection of downstream property may also be considered. However, the above criteria shall in no way preclude the chief's requirement of greater safety in the interest of life, health, or property.

## **Design Criteria**

### **Hydrologic:**

The magnitude of the design flood for each dam shall be set by the chief and determined from actual streamflow and flood frequency records or from synthetic hydrologic criteria based on current publications prepared by the division, the United States army corps of engineers, the United States geologic survey, the national oceanic and atmospheric administration, or others acceptable to the chief.

The minimum design flood will be:

- (1) For class I dams, the probable maximum flood or the critical flood;
- (2) For class II dams, fifty percent of the probable maximum flood or the critical flood; and,
- (3) For class III dams, twenty-five percent of the probable maximum flood or the critical flood.

### **Seismic:**

Seismic design criteria for dams are included in the general design requirements of paragraph (A) of Administrative Rule 1501:21-13-08.

(A) The safety factors for the various elements of the dam shall conform to good engineering practice as approved by the chief. The safety factors and the design standards that are used by the applicant shall agree with the approved design assumptions.

### **Jurisdiction/Powers of Department**

Sections 1521.06-064 of the ORC place the authority for implementation of the dam safety laws within the Division of Water of the Department of Natural Resources.

Section 1521.06 requires that persons or governmental agencies desiring to construct certain dams must obtain a construction permit from the chief of the Division of Water. The Chief has the power to approve or disapprove an application.

Sections 119.01 to 119.13 of the ORC give the Chief of the Division of Water the power to prescribe rules and regulations.

Section 1521.062 of the ORC gives the Chief the power to call for remedial measures, as he deems necessary to safeguard life, health, or property.

If the owner fails to perform such repairs, maintenance, remedial measures, or other measures within the required time period as may have been ordered by the chief, the chief has the right to cite noncompliance and seek judicial measures to have the structure removed or the deficiencies corrected at the expense of the owner. (Administrative Rules 1501:21-21-05).

### **Permit/Approval Process**

Before a construction permit may be issued, three copies of the plans and specifications, including a detailed cost estimate, for the proposed construction, prepared by a registered professional engineer, together with a fee (graduated scale – based on the estimated cost of construction) and the bond or other security required by section 1521.061 of the ORC, shall be filed with the chief. The chief shall within 30 days from the date of the receipt of the application, fee, and bond or other security, issue or deny a permit for the construction or may issue a permit conditioned upon the making of such changes in the plans and specifications for the construction as the chief considers advisable if the chief ~~he~~ determines that the construction of the proposed dam would endanger life, health, or property. If the permit is denied, the bond or other security is returned to the applicant.

After the construction is completed in accordance with the terms of the permit and the plans and specifications, the chief will approve the construction. One year later, if no evidence of non-compliance is evident, the bond is released (ORC 1521.06). As required by Section 1521.063 of the ORC, the owner is then required to pay an annual fee to the Division based on the classification and size of the dam. Owners of pre-permit, Class I, II, and III dams must also pay an annual fee.

Required spillway design standards are found in the Administrative Rules Section 1501:21-13-03 through -05.

Dam construction, including remedial work, is to be paid for by the owner (Administrative Rules 1501:21-21-05).

### **Repair, Improvement, Alteration, or Removal**

Before commencing the repair, improvement, alteration, or removal of a dam or levee, the owner shall file an application including plans, specifications, and other required information, and shall secure written approval of the application by the Chief. Emergency actions by the owner required to safeguard life, health, or property are exempt from this requirement (ORC 1521.062 F).

### **Fees**

Fees on a graduated scale, based on estimated construction costs, are required to obtain construction permits.

Owners of pre-permit, Class I, II, and III dams must also pay an annual fee based on dam classification and size.

### **Inspection Process**

Pursuant to Section 1521.062 of the ORC, periodic inspections will be made by the chief of all class I, II, and III dams to ensure that continued operation and use of the dam does not constitute a hazard to life, health, or property. The chief may make, as deemed necessary, periodic inspections of Class IV dams (Administrative Rules 1501:21-21-01). Section 1521.064 of the ORC provides for the exemption of certain dams from inspection if they meet specific criteria established by the Division of Water. The Rules do not specify any inspection fees to be paid by the owner.

An operation, maintenance and inspection manual is required for all Class I, II and III dams. The manual will include a program for regular inspection, maintenance, and monitoring by the owner or operator (Administrative Rules 1501:21-15-06).

An emergency action plan is required for all class I, II and III structures. The emergency action plan for all class I structures shall include but not be limited to an inundation map of the critical routing reach. An inundation map may also be required for class II and III dams as designated by the chief. The required detail of this map depends upon the complexity of the downstream hazard and shall be acceptable to the chief. (Administrative Rule 1501:21-15-07)

The owner is required to have a licensed, professional engineer perform all inspections

(Administrative Rules 1501-21-3-02).

The chief may make inspections during construction as deemed necessary to insure that the structure is being built in compliance with the approved plans and specifications (Administrative Rules 1501:21-17-01).

### **Frequency of Inspections**

<i>Hazard Classification</i>	<i>Inspection Cycle</i>
High	Not to exceed 5 years
Significant	Not to exceed 5 years
Low	Not to exceed 5 years

### **Violations/Penalties**

If the owner fails to perform repairs, maintenance, remedial measures, or other measures as mandated by the chief, the chief shall so notify the owner of the noncompliance and of the chief's intention to remove or correct the unsafe structure, at the expense of the owner, pursuant to section 1521.062 of the ORC. Such cost is a lien upon such lands from the date of entry and shall be collected as other taxes and returned to the division (Administrative Rules 1501:21-21-05). Section 1521.99 of the ORC establishes penalties for violations of Section 1521.06 and 1521.062.

### **Emergencies**

The chief of the Division of Water is empowered to take charge of a dam safety emergency to protect life, property, and health. If the condition of any dam is found, in the judgment of the chief, to be so dangerous to the safety of life, health, or property as not to permit time for the issuance and enforcement of an order relative to repair, maintenance, or operation, the chief shall employ any of the following remedial means necessary to protect life, health, and property.

- (1) Lower the water level of the lake or reservoir by releasing water;
- (2) Completely drain the lake or reservoir;
- (3) Take such other measures or actions as the chief considers necessary to safeguard life, health, and property.

The chief shall continue in full charge and control of the dam or levee until the structure is rendered safe. The cost of the remedy shall be recoverable from the owner of the structure by appropriate action in a court of competent jurisdiction.

### **Liability**

Pursuant to the provisions of section 1521.062 of the ORC, the owner of a dam shall be responsible for the continued safe operation and use of the structure so that it does not constitute a hazard to life, health, or property.

In the interest of safeguarding life, health, or property, the chief may require the owner to prepare a written manual detailing the operation, maintenance, and inspection procedures necessary for the continued safe operation of the dam (Administrative Rules 1501:21-21-04).

## Oversight

All orders of the chief are subject to appeal pursuant to sections 1521.06, -.062, and 119.01 to 119.13 of the ORC. Filing of an appeal does not automatically stay the effectiveness of the orders of the chief (Administrative Rules 1501:21-23-01).

## Miscellaneous

The following dams are exempt from the construction permit requirement (Administrative Rules 1501:21-19-01):

- Dams constructed under Chapter 1513 ORC (coal mine impoundments).
- Dams, regardless of height, which have a storage capacity of not more than 15 acre-feet.
- Dams less than 10 feet in height, with a storage capacity of not more than 50 acre-feet.
- Dams designed and constructed by the United States Army Corps of Engineers.
- Dams constructed by the state of Ohio, Department of Natural Resources.
- Dams placed by the chief in class IV under rules 1501:21-13-01 of the Administrative Rules.
- Modifications or repairs to existing dams provided that the modifications or repairs do not constitute an enlargement to the structure as defined under rule 1501:21-3-01 of the Administrative Rules.

## Other Publications

- *An Operation, Maintenance, and Inspection Manual*
- *Guidelines for Developing EAPs and Operation and Maintenance Manuals*
- Dam Safety Related Fact Sheets (available on Ohio Web Page): *Lake Drains, Rodent Control, Trees and Brush, Classification, Failures, Seepage, Concrete Repair Techniques, Inspection of Concrete Structures, Construction Permits for Dams, Design and Maintenance of Trashracks, Probable Maximum Flood, Annual Fee, Construction Permits for Levees, Open Channel Spillways (Earth and Rock), Inspection Exemption, Embankment Instabilities, Ground Cover, Open Channel Spillways (Concrete Chutes and Weirs), Outlet Erosion Control Structures, Upstream Slope Protection, Spillway Conduit System Problems, Problems with Concrete Materials, Problems with Metal Materials, Problems with Plastic Materials, Critical Flood Guidelines, Remediation Alternatives.*
- Dam-and Levee Construction Related Forms:  
*Application for a Permit to Construct a Dam, Dike or Levee in the State of Ohio*  
*Instructions for Application for a Permit to Construct a Dam Dike or Levee in the State of Ohio*  
*Preliminary Design Report Requirements 1501:21-05-02*  
*Revised Construction Permit Filing Fees*  
*Performance Bond*

**State Web Site:** <http://www.dnr.state.oh.us/water>

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# Ohio Department of Natural Resources Division of Water Fact Sheet

Fact Sheet 95-37

## Dam Safety: Probable Maximum Flood

Uncontrolled flood waters are one of the most powerful and destructive forces in nature. Dams that are not designed to withstand major storms may be destroyed by them, increasing flood damage downstream. This damage is too often catastrophic. In order to protect lives and property downstream, the Ohio Administrative Code requires that dams be constructed to safely handle an appropriate percentage of the Probable Maximum Flood (PMF). This percentage varies according to the height of the dam, size of the impoundment, and extent and severity of damage possible upon failure. The requirements established in Ohio are similar to those used in other states, and historical records of significant storms and dam failures this century verify that the design criteria are reasonable.

### Definitions

The Probable Maximum Precipitation (PMP) is the greatest depth (amount) of precipitation, for a given storm duration, that is theoretically possible for a particular area and geographic location.

The Probable Maximum Flood (PMF) is the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

### Historical Storms in Ohio and Dam Failures

Storms which have caused severe flooding and included precipitation amounts that reached a significant percentage of the PMP have occurred in Ohio this century. Flood waters from these storms caused the failure of dams and other structures. Many dam failures are considered disasters because they cause great harm, damage, or serious and sudden misfortune. Because of the rapid and unexpected manner in which dam failures can occur, they are judged to be as serious as earthquakes and tornadoes.

A storm approaching two thirds of the PMP struck north-central Ohio in the summer of 1969. Some small areas within the region were inundated with 14 inches of rain in 12 hours. Three large dams and many small farm-pond dams failed. Almost all the failures were caused by water overtopping the dams.

In 1990, severe flash floods destroyed eighty residences near the town of Shadyside in southeast Ohio. Twenty six people died. In this instance, the amount of precipitation did not constitute a high percentage of the PMP, yet the flood waters which resulted were deep and powerful.

The potential for damage due to dam failures is increasing along with the increase of residential and commercial development downstream of dams. In many cases, existing dams will need to be modified to keep downstream areas safe from disaster.

### Recent Notable U.S. Dam Failures

Year	Name	Location	Deaths	Damage
1972	Buffalo Creek Dam	West Virginia	125	\$400 million
1972	Canyon Lake Dam	South Dakota	139	\$60 million
1976	Teton Dam	Idaho	11	\$400 million
1977	Taccoa Falls Dam	Georgia	39	\$30 million
1982	Lawn Lake Dam	Colorado	3	\$21 million

### Classification of Ohio Dams

Dams in Ohio are divided into four classes based on the storage volume of the impoundment, dam height and potential downstream hazard (how far downstream the residences are, etc.). These criteria were chosen because they affect the extent and severity of downstream damage possible upon failure. The percentage of the PMF that a dam must be designed to withstand depends upon its classification. Dams that could cause loss of human life if they fail must be designed to handle 100 percent of the PMF. More details about the classification system can be found in the Ohio Administrative Code and Fact Sheet No. 94-29.

### Development of the PMP

Scientists use both meteorological methods and historical records to determine the greatest amount of precipitation which is theoretically possible within a region. The historical data consists of point precipitation amounts measured at rain gages throughout the region being studied, or a region with very similar meteorologic and topographic characteristics. These rainfall data are subsequently maximized through "moisture maximization" and other numerical methods. Moisture maximization

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is a process in which the maximum possible atmospheric moisture for a region is applied to rainfall data from a historic storm. This process increases the rainfall depths, bringing them closer to their potential maximum.

Probable maximum precipitation amounts vary slightly throughout Ohio because of variations in topography and meteorology. The PMP is greatest in the southern portion of the state. Furthermore, not all storms have the same duration. Using the methods mentioned above, the PMP has been determined for different storm periods, generally ranging from six to seventy two hours.

**Development of the PMF**

The Probable Maximum Flood is the flood which is a direct result of the Probable Maximum Precipitation. However, drainage areas with the same PMP may have different PMFs. This is possible because the amount of flooding which results from a given rainfall amount

depends upon the characteristics of the drainage basin. For this reason, the PMF, not the PMP, must be used as a design criterion for a dam. Some important characteristics include soil type, land use, size and shape of the watershed, and average watershed slope. Both the volume and rate of runoff are affected. For example, water will run off of steep slopes more quickly than gentle ones. More water will infiltrate sandy soils than clay.

Any other questions, comments concerns, or fact sheet requests, should be directed to the Division of Water at the following address:

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 2045 Morse Road  
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 Voice: (614) 265-6731 Fax: (614) 447-9503  
 Website: <http://www.dnr.state.oh.us/water>

**All-season Probable Maximum Precipitation (in inches) for 6-hour duration, 10-square mile area.**



*Adapted from HMR-51, National Weather Service, 1978.*



Ted Strickland Governor • Sean D. Logan Director • Deborah Hoffman Chief



## Ohio Department of Natural Resources Division of Water Fact Sheet

Fact Sheet 99-60

# Dam Safety: Critical Flood Design Criteria

Ohio's Dam Safety Rules require dams to pass floods through their spillways without endangering the safety of the dam. The magnitude of the design flood is directly related to the classification of the dam - which in turn is related to the dam's downstream hazard and/or the dam's height. The greater the downstream hazard, i.e., loss of human life, high-value property, etc., the larger the design flood.

### Definitions

The probable Maximum Precipitation (PMP) is the greatest depth (amount) of precipitation for a given storm duration, that is theoretically possible for a particular area and geographic location. The Probable Maximum Flood (PMF) is the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

### Classification of Ohio Dams

Dams in Ohio are divided into four classes based on the storage volume of the impoundment, dam height, and potential downstream hazard (how far downstream residences, businesses are, etc.). More details about the classification system can be found in the Dam Safety: Classification of Structures Fact Sheet No. 94-29.

### Critical Flood Design Criteria

Specific guidelines are available for preparing a critical flood engineering analysis. This analysis must be performed by a professional engineer licensed in the State of Ohio. The guidelines can be downloaded from the Division of Water's world wide web site, (<http://www.dnr.state.oh.us/odnr/water/temp/dartrlsa.html>), or you can request a copy by calling our office directly.

### Could the Critical Flood Analysis Make a Difference for My Dam?

The critical flood criteria were developed to make Ohio's Dam Safety Rules more flexible in recognizing that some dams fall outside of the typical parameters used in designing spillway capacity. Specifically, for those circumstances where the size of the dam, its downstream

hazard, drainage area, and downstream topography are such that traditional flood design standards do not accurately account for the downstream hazard, critical flood criteria allow for a reduction of up to 60% of the design flood.

For example, let's look at a Class I dam. This type of dam is required to safely pass the 100% PMF through its spillway system without endangering the safety of the dam. As rain falls onto a dam's watershed, some of the rainfall will infiltrate into the ground, some will evaporate, and most of it will runoff across the ground into the pond or lake. The water level in the impoundment will begin to rise while simultaneously flowing through the dam's spillway(s). As water exits the dam's spillway(s), the downstream channel will begin to fill and flow accordingly. For most dams, the downstream channel will likely fill with some water, but most of the water flows downstream without backing up significantly. For those few cases where the downstream channel fills rapidly to the point where water rises dramatically and failure of the dam would have no additional significant increase in elevations of floods downstream, the design flood can be reduced. In other words, there may be a point, say 50% of the PMF (the critical flood in this case), where designing for additional flood capacity for the dam is no longer reasonable. If the dam were to fail, the downstream hazard would not be further adversely effected. In this case, the spillway system may be designed for half of what it would have been originally designed, therefore saving dollars without increasing the hazard to the downstream area.

### What is the Maximum Reduction in Design Flood?

The design flood can be reduced approximately up to 60% for each class of dam:

Class I	100% PMF down to no less than 40% PMF
Class II	50% PMF down to no less than 20% PMF
Class III	25% PMF down to no less than 100 Year

*Continued on back!*

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## **What Factors Should I Consider Before Proceeding With an Analysis?**

The cost of the analysis can be thousands of dollars. Let's assume that a dam inspection by our engineers reveals that a dam is deficient in its ability to pass the design flood. It would be beneficial to have an analysis performed if the design flood was reduced enough so that the spillway system did not need to be upgraded or replaced. Let's assume that upgrading the spillway system costs \$50,000. If the cost of the critical flood analysis was \$5,000, the cost of the critical flood analysis would be warranted.

Sometimes it can be straightforward to predict whether or not an analysis would be beneficial. However, in those cases where it may not be clear, other options should be considered. For example, if room exists in one of the dam's abutments to excavate an emergency spillway or perhaps enlarge an existing emergency spillway, it may be more cost effective to do so. There is always a risk in running an analysis and finding out that the reduction in design flood is insignificant and the spillway system enlargement is still required.

A critical flood analysis approved by our office means that a reduced design flood is acceptable for your dam. Please note that a reduction in the design flood for your dam may increase the risk of failure or damage to your dam. This could result in an economical burden on the dam owner. This risk should be closely considered!

## **How Can I Apply for the Critical Flood Reduction?**

A request for consideration must be submitted to the Chief of the Division of Water. The request must be accompanied by supporting calculations based upon an analysis performed by a professional engineer registered in the State of Ohio. The engineer's analysis must conform to the critical flood guidelines provided by the Division of Water.

Before applying, it is best to call and speak with an engineer in the Division's Dam Safety Engineering Program.

## **What Restrictions Are There?**

A critical flood reduction based upon planned evacuation, probability of inhabitation, or monetary recovery of property damage will not be considered. In other words, guaranteeing that a downstream residence or business will be evacuated during a dam failure will not be considered. In situations where the downstream hazard may or may not be inhabited, such as in the case of a campground, rental property, hotel, and so forth, the probability of inhabitation will not be considered. Also, understanding that failure of a dam will damage downstream property and guaranteeing that the damages will be paid for will also not be considered. Finally, if the downstream hazard were to change, the critical flood exemption could be nullified.

Any other questions, comments concerns, or fact sheet requests, should be directed to the Division of Water at the following address:

Ohio Department of Natural Resources  
Division of Water  
Dam Safety Engineering Program  
2045 Morse Road  
Columbus, Ohio 43229-6693  
Voice: (614) 265-6731 Fax: (614) 447-9503  
Website: <http://www.dnr.state.oh.us/water>



## Critical Flood Guidelines

Purpose of the “critical flood” rule is to recognize that in certain situations, overtopping dam failures may be insignificant in how much damage they cause to downstream areas. It is based on the assumption that if all downstream flood damages occur due to a base-flow flood that is less than the regulatory design flood for the dam, then requiring additional spillway capacity above this flood to satisfy the design flood requirement would therefore, not be necessary. For this outcome, a flood of lesser size may exist that would show a more measurable impact than the regulatory design flood for the dam. The measurable impact that occurs to downstream areas from any hypothetical base-flow flood, given the dam fails, must be greater than the amount occurred for the same flood, given the dam does not fail, before the flood can be labeled as critical. The term “base-flow” flood, used throughout this document, refers to a starting flood condition in which an action or undertaking is made and should not be misinterpreted as groundwater flow.

The importance as to the dam’s value and benefits it provides to the owner and the community must always be evaluated before subjecting the dam to possible overtopping and failure by a flood that is less than the required design flood for the structure. An incremental damage analysis may be used to determine the inflow design (critical) flood that is less than the minimum requirements of 1501:21-13-02. The flood will be based upon a comparison of two flood simulations occurring with the dam in question present: one, a base-flow flood that has a size that would cause failure of the dam, but has been modeled without any effects from a dam failure (Condition A), two, the same flood, but modeled to include the dam-break discharges based on the most severe hypothetical dam failure that is possible (Condition B). These flood simulations are routed downstream through a reach that has been determined to be the recipient of the potential floodwater damages. The spillway capacity and inflow design flood will be acceptable where it can be shown that the dam failure flood (Condition B) would cause no expected additional loss of life and would not cause significant incremental flood damages downstream of the dam. Additional potential for loss of life, health or property in the critical routing reach is expected if the incremental depth of flow between the dam failure and non-failure floods is greater than 2.0 feet or the product of the average floodplain flow velocity and the incremental depth is greater than 7.0 feet<sup>2</sup>/second.

The design for the critical flood must be for specific site conditions and based on a quantitative and relative impact analysis of the downstream critical routing reach. The owner must submit to the chief, in writing, a request for consideration of the critical flood as the design flood. This request must be accompanied by appropriate supporting calculations. The chief will not consider risk assessment based upon planned evacuation, probability of inhabitation, or monetary recovery of property damage.

The scope of the critical flood analysis will identify the flooding source, upstream and downstream limits of the stream reach to be studied, and the applicable hydrologic and hydraulic methodology to be used. The scope may require completion of any or all of the following work items:

## Critical Flood Guidelines

### Page 2

- I. Field surveys to obtain data for stream and adjacent floodplain cross sections and other structures that may affect the hydraulics of the study reach.
- II. Hydrologic analyses to determine stream peak discharges for the dam's design flood and any floods of a lesser magnitude used in the process of determining the inflow design flood for the dam.
- III. Hydraulic analyses to determine dam failure discharges, flood elevations and floodplain stream and channel velocities at critical locations along the study reach.
- IV. Development of a flood inundation map for the critical structures within the study reach using topographic work maps of the floodplains.

### **General Requirements:**

1. A critical flood study conducted in accordance with Ohio Administrative Code (OAC) Rule 1501:21-13-02 shall include a written statement of purpose and scope of the analysis.
2. The analysis shall identify the flooding source, recurrence intervals for all flood events that were analyzed, upstream and downstream limits of stream reach to be studied, and the applicable hydrologic and hydraulic methodology to be used. This scope of the study may include, but not be limited to, completion of any or all of the following work items:
  - a. Preparation of topographic work maps of the floodplains within the study area. The maps must identify elevations of the critical structures that are affected by the flood study.
  - b. Field surveys to obtain data for stream cross sections and other hydraulic parameters (i.e., Manning's "n", Expansion and Contraction coefficients, etc.).
  - c. Hydrologic analysis to determine discharge rates used in flood routings for the various flood frequencies used to substantiate the critical flood flows.
  - d. Hydraulic analysis to determine dam failure discharges, flood elevations, floodplain boundaries, and stream channel and floodplain velocities. Calculations to determine the dam failure discharges must include a sensitivity study on the set of boundary conditions established for the dam breach analysis. This study is required for obtaining the most severe hydraulic condition during a catastrophic dam failure that is theoretically possible. Dam breach parameters used in the critical flood analysis shall be based on suggested values established by the U. S. Army Corps of Engineers, or the Federal Energy Regulatory Commission, unless otherwise approved by the chief.

- e. Compilation of other flood study technical documentation used in the analysis.
  - f. Preparation of a critical flood report with flood profiles and work maps of the floodplain.
3. A “critical flood” study conducted in accordance with OAC Rule 1501:21-13-02 shall be completed under supervision of a registered professional engineer who is qualified to do flood study work.

### **Data Acquisition and Mapping**

1. Topographic mapping for critical flood studies conducted in accordance with OAC Rule 1501:21-13-02 shall conform to the following standards:
- A. Mapping shall be done by photogrammetric methods and/or topographic surveying. If topographic mapping is based solely on field surveys, map accuracy requirements shall be the same as those required by photogrammetric methods.
  - B. Map scale may vary but should not exceed one inch equals 1000 feet for the study area.
  - C. Contour intervals shall not exceed 5 feet for the appropriate terrain. Intermediate one-foot contour intervals may be required for special cases such as unusually flat terrain.
  - D. Elevations used in the flood study shall correspond to the National Geodetic vertical datum of 1929 or, when available, the successor North American vertical datum of 1983. Elevation reference marks and temporary reference points established for the study shall be tied by survey to at least one official bench mark of the datum for which the exact elevation to the nearest hundredth of a foot has been obtained.

### **Data Standards and Procedures**

1. The following standards and procedures shall apply to hydrologic data used in a critical flood determination study conducted in accordance with OAC Rule 1501:21-13-02.
- A. Hydrologic data shall be from official government sources except as approved by the chief. Use of unofficial data sources, such as high-water marks, shall be dependent on reliability of the data.
  - B. Stream flow data used for calibrating the hydrologic model shall be from official government records such as published by the United States Geological Survey.

- C. Precipitation data shall be from official government records such as published by the National Weather Service.
  - D. Watershed data shall be from official maps, survey documents, and aerial photography generated by pertinent government agencies. Sufficient field observations shall be made to interpret maps and photographs and identify any significant changes in watershed conditions since source materials were completed.
2. The following standards and procedures shall apply to channel and valley cross sections used in the critical flood study conducted in accordance with OAC Rule 1501:21-13-02:
- A. Each cross section must span the entire floodplain for each of the appropriate discharges used in the flood study. The cross sections must represent the particular stream reach from which it was taken. Local irregularities in ground surface that are not representative of reaches shall be avoided in surveys.
  - B. Cross-section alignment shall be perpendicular to the direction of flow. Cross-sections may consist of straight, curved or zigzag segments as needed to achieve proper alignment.
  - C. Horizontal stations for the cross-section shall correspond to the distance measured to the nearest foot along the straight, curved or zigzag alignment of the cross-section.
  - D. Cross-section elevations shall be determined at all significant breaks in ground slope and at points where significant changes in hydraulic characteristics of the floodplain occur. Additional points shall be included, as appropriate, using the following criteria as a guide:
    - 1. The distance between channel reach stations should be such that the depth of flow at the next neighboring cross-section downstream does not increase more than 20 percent.
    - 2. No adjacent horizontal points in the overbank areas shall be separated by more than 10 percent of the complete valley and channel cross-section width.
    - 3. No adjacent horizontal points in the main channel shall be separated by more than 20 percent of the main channel width or 2 feet, whichever is greater.
    - 4. Elevations of above water portions of cross-sections shall be determined by field surveys or photogrammetric techniques, when reliable data of sufficient accuracy cannot be obtained from available sources. Elevation of below water portion of cross-

- sections shall be determined by field survey except where reliable data of sufficient accuracy can be obtained from available sources. Field surveys shall normally be accomplished by differential leveling or a differential global positioning system.
3. The following standards and procedures shall apply to channel and overbank reaches used in the critical flood analysis conducted in accordance with OAC Rule 1501:21-13-02:
    - A. Channel reach length shall be the distance between cross sections as measured along the principal flow line of the stream channel at the flood stage.
    - B. Channel and overbank reach lengths between stream cross-sections shall be determined by field surveys or distance measurements on topographic work maps. Design drawings for bridges and hydraulic structures shall be used to obtain reach lengths if available.
  4. The following standards and procedures shall apply to roughness coefficients used in the critical flood analysis conducted in accordance with OAC Rule 1501:21-13-02:
    - A. Roughness coefficients shall be determined by field inspection of channel and overbank areas. Consideration shall be given to variation in roughness at various flood stages. Aerial photographs, when available, shall be used to supplement field observations.
    - B. Roughness coefficients obtained from any previous work shall be field checked for accuracy and updated, if they do not reflect current conditions.
  5. The following standards and procedures shall apply to bridges and hydraulic structures data used in the critical flood analysis conducted in accordance with OAC Rule 1501:21-13-02:
    - A. Dimensions and elevations of all bridges and hydraulic structures including below water sections shall be obtained from construction drawings and/or by field survey measurements.
    - B. Bridges and hydraulic structures data obtained from documents shall be field checked in sufficient detail to verify that the data are for the correct structure and match as-built conditions.
    - C. No dimensions or elevations for bridges and hydraulic structures shall be determined by photogrammetric methods. Photographs shall be used to supplement and document field observations or hydraulic structures.
  6. The following standards and procedures shall apply to the dam failure analyses data used in

the critical flood study conducted in accordance with OAC Rule 1501:21-13-02:

- A. All boundary conditions used in the dam failure analysis must be supported by sound engineering assumptions and supporting field data obtained for the dam. A sensitivity analysis shall be required by varying the input boundary conditions used in a dam break model as a means of converging on the worst case dam failure modeling scenarios. The maximum discharges obtained from the dam failure analysis shall be used for the basis of determining downstream impact on the critical routing reach.
- B. Parameters used to estimate the erosiveness of the soils shall be field checked in sufficient detail to verify their validity in use. Each boundary condition used in the development of the dam failure model shall be supported by sound engineering assumptions.

### **Hydrologic Requirements**

1. Hydrologic analyses for the critical flood determination conducted in accordance with OAC Rule 1501:21-13-02 shall require a determination of the base-flow flood discharges and dam failure discharges at appropriate stream stations downstream of the dam. The criteria used to establish the initial base-flow flood discharge for a class I dam is the probable maximum flood, for a class II dam, 50 percent of the probable maximum flood, and for a class III dam, 25 percent of the probable maximum flood. The dam failure discharges are determined by doing a breach analysis for the dam and combining the resulting breach hydrograph for the worst case failure condition with the base-flow flood hydrograph established for the dam.

- A. Flood peak discharge estimates shall be determined for the downstream terminus of the stream reach studied and at all upstream stations where significant changes in peak discharge occur due to reduction in tributary drainage area and other factors.
- B. Flood peak discharge estimates established for the study area by previous work shall be acceptable for use in flood studies provided that parameters used to make previous estimates remain valid for existing conditions, methodologies are consistent with standard engineering practices and guidelines, and accuracy of estimate is within confidence limits approved by the chief.

2. Methodology for calculating discharges conducted for critical flood analyses in accordance with OAC Rule 1501:21-13-02 shall conform to the following standards:

- A. A rainfall-runoff model (e.g., HEC-1) shall be used to estimate the flood peak discharges used in the critical flood analysis. The model shall be calibrated as

appropriate and conform to the following standards:

1. Models shall normally be based on unit-graph theory as embodied in unit-graph procedures of the Natural Resources Conservation Service, United States Geological Survey, and United States Army Corps of Engineers. Use of an alternate runoff simulation modeling procedure must be approved by the chief.
2. Drainage areas and sub-basin areas for unit graphs shall have reasonable uniform hydrologic characteristics.
3. Durations of storm rainfall shall be the duration resulting in the largest discharges for the stream reach being studied.
4. Rainfall amounts for storm events of different duration and frequency shall be estimates as published by the National Weather Service or other approved source.
5. Point-Rainfall estimates shall be adjusted using area-depth relationships when the area of the modeled drainage basin exceeds ten square miles.
6. Rainfall distribution shall be an appropriate pattern such as national weather service median time distributions, miller distribution, or Natural Resources Conservation Service Type II storm pattern.
7. Methodology used to estimate flood peak discharges shall include procedures that account for urbanization, surface mining, regulation, and valley storage when these are significant factors affecting flood flows. Urbanization and surface mining shall be considered to be significant factors whenever more than 30 percent of the watershed is affected by these land use activities. Allowances for effects of urbanization on flood peaks shall be made by appropriate procedures such as those developed by the United States Geological Survey and the Natural Resources Conservation Service. Effects of Regulation and Valley Storage shall be accounted for by reservoir and stream routing techniques as appropriate.
8. When applicable, flood peak discharge estimates used in the critical flood analysis shall be checked for reasonableness by comparison with other flood peak data such as: actual flood peak discharges recorded for similar drainage basins, peak discharge estimates from other studies of similar basins, and estimates from alternative modeling techniques.

## **Hydraulic Requirements**

Hydrologic analyses for the critical flood determination conducted in accordance with OAC Rule 1501:21-13-02 shall conform to the following standards:

1. Water-surface profiles shall be determined by step-backwater procedure whenever applicable together with other pertinent hydraulic formulae. Computer programs used for water surface profile analysis shall be step-backwater algorithms such as the United States Army Corps of Engineers's HEC-RAS program.
2. Dam failure discharges shall be determined by a flood routing program equipped with dam failure analysis routines and/or a specific dynamic reservoir routing program such as the Boss Dambreak program.
3. Initial water-surface elevation used in step-backwater analysis shall be based on normal depth or determined from stage-discharge rating at a control section. If normal depth is used to determine initial water-surface elevation, the modeling shall include at least three initial cross sections beyond the terminus of the stream reach where actual flood elevations are required to allow for iterative convergence of flood profile.
4. Models shall be calibrated using measured profiles and reliable high-water marks of past floods when such information is available. Models shall match known high-water marks within plus or minus 0.5 foot.
5. Any cases where computation of water-surface profiles may require use of two-dimensional computer modeling, dynamic wave routing or other special analysis shall be approved by the chief.
6. Location, alignment and subdivision of channel and floodplain cross-sections used in stream modeling shall be based on field observations and careful examination of topographic maps and aerial photographs. Cross-sections shall be typical of adjacent upstream and downstream reaches. A minimum of four cross-sections is required for the critical flood analysis.
7. Cross-sections shall be located where needed to account for changes in dimensions and roughness of the channel and floodplain. Cross-sections shall be located at all significant breaks in channel grade. Channel reach length between cross-sections shall be short enough to avoid excessive change in conveyance, velocity head, or energy loss.
8. Alignment of cross-sections shall normally be perpendicular to direction of flow in channels and overbank areas. For streams with severe meanders, where the majority of stream flow deviates from the channel, the alignment of cross-sections shall be perpendicular to the center of mass of the flow.
9. Floodplain and channel cross-sections shall be subdivided into at least channel and overbank

areas for analysis. Additional subdivisions may be required depending on the specific cross-section. Ineffective flow areas shall be excluded from cross-sections as appropriate to insure accurate modeling of stream flow.

10. Modeling of existing channel constrictions shall include a sufficient number of upstream and downstream cross-sections to accurately model flow lines.

11. Modeling of bridges and culverts using routines in step-backwater computer programs shall require at least four cross sections. Sections shall be located at the upstream and downstream sides of the structures and at appropriate distances upstream and downstream of the structures to properly model transitions and ineffective flow areas. Additional cross-sections shall be used as needed to establish starting water elevation and evaluate upstream and downstream impacts. Options in step-backwater programs for direct input of bridge and culvert profiles based on hydraulic charts and other sources may be used when appropriate.

12. Modeling of developed floodplain areas with buildings shall normally be based on adjustment of roughness coefficients by procedures such as those developed by the United States Geological Survey. In cases where it involves a single building or a limited number of buildings, these structures may be modeled using at least four cross-sections to model the blocked portion of the floodplain, ineffective flow areas, and open areas upstream and downstream of the buildings.

13. Split flow analysis shall be considered when stream flows divide around an island or overflow the banks of the main stream and take a different flow path. The analysis shall address the reduction in flow in the downstream reach when overflows leave the main channel and enter another basin. Acceptance of the procedures used in the split flow analysis will be required by the chief on a case by case basis.

14. Modeling of tributary streams shall proceed from initial water-surface elevations determined from normal depth on the main stream unless coincident peak situation applies or tributary flow depth is higher than the corresponding main stream event.

### **Flood Study Report**

1. The critical flood analysis conducted in accordance with OAC Rule 1501:21-13-02 shall be summarized in a flood study report. Contents of the report shall include all applicable narratives and exhibit items detailed under this guideline.

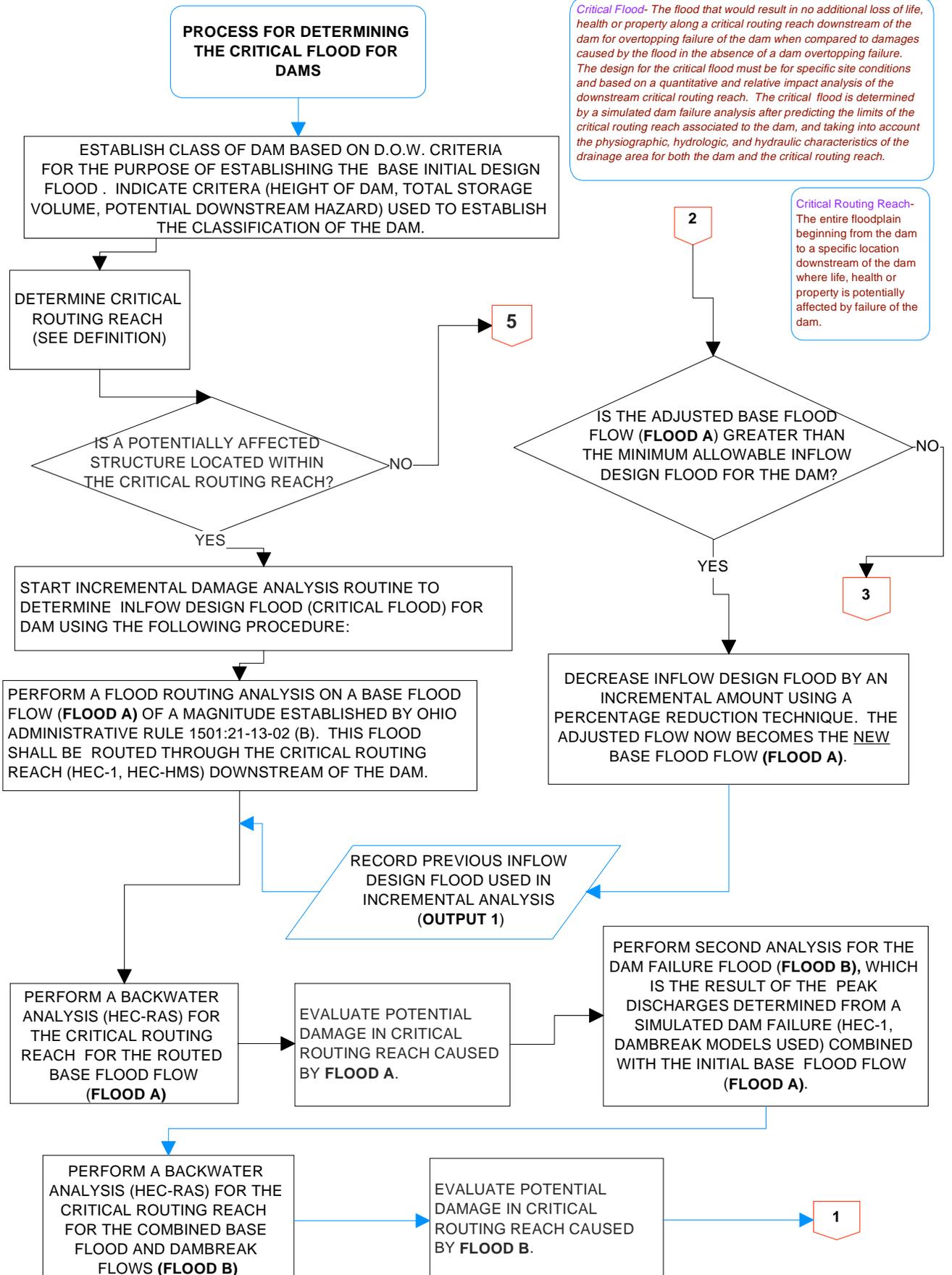
2. Reports of the critical flood analysis shall contain a narrative text that is organized into the following sections: Introduction, Area Studied, Hydrologic Analysis, Hydraulic Analysis, and Summary of Impact.

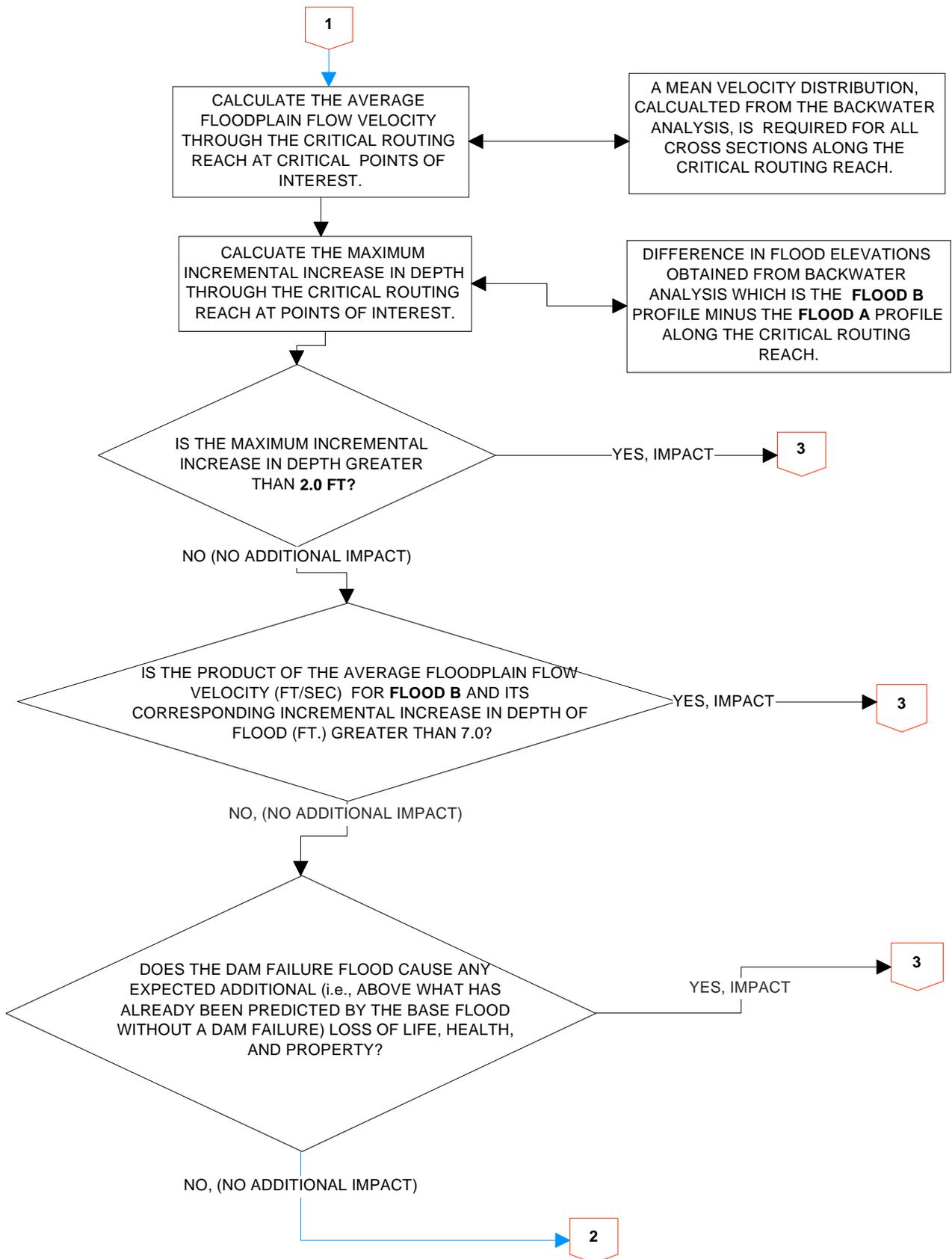
- A. The introductory section of critical flood reports shall state the purpose of the study, cite the authority for the work, summarize the scope of the work, and discuss study requirements.
- B. The area studied section of the critical flood report shall describe the location of the study area, flooding source, and define the critical routing reach for the dam.
- C. The hydrologic analysis section of the critical flood report shall discuss the following items:
  1. Methodology and adequacy for current study of flood discharge estimates for the flooding source.
  2. Methodology used to compute peak discharge estimates for flooding source and document sources of hydrologic data.
  3. Include a summary of discharges in a table that gives the following information: name of flooding source, location point on stream, drainage area in square miles, and the various flood frequency peak discharges for the with and without dam failure conditions.
  4. Review any historical flood information for the flooding source and discuss comparative flood peak estimates based on alternative methodology as appropriate.
- C. The hydraulic analysis section of the critical flood report shall discuss the following items:
  1. Methodology used to generate flood profiles for the study reach.
  2. Discuss methodology, engineering assumptions, and the hydraulic parameters for their adequacy in the development of the dam failure discharges.
  3. Discuss methodology and field procedures used to generate flood profiles including: how cross sections were obtained, how channel and overbank reach lengths were determined, how roughness factors were estimated, how dimensions of hydraulic structures were obtained, how water surface elevations were computed, and how starting water elevations were determined.
  4. Describe the concepts and procedures used to comply with the no impact requirements for critical flood determination.
  5. Describe methods used to evaluate the hydraulic impact of a dam failure flood on

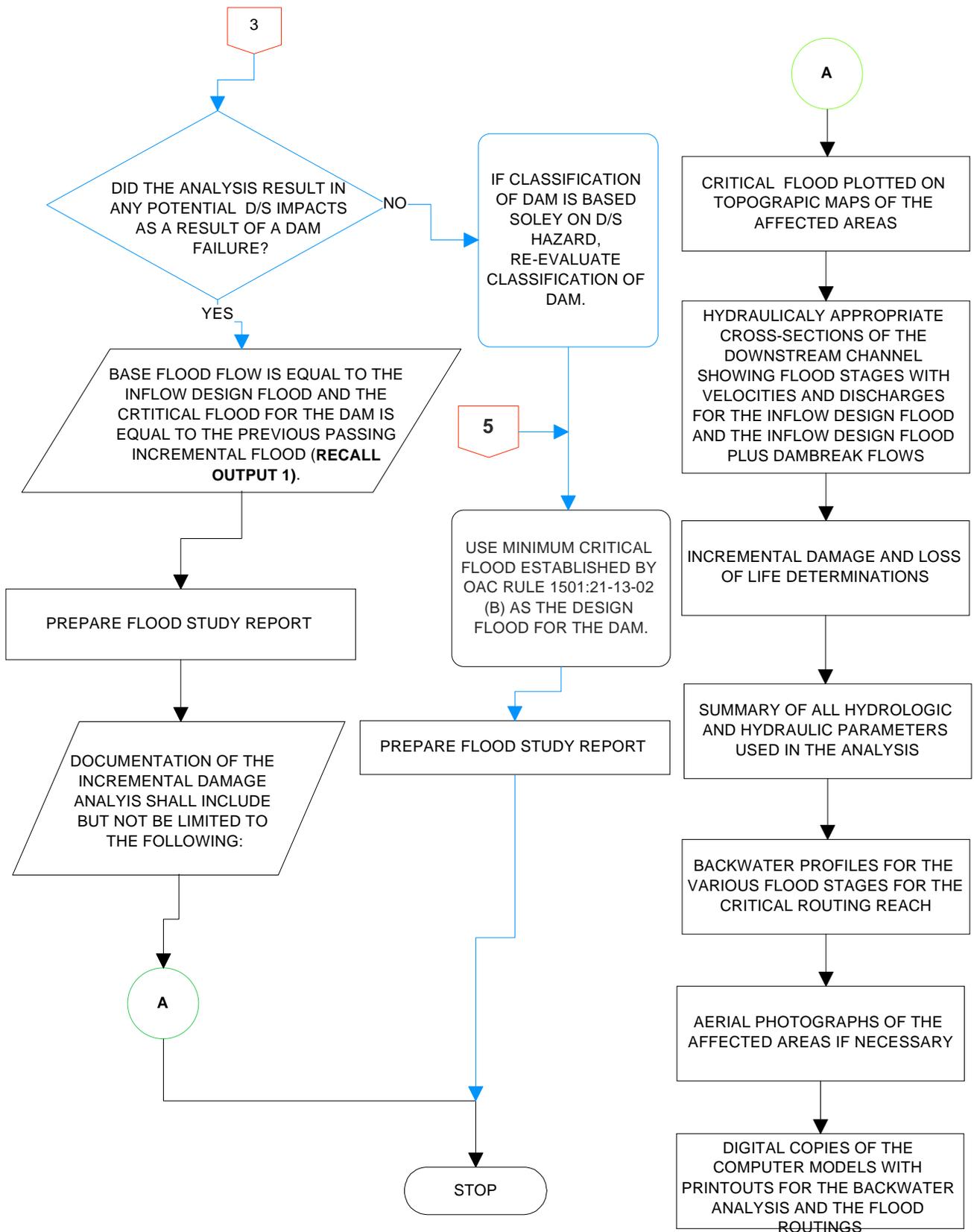
the critical routing reach, and summarize results of the hydraulic analysis.

3. Reports of the critical flood analysis, conducted in accordance with OAC Rule 1501:21-13-02 may include, but not be limited to the following exhibits: work maps, flood profiles, and photographs.

- A. Work maps shall contain coverage of the critical routing reach and all potential affected structures.
  - 1. Each work map shall be identified with the following information: date map was prepared, map bar scale, north arrow, source of base map and date, whether map is one of several maps, and a legend, if applicable, indicating any symbols used for identification purposes on the map.
  - 2. Work maps shall show existing topographic contours, low-water outline of streams and lakes, cross sections, boundaries of floodplains associated with the critical flood discharges.
- B. Flood profiles shall be prepared for all flood recurrence interval events studied.
- C. Photographs may be used in the critical flood analysis report to supplement text material and provide documentation of observed field conditions at the time of the study. Photographs may include views of the critical routing reach and its overbank areas, hydraulic structures, any structures in the floodplain that are potentially affected by the dam failure discharges, and other significant features of the landscape.
- D. A certification page signed and stamped by the registered professional engineer in charge of the study. The engineer shall certify that the data for the physical parameters use in the critical flood study represent actual field conditions.
- E. Submittals to the chief of reports and technical documentation of critical flood studies conducted in accordance with OAC Rule 1501:21-13-02 shall be accompanied by a cover letter identifying the report, its purpose, and any action requested of the chief.









## Ohio Department of Natural Resources Division of Water Fact Sheet

Fact Sheet 99-60

# Dam Safety: Critical Flood Design Criteria

Ohio's Dam Safety Rules require dams to pass floods through their spillways without endangering the safety of the dam. The magnitude of the design flood is directly related to the classification of the dam - which in turn is related to the dam's downstream hazard and/or the dam's height. The greater the downstream hazard, i.e., loss of human life, high-value property, etc., the larger the design flood.

### Definitions

The probable Maximum Precipitation (PMP) is the greatest depth (amount) of precipitation for a given storm duration, that is theoretically possible for a particular area and geographic location. The Probable Maximum Flood (PMF) is the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in a particular drainage area.

### Classification of Ohio Dams

Dams in Ohio are divided into four classes based on the storage volume of the impoundment, dam height, and potential downstream hazard (how far downstream residences, businesses are, etc.). More details about the classification system can be found in the Dam Safety: Classification of Structures Fact Sheet No. 94-29.

### Critical Flood Design Criteria

Specific guidelines are available for preparing a critical flood engineering analysis. This analysis must be performed by a professional engineer licensed in the State of Ohio. The guidelines can be downloaded from the Division of Water's world wide web site, (<http://www.dnr.state.oh.us/odnr/water/temp/dartrlsa.html>), or you can request a copy by calling our office directly.

### Could the Critical Flood Analysis Make a Difference for My Dam?

The critical flood criteria were developed to make Ohio's Dam Safety Rules more flexible in recognizing that some dams fall outside of the typical parameters used in designing spillway capacity. Specifically, for those circumstances where the size of the dam, its downstream

hazard, drainage area, and downstream topography are such that traditional flood design standards do not accurately account for the downstream hazard, critical flood criteria allow for a reduction of up to 60% of the design flood.

For example, let's look at a Class I dam. This type of dam is required to safely pass the 100% PMF through its spillway system without endangering the safety of the dam. As rain falls onto a dam's watershed, some of the rainfall will infiltrate into the ground, some will evaporate, and most of it will runoff across the ground into the pond or lake. The water level in the impoundment will begin to rise while simultaneously flowing through the dam's spillway(s). As water exits the dam's spillway(s), the downstream channel will begin to fill and flow accordingly. For most dams, the downstream channel will likely fill with some water, but most of the water flows downstream without backing up significantly. For those few cases where the downstream channel fills rapidly to the point where water rises dramatically and failure of the dam would have no additional significant increase in elevations of floods downstream, the design flood can be reduced. In other words, there may be a point, say 50% of the PMF (the critical flood in this case), where designing for additional flood capacity for the dam is no longer reasonable. If the dam were to fail, the downstream hazard would not be further adversely effected. In this case, the spillway system may be designed for half of what it would have been originally designed, therefore saving dollars without increasing the hazard to the downstream area.

### What is the Maximum Reduction in Design Flood?

The design flood can be reduced approximately up to 60% for each class of dam:

Class I	100% PMF down to no less than 40% PMF
Class II	50% PMF down to no less than 20% PMF
Class III	25% PMF down to no less than 100 Year

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## What Factors Should I Consider Before Proceeding With an Analysis?

The cost of the analysis can be thousands of dollars. Let's assume that a dam inspection by our engineers reveals that a dam is deficient in its ability to pass the design flood. It would be beneficial to have an analysis performed if the design flood was reduced enough so that the spillway system did not need to be upgraded or replaced. Let's assume that upgrading the spillway system costs \$50,000. If the cost of the critical flood analysis was \$5,000, the cost of the critical flood analysis would be warranted.

Sometimes it can be straightforward to predict whether or not an analysis would be beneficial. However, in those cases where it may not be clear, other options should be considered. For example, if room exists in one of the dam's abutments to excavate an emergency spillway or perhaps enlarge an existing emergency spillway, it may be more cost effective to do so. There is always a risk in running an analysis and finding out that the reduction in design flood is insignificant and the spillway system enlargement is still required.

A critical flood analysis approved by our office means that a reduced design flood is acceptable for your dam. Please note that a reduction in the design flood for your dam may increase the risk of failure or damage to your dam. This could result in an economical burden on the dam owner. This risk should be closely considered!

## How Can I Apply for the Critical Flood Reduction?

A request for consideration must be submitted to the Chief of the Division of Water. The request must be accompanied by supporting calculations based upon an analysis performed by a professional engineer registered in the State of Ohio. The engineer's analysis must conform to the critical flood guidelines provided by the Division of Water.

Before applying, it is best to call and speak with an engineer in the Division's Dam Safety Engineering Program.

## What Restrictions Are There?

A critical flood reduction based upon planned evacuation, probability of inhabitation, or monetary recovery of property damage will not be considered. In other words, guaranteeing that a downstream residence or business will be evacuated during a dam failure will not be considered. In situations where the downstream hazard may or may not be inhabited, such as in the case of a campground, rental property, hotel, and so forth, the probability of inhabitation will not be considered. Also, understanding that failure of a dam will damage downstream property and guaranteeing that the damages will be paid for will also not be considered. Finally, if the downstream hazard were to change, the critical flood exemption could be nullified.

Any other questions, comments concerns, or fact sheet requests, should be directed to the Division of Water at the following address:

Ohio Department of Natural Resources  
Division of Water  
Dam Safety Engineering Program  
2045 Morse Road  
Columbus, Ohio 43229-6693  
Voice: (614) 265-6731 Fax: (614) 447-9503  
Website: <http://www.dnr.state.oh.us/water>





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**TITLE 785. OKLAHOMA WATER RESOURCES BOARD  
CHAPTER 25. DAMS AND RESERVOIRS**

**Introduction:**

This document contains permanent amendments to Chapter 25 adopted by the Oklahoma Water Resources Board that became effective May 27, 2010. Also, this document was prepared by Oklahoma Water Resources Board staff as a convenience to the reader, and is not a copy of the official Title 785 of the Oklahoma Administrative Code. The rules in the official Oklahoma Administrative Code control if there are any discrepancies between the Code and this document.

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**[Authority:** 82 O.S., Sections 105.25 – 105.27 and 1085.2]

**[Source:** Codified 12-31-91]

**SUBCHAPTER 1. GENERAL PROVISIONS**

## Section

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**785:25-1-1. Purpose**

The rules of this Chapter on reservoir requirements and safety of dams set forth minimum standards for construction and maintenance of dams based on size and hazard classification, application requirements for approval of plans and specifications, and inspection requirements. These rules are adopted pursuant to 82 O.S. 1981, §§105.27, 110.1 et seq. (Oklahoma Dam Safety Act) and 1085.2(7), and Public Law 92-367, 92<sup>nd</sup> Congress, H.R. 15951, approved August 8, 1972 (33 U.S.C. 467 et seq.). Under no circumstances shall the rules in this Chapter be construed to deprive or limit the Oklahoma Water Resources Board of any exercise of powers, duties, and jurisdiction conferred by law nor to limit or restrict the amount or character of data or information which may be required from any owner of any dam for the proper administration of the law.

**[Source:** Amended at 10 Ok Reg 3287, eff 6-25-93]

**785:25-1-2. Definitions**

The following words and terms, when used in this Chapter, shall have the following meaning, unless the context clearly indicates otherwise:

"**Alteration**" means only such alteration as may affect the safety of a dam or reservoir.

"**Application**" means a formal request to the Board and the first step required by law to acquire the right to perform or engage in activities regulated by the Board.

"**Board**" means and refers to the Oklahoma Water Resources Board or any employee or agent or staff member thereof.

**"Breach analysis"** means an engineering analysis to determine the area that would be inundated by the failure of a dam.

**"Dam"** means any artificial barrier, together with appurtenant works, which does or may impound or divert water.

**"Enlargement"** means any change in or addition to an existing dam or reservoir which raises or may raise the water storage elevation of the water impounded by the dam or reservoir.

**"Failure"** with respect to a dam means any uncontrolled release of water.

**"Gully plug"** means any grade stabilization structure that has less than five acre-feet of water storage available below the principal spillway elevation and less than 50 acre-feet of storage volume below the emergency spillway elevation.

**"Interested party"** means party.

**"Loss of human life"** means the human fatalities that would result from a failure of the dam, excluding the occasional passer-by or recreationist and without considering evacuation or other emergency actions.

**"Notice by publication"** means unless otherwise specifically provided, publication in a daily or weekly newspaper of general circulation once a week or two (2) consecutive weeks (minimum seven day interval).

**"Owner"** means any person who, jointly or severally, owns, controls, maintains, manages, or proposes to construct a dam or reservoir, and includes those shown by records of the county registrar of deeds to have some interest, fee, easement, or otherwise, in the land on which the dam and lake lie and may also include those persons who may derive a direct pecuniary benefit from the existence of the lake [82:110.3].

**"Party"** means a person or agency named and participating, or properly seeking and entitled by law to participate, in hearings other than hearings on Board rules, regulations and standards.

**"Person"** means any individual, firm, partnership, association, corporation, any trust formed for the benefit of an individual, business or any public entity, federal agency, state agency, the State or any political subdivision thereof, municipalities, and any other legal entity [82:110.3].

**"Repairs"** means only such repairs as may affect the safety of a dam or reservoir.

**"Reservoir"** means any surface depression which contains or will contain the water impounded by a dam.

**"Statistical twenty-four (24) hour, fifty (50) year storm"** means a storm of twenty-four (24) hour duration with a probable recurrence interval of once in fifty (50) years as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

**"Water storage elevation"** means that elevation of water surface which may be obtained by the temporary or permanent storage of water. This elevation is normally the lowest point on the top of the dam.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93; Amended at 11 Ok Reg 2931, eff 6-13-94]

### **785:25-1-3. Violations and penalties**

(a) Under Section 105.20 of Title 82 of the Oklahoma Statutes, the continued use of works which are unsafe, after receiving notice to repair, and the refusal to change unsafe works when directed to do so, or the injury or obstruction of waterworks shall be a misdemeanor and each day such violation continues shall be a separate violation.

(b) Under the Oklahoma Dam Safety Act (82 O.S. Supp. 1992, §§110.1 et seq.), the Board is authorized to issue emergency orders without prior notice and hearing and orders after notice and hearing requiring an owner to take action as necessary to put a dam in safe condition. In addition, the Board may impose administrative penalties against owners of dams who fail,

refuse or neglect to comply with the provisions of the Oklahoma Dam Safety Act. Procedures for imposition of such penalties are found in Subchapter 11 of this Chapter.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-1-4. Variances and waivers**

Applicants who request a variance or waiver to rules specified in this chapter must demonstrate, and shall bear the burden of demonstrating that operations under the variance will equal or exceed the protections accorded by the particular rule for which the variance is sought. The variance may also be granted if the Board finds that the cost of compliance with the rule without a variance would impose significant expense without providing for additional safety of the construction for which the variance or waiver is sought, and integrity of the dam will not be adversely affected. The Board may require that a registered professional engineer certify that the variance or waiver being requested will not adversely affect the integrity of the dam.

[Source: Added at 21 Ok Reg 2625, eff 7-1-2004]

### **SUBCHAPTER 3. RESPONSIBILITY, CLASSIFICATION AND DESIGN STANDARDS**

#### Section

- 785:25-3-1. Dams subject to Board's jurisdiction
- 785:25-3-2. Owner's responsibility
- 785:25-3-3. Classification of size and hazard potential
- 785:25-3-4. Dams considered unsafe and menace to life and property
- 785:25-3-5. Minimum design standards (other than spillway)
- 785:25-3-6. Minimum spillway performance standards
- 785:25-3-7. Minimum outlet conduit capacities
- 785:25-3-8. Measuring devices
- 785:25-3-9. Prohibited construction
- 785:25-3-10. Prohibited vegetation
- 785:35-3-11. Minimum safety factors

#### **785:25-3-1. Dams subject to Board's jurisdiction**

(a) *Dams, together with appurtenant works, which meet the following alternative criterion are subject to the provisions of [82:110.4] the Oklahoma Dam Safety Act and this Chapter of the Board's rules:*

(1) *Dams which are or will be twenty-five (25) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier or from the lowest elevation of the outside limit of the barrier or from the lowest elevation of the outside limit of the barrier if it is not across a stream channel or watercourse, to the top of the dam [82:110.4];*  
or

(2) *Dams which have or will have an impounding capacity of fifty (50) acre-feet or more [82:110.4];*

*provided, however, any barrier to the flow of water which does or may impound water and which is or will be not in excess of six (6) feet in height, regardless of storage capacity, or which has or will have a storage capacity not in excess of fifteen (15) acre-feet, regardless of height, shall not be subject to regulation . . . unless it is determined to have a high hazard potential classification under these rules [82:110.4] or except as hereinafter provided. The figure in Appendix A of this Chapter presents a graphic illustration of the height and storage criteria reviewed to determine the Board's authority relating to dams.*

(b) *No barrier to the flow of water determined by the Board to be designated primarily for roadfill shall be subject to regulation under this [82:110.4] Chapter.*

(c) *Gully plugs are not subject to regulation under this [82:110.4] chapter of the Board's rules.*

(d) *Dams constructed by any agency of the United States Government shall not be subject to regulation under this Chapter during or after construction while such dams remain under the supervision of any officer or agency of the United States* [82:110.4]

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93; Amended at 11 Ok Reg 2931, eff 6-13-94]

### **785:25-3-2. Owner's responsibility**

#### **(a) General.**

(1) Owners of dams to which the provisions of this Chapter apply shall have the responsibility to provide for the safety of such works by making any necessary changes to put the works in a safe condition.

(2) Such responsibility includes but is not necessarily limited to the following: the filing of an application to construct, enlarge, alter or repair the dam pursuant to Subchapter 5, the modification of the dam to meet applicable minimum requirements in this Subchapter, and the adequate maintenance, operation, and inspection of an existing dam.

#### **(b) Multiple owners.**

(1) When there is more than one owner of a dam, the Board shall consider all such owners responsible for the safety of such dam unless evidence to the contrary shows otherwise.

(2) The Board shall provide copies of inspection reports to at least one owner of record at the Board and shall provide notice of hearing on dam safety related matters to such owner with an instruction that the notice shall be delivered or mailed to all owners.

(3) Unless otherwise agreed by all the owners and the Board, the Board may, after such notice and hearing, order all the owners to take whatever remedial action is necessary to put the dam in a safe condition.

(4) The Board will not attempt to delineate levels of responsibility or allocate particular items of action among the owners.

#### **(c) Transfer of ownership.** Upon transfer of ownership of the works, the new owner shall notify the Board of such transfer.

[Source: Amended at 9 Ok Reg 1675, eff 5-11-92; Amended at 14 Ok Reg 2766, eff 7-1-97]

### **785:25-3-3. Classification of size and hazard potential**

#### **(a) All dams shall be classified as to size and for potential hazards as follows:**

(1) **Size Classification of Dams.** The size classification shall be based on the following chart:

##### (A) Small:

(i) Storage – less than 10,000 Ac-Ft.

(ii) Height – less than 50 Ft.

##### (B) Intermediate:

(i) Storage – between 10,000 and 50,000 Ac-Ft.

(ii) Height – between 50 and 100 Ft.

##### (C) Large:

(i) Storage – over 50,000 Ac-Ft.

(ii) Height – over 100 Ft.

(2) **Hazard-Potential Classification of Dams.** The hazard-potential classification of a dam is determined by the downstream risk in the event of a failure, without regard to the physical condition of the dam, as follows:

(A) **Low.** Dams assigned the low hazard-potential classification are those where failure would result in no probable loss of human life and low economic losses.

(B) **Significant.** Dams assigned the significant hazard-potential classification are those dams where failure would result in no probable loss of human life but can cause economic loss or disruption of lifeline facilities.

(C) **High.** Dams assigned the high hazard-potential classification are those where failure will probably cause loss of human life.

(b) **Hazard classification subject to regulation and change.**

(1) For dams which were inventoried in the National Safety of Dams program authorized under 33 U.S.C. 467 et seq., and for which "Phase I" reports pursuant to said inventory were prepared, the hazard classifications set forth in such "Phase I" reports shall be presumed accurate. If the owner of the dam disagrees with the hazard classification, the owner shall have the burden to show that such hazard classification is inaccurate and should be changed.

(2) At the discretion of the Board, any proposed or existing dam considered to have classification of a high hazard potential may be subject to regulation regardless of size or impounding capacity.

(3) The hazard potential classification may change as the area downstream from a dam develops and the dam may be reclassified from time to time under the provisions of 785:25-9-10 and 785:25-9-11.

[Source: Amended at 11 Ok Reg 2931, eff 6-13-94]

**785:25-3-4. Dams considered unsafe and menace to life and property**

(a) In determining whether a dam is *unsafe and a menace to life and property* [82:105.27] under the provisions of Section 105.27 of Title 82 of the Oklahoma Statutes and the corrective actions necessary to put a dam in a safe condition, the Board shall review the requirements set forth in rules of this Chapter, and recommendations on matters which directly affect the integrity of dams set forth in DESIGN OF SMALL DAMS (1977) and DESIGN OF GRAVITY DAMS (1976), published by the U.S. Department Interior Bureau of Reclamation (BOR), ENGINEERING AND DESIGN MANUALS, SERIES EM-1110, published by the U.S. Department of the Army, Corp of Engineers (COE), the ENGINEERING FIELD MANUAL and TECHNICAL RELEASE NO. 60, published by the U.S. Department of Agriculture, Natural Resources Conservation Service, or equivalent recommendations.

(b) Existing dams which are in imminent peril of failure shall be considered *unsafe and a menace to life and property* [82:105.27] under the provisions of Section 105.27 of Title 82 of the Oklahoma Statutes.

[Source: Amended at 9 Ok Reg 1676, eff 5-11-92; Amended at 10 Ok Reg 3287, eff 6-25-93; Amended at 14 Ok Reg 2766, eff 7-1-97]

**785:25-3-5. Minimum design standards (other than spillway)**

(a) The construction of the downstream embankment slope shall not be steeper than 3 horizontal units to each 1 vertical unit (3:1) to provide adequate factors of safety against sliding, sloughing or rotation in the embankment and foundation, unless a stability analysis is performed which shows a steeper slope provides an adequate factor of safety.

(b) Except as otherwise provided in this Chapter, all dams must be designed by methods, procedures and criteria that meet or exceed acceptable dam safety engineering practices, including those found in the federal agency publications referenced in 785:25-3-4.

**785:25-3-6. Minimum spillways performance standards**

(a) **General performance standards**

(1) Except as otherwise provided in this Chapter, all dams must meet or exceed the following performance standards as determined by analysis of plans and specifications for the dam and existing site conditions.

(2) Owners of existing dams which do not meet the following performance standards must make necessary changes in the dam to meet the applicable performance standards.

(3) The discharge capacity and/or storage capacity of the project shall be capable of passing the indicated spillway design flood without infringing on the minimum freeboard requirements, provided that a design which includes overtopping of the dam may be authorized if specifically approved by the Board.

(4) The minimum performance standards expressed as magnitude of spillway design flood and minimum freeboard will be assigned to the various size and hazard potential classification determined under 785:25-3-3 as follows:

(b) **Minimum Performance Standards**

MINIMUM SPILLWAY

SIZE	HAZARD	DESIGN FLOOD	MINIMUM FREEBOARD
Small	Low	25% PMF	0 Feet
Small	Significant	40% PMF	0 Feet
Small	High	50% PMF	1 Foot
Intermediate	Low	25% PMF	1 Foot
Intermediate	Significant	50% PMF	1 Foot
Intermediate	High	75% PMF	3 Feet
Large	Low	50% PMF	1 Foot
Large	Significant	75% PMF	1 Foot
Large	High	100% PMF	3 Feet

(c) **Amending minimum freeboard.** The minimum freeboard requirements may be amended by the Board on a case-by-case basis for good cause shown by the owner.

(d) **Probable maximum flood.**

(1) PMF means and refers to the Probable Maximum Flood and is defined as the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the region as listed in Hydrometeorological Report No. 51, National Weather Service.

(2) Since design floods are usually determined by using mathematical computations through computer modeling and since several different acceptable models are available, flood design calculations must fall within plus/minus 5% PMF of the Board's current model results.

(3) The PMF storm should be of appropriate duration to adequately reflect the size and hydrologic characteristics of the watershed in which the dam is located.

(e) **PMF on dam designated for regulation.** A dam which the Board has determined is subject to regulation because of its high hazard potential, although otherwise considered too small, shall be required to safely pass 25% PMF with no minimum freeboard.

(f) **Dams constructed prior to June 13, 1973.** Any dam constructed prior to June 13, 1973 and which is classified as intermediate size and high hazard potential according to 785:25-3-3 shall be required to pass a minimum design of 50% of the PMF. Any dam constructed prior to June 13, 1973 and which is classified as large size and high hazard potential according to 785:25-3-3 shall be required to pass a minimum design flood of 75% of the PMF.

[Source: Amended at 9 Ok Reg 1676, eff 5-11-92; Amended at 12 Ok Reg 2687, eff 7-1-95]

#### **785:25-3-7. Minimum outlet conduit capacities**

(a) **Requirements for outlet conduit capacity shall be as follows:**

(1) All dams subject to the Board's jurisdiction shall have at least one outlet conduit of sufficient capacity to prevent interference with natural streamflow and injury of downstream appropriators and domestic users. Absent evidence to the contrary, the minimum size of the outlet conduits shall be as set forth in subsection (d) of this section.

(2) The height of the outlet conduit shall be no more than five feet (5') above the natural stream channel unless otherwise ordered by the Board. The capacity of the reservoir below the outlet conduit shall be designated as the inactive pool.

(b) **Conduit operation.** All conduits shall be gate- or valve-operated on the upstream side and shall be maintained in an operable condition at all times.

(c) **Conduit design life.** The design life expectancy of the conduit shall be equal to or greater than the design life of the dam.

(d) **Minimum size outlet conduit requirements.** The outlet conduit must be of sufficient size to draw down the entire reservoir to the inactive pool within twenty (20) days, provided that minimum size outlet requirements are as follows:

(1) For less than 100 acre-feet normal pool capacity (at principal spillway), the minimum size of conduit is 6-inch pipe.

(2) For 101 to 150 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 8-inch pipe.

(3) For 151 to 200 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 10-inch pipe.

(4) For 201-250 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 12-inch pipe.

(5) For 251-300 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 14-inch pipe.

(6) For 301-350 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 15-inch pipe.

(7) For 351-500 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 16-inch pipe.

(8) For more than 500 acre-feet normal pool capacity (at principal spillway), the minimum size of outlet conduit is 24-inch pipe.

(e) **Amendments of minimum requirements for good cause.** Minimum size requirements may be amended by the Board for good cause. However, conduit must be of sufficient size to draw down the entire reservoir to the inactive pool within a period of not more than twenty (20) days.

[Source: Amended at 21 Ok Reg 2625, eff 7-1-2004]

#### **785:25-3-8. Measuring devices**

When required by the Board, measuring devices capable of providing an accurate water measurement must be provided to measure the flow of the stream above and below the

reservoir. Permanent staff gages may be required to be placed near the outlet of the reservoir and such other locations as specified by the Board and such gages shall be plainly marked in feet and tenths of feet.

#### **785:25-3-9. Prohibited construction**

No construction or excavation other than that necessary for the operation, maintenance, investigation and monitoring of the dam and reservoir, shall be allowed on a dam or spillway structure or within fifty (50) feet from the line where such dam or spillway structure meets the natural grade unless otherwise ordered by the Board after a showing by substantial, competent evidence that the proposed construction will not affect the integrity of the dam or spillway structure.

[Source: Amended at 9 Ok Reg 1676, eff 5-11-92]

#### **785:25-3-10. Prohibited vegetation and erosion**

Trees and heavy vegetation shall be removed from the slopes and crest of earthen embankments and emergency spillway area. Trees and heavy vegetation shall also be removed from an area a minimum distance from the toe of the embankment of 30 feet. Dams shall be maintained such that internal or external erosion is prevented. If erosion is present it shall be repaired utilizing appropriate engineering practices.

#### **785:25-3-11. Minimum safety factors**

As a guide for use by the Board and by engineers designing new dams, assessing the condition of existing dams or proposing modifications to existing dams, the following safety factors shall be utilized for:

(1) Embankment dams:

LOADING CONDITION	MINIMUM FACTOR OF SAFETY*
Steady seepage at emergency spillway crest	1.5
Rapid drawdown from principal spillway	1.2
Earthquake – reservoir at emergency spillway crest for downstream slope, reservoir at principal spillway for upstream slope	1.0

\*The minimum factor of safety is calculated by the ratio of available shear strength stress required for stable equilibrium

(2) Concrete dams or concrete portions thereof.

LOADING            MINIMUM

CONDITION	FACTOR OF SAFETY ** (by hazard classification of dam)	
Principal spillway level	High and Significant 2.25	Low 2.0
Inflow design flood at maximum pool level	1.75	1.25
Principal spillway level with earthquake	greater than 1.0	greater than 1.0

\*\* These minimum factors of safety apply to the calculations of stress and the shear friction factor of safety within the structure of the rock/concrete interface and foundation

[Source: Amended at 11 Ok Reg 2931, eff 6-13-94]

## SUBCHAPTER 5. APPLICATIONS AND APPROVAL OF CONSTRUCTION

### Section

- 785:25-5-1. Application and fee required
- 785:25-5-2. Plans to be prepared by registered professional engineer
- 785:25-5-3. Content of plans and specifications
- 785:25-5-4. Additional report information
- 785:25-5-5. Notice of hearing
- 785:25-5-6. Affidavit of notice publication
- 785:25-5-7. Protest
- 785:25-5-8. Approval or denial of application

### **785:25-5-1. Application and fee required**

#### (a) **General.**

- (1) Any person who shall desire to construct, enlarge, alter, remove or repair any dam under the Board's jurisdiction shall submit an application upon printed forms which will be furnished by the Board upon request.
- (2) For the purposes of this subchapter, repair shall not be deemed to include routine normal maintenance.
- (3) The maps, plans, drawings, and specifications of the proposed work along with the required fee shall form a part of the application.
- (4) The application and attachments shall be filed in duplicate.
- (5) Notwithstanding the provisions of paragraph (1) of this subsection, *an owner who proposes to construct a new dam classified as having a low hazard potential that will be used primarily for agriculture purposes, and will be designed or constructed with the assistance of a local conservation district or federal agriculture related agency, shall be required only to notify the Board of such construction and file a notice of completion in accordance with 785:25-7-6 [82:110.5].*

- (b) **Signature of applicant.** The application shall be signed as follows:
- (1) If the applicant is an individual, the application shall be signed by the applicant or his duly appointed agent, who shall present satisfactory evidence of his authority to represent the applicant.
  - (2) A joint application shall be signed by each applicant or his duly authorized agent, provided that a joint application by husband and wife may be signed by either party (joint applicants are required to select one among them to act for and represent the others in dealing with the Board).
  - (3) If the application is by a partnership, the applicant shall be designated by the firm name followed by the words "A Partnership" and the application shall be signed by each of the general partners or, if signed by one partner or other agent, a written statement of the agent's authorization to make the application, signed by the other parties of interest, shall be attached to the application.
  - (4) In the case of an estate or guardianship, the application shall be signed by the duly appointed guardian or representative of the estate, and a certified copy of the letter issued by the court shall be attached to the application.
  - (5) In the case of a water district, county, municipality, etc., the application shall be signed by a duly authorized official, and a certified copy of the resolution or other authorization to make the application shall be attached.
  - (6) In the case of a private corporation, the application shall be signed by a duly authorized person and, if not attested by the secretary or assistant secretary, a copy of the authorization shall be attached to the application.
- (c) **Notary public required.** All applicants shall subscribe and swear to the application before a Notary Public, who shall also sign his name and affix his seal to the application.
- (d) **Water rights.** Water rights requested or required in connection with a planned dam or reservoir may be approved based on preliminary information, however, no construction, enlargement, alternation or repair shall proceed until the application required by this Section has been submitted and approved in accordance with the rules of this subchapter and until the water rights required are approved.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93; Amended at 14 Ok Reg 2766, eff 7-1-97]

#### **785:25-5-2. Plans to be prepared by registered professional engineer**

Plans and specifications shall be prepared by a Registered Professional Engineer (59 O.S. 1981, §§475.1 and 475.15) who shall have training and/or experience concerning the analysis, design, and/or construction of dams and reservoirs, or by an engineer of any United States governmental agency acting in his official capacity (82 O.S. 1981, §105.27). However, if it is found that a project does not concern or involve the public welfare or the safeguarding of life, health or property, this requirement may be waived by the Board.

#### **785:25-5-3. Content of plans and specifications**

- (a) The plans and specifications shall, as a minimum, include the following:
- (1) A topographic map of the dam site showing the location of spillway and outlet works. The map shall also show all contiguous property and the owners thereof. The topographic maps for low hazard dams are not required to show test borings, test pits and borrow pits.
  - (2) A profile along the dam axis showing the location, elevation, depth of borings or test pits including logs or bore holes and/or test pits, provided that plans and specifications for low hazard dams are not required to contain such a profile.
  - (3) A maximum cross-section of the dam showing elevation and width of crest, slopes of upstream and downstream faces, thickness of riprap, zoning of earth embankment, location of cutoff and bonding trenches, elevations, size and type of outlet conduit, valves and operating mechanism.

- (4) Area and capacity curves of the proposed reservoir.
  - (5) Detailed drawings showing plans, cross and longitudinal sections of the outlet conduits, valves and controls for operating the same, and trash racks.
  - (6) The discharge capacity in cubic feet per second of the spillway for each foot in water depth above the spillway crest up to the maximum high water level and the formula used in making such determinations.
  - (7) Detailed plans of spillway structures, cross-section of the channel leading to and from the spillway, spillway profile, and procedures for operation of the spillway structure.
  - (8) For high hazard potential classified dams, a breach analysis, and a map showing the breach inundation area utilizing guidelines provide by the Board.
  - (9) A requirement, during the period of construction, for supervision by an engineer as required in 785:25-7-2.
  - (10) A provision that the plans and specifications may not be substantially changed or changed in any material respect without prior written consent of the Board.
  - (11) A provision stating in detail all matters necessary to ensure that construction is accomplished in a responsible manner and that needed control is exercised by an engineer as required in 785:25-7-2 to ensure construction of a safe structure.
- (b) The size of all plans and maps filed shall not be more than 11" x 17" and shall be drawn with an adequate number of views, in proper dimensions, and to a sufficiently large scale so that the plans and maps may be readily interpreted and studied. In addition to the plans and maps required to be filed, if plans and maps larger than 11" x 17" are submitted for review purposes, the larger plans and maps will not be retained by the Board.

#### **785:25-5-4. Additional report information**

An engineer's report giving details necessary for analysis of the structure and appurtenants shall be submitted with the plans and specifications. Included as a part of the report shall be the following:

- (1) Formula and assumptions used in design;
- (2) Hydrologic data used in determining runoff from the drainage areas including copies of any records that the applicant has of flood flows and precipitation for the region;
- (3) Foundation and materials investigations; and
- (4) All other information which would aid in evaluating the design.

#### **785:25-5-5. Notice of application**

##### **(a) Notice preparation**

- (1) After an application has been duly filed and accepted, the Board may require that applicants for permits involving significant and high hazard-potential dams publish notice as it instructs. If such notice is required, a notice will be prepared by the Board and include information describing the application, the name and address of the applicant and opportunities for public comment.
- (2) The notice will be mailed to the applicant with a letter of instructions as to the publication. Prior to publication the applicant shall check the notice for any errors.

##### **(b) Publication in newspaper**

- (1) The notice of application, if required, shall be published once a week for two (2) consecutive weeks on the dates designated by the Board in a newspaper having general circulation in the county where the dam is located.
- (2) The last notice shall be published at least ten (10) days prior to the hearing date.
- (3) The applicant shall bear the cost of publication and shall see that the notice is reproduced accurately in the newspaper.
- (4) If the Board instructs the applicant to mail notice, such mailing shall be by certified mail, return receipt requested.

[Source: Amended at 9 Ok Reg 1677, eff 5-11-92]

**785:25-5-6. Affidavit of notice publication and mailing**

(a) **Affidavit of publication required.** If the Board has required publication of notice, then the applicant shall file the sworn statement of the publisher with the Board before the application is considered by the Board. The affidavit shall state the dates on which the notice was published in the newspaper.

(b) **Failure to furnish affidavit.** Failure to furnish evidence of publication or of mailing of the notice in the manner required on or before the date the Board considers the application or may be deemed evidence of abandonment of the application.

[Source: Amended at 9 Ok Reg 1677, eff 5-11-92]

**785:25-5-7. Public Comment**

(a) Any interested person may submit written comments on any application.

(b) If the Board determines there is significant public interest in an application, it may schedule a public meeting to receive oral comments. Any interested person may appear and present comments.

(c) The Board shall consider the public comments when evaluating the application, and shall respond or prepare and publish a response to those comments, and may direct the applicant to respond.

[Source: Amended at 9 Ok Reg 1677, eff 5-11-92]

**785:25-5-8. Approval or denial of application.**

(a) After evaluating the application, if it is determined that the proposed construction, enlargement, alteration, or repair of any dam is safe and not a menace to life and property and is in conformity with all statutory requirements and the rules in this Chapter, said application shall be approved by the Board upon such conditions as the Board may prescribe.

(b) If it is determined that the proposed construction, enlargement, alteration, or repair of any dam is *unsafe and a menace to life and property*, [82:105.2] said application shall be denied by the Board.

(c) The applicant shall be notified in writing of the Board's decision

(d) If the application is approved, no impoundment of water by the dam may be made until all additional requirements of these rules and regulations are met unless the approved construction is for an existing dam and the construction may be carried out without emptying the water in the reservoir.

(e) The applicant shall commence construction within two (2) years after the date of approval of the plans and specifications or the approval will be deemed to have lapsed and shall thereafter be null and void, provided that the applicant may request an extension of time to commence such construction and if the extension is granted, the approval will not be deemed to lapse during the time extended.

**SUBCHAPTER 7. POST APPROVAL ACTIONS**

Section

785:25-7-1. Inspection during construction

785:25-7-2. Inspection fee

785:25-7-3. Deficiencies during and after construction

785:25-7-4. Supervision of construction by owner

785:25-7-5. Changes to plans and specifications after approval

785:25-7-6. Notice of completion and filing of supplementary drawings or descriptive matter

785:25-7-7. Warning and evacuation plans

785:25-7-8. Certificate of completion

**785:25-7-1. Inspection during construction**

During the construction, enlargement, repair, alteration, or removal of any dam or reservoir, periodic inspections may be made by the Board and the owner shall be required to perform at his expense such works or tests as necessary to disclose information sufficient to enable the Board to determine that substantial conformity with approved plans and specifications is being secured, which shall include adequate inspection, at owner's expense, to satisfy the Board of substantial compliance to approved plans, drawings, and specifications.

**785:25-7-2. Inspection fee**

(a) Fees for any such inspection must be paid by the owner upon submission of an itemized statement by the Board.

(b) Fees for inspections not paid by the owner within thirty (30) days after notice by the Board, *shall be a lien against any property of such owner, to be recovered by suit instituted by the District Attorney of the county at the request of the Board. Such liens shall be superior in right to all mortgages or other encumbrances, except ad valorem tax liens, placed upon the land and the water appurtenant thereto or used in connection therewith.* [82:105:27]

**785:25-7-3. Deficiencies during and after construction**

(a) If, after any inspections, investigations, or examinations, or at any time after completion, it is found that amendments, modifications, or changes to the work performed pursuant to the approved plans and specifications are necessary to protect life and insure safety of the dam or to meet acceptable dam safety engineering practices, including those found in references set forth in 785:25-3-4, the owners shall be required to submit a revised application.

(b) If conditions are revealed which will not permit the construction of a safe dam or reservoir, the prior approval may be revoked or modified by the Board after notice and hearing.

(c) After the inspection, investigation, or examination, the Board shall, in a report to the owner, specify the deficiencies and allow a reasonable time for correcting the deficiencies.

[Source: Amended at 9 Ok Reg 1677, eff 5-11-92]

**785:25-7-4. Supervision of construction by owner**

After receiving approval of plans and specification, supervision of construction by the owner shall be as follows:

(1) The work of construction, enlargement, repair, alteration or removal of dam or reservoir, for which approved application, plans, drawings, and specifications are required, shall be under the responsible charge of an engineer as defined in 785:25-5-2 who shall certify, upon completion and prior to impoundment of any waters, that such construction, enlargement, repair, alteration, or removal was done in accordance with approved plans, drawings, and specifications.

(2) Final approval in writing by a United States governmental agency shall be required for those structures designed by and/or constructed under the supervision of personnel of that agency.

**785:25-7-5. Changes to plans and specifications after approval**

(a) If during construction, enlargement, repair, alteration, or removal of any dam or reservoir, it is found that amendments, modifications, or changes that increase the normal or maximum water elevations, increase spillway releases or discharges, or that increase potential damages downstream will need to be made to the plans and specifications as previously approved by the Board, an amended application including maps, plans, drawings, and specifications shall be submitted to the Board for approval.

(b) The owner may be required to publish notice of the date, place and time when the Board will consider the matter as was done for the original application.

(c) Other amendments, modifications or changes shown in as-built plans and specifications may be accepted by Board staff.

[Source: Amended at 9 Ok Reg 1677, eff 5-11-92]

#### **785:25-7-6. Notice of completion and filing of supplementary drawings or descriptive matter**

Immediately upon completion of a new dam or reservoir or enlargement or repair of a dam or reservoir, the owner shall give notice of completion and as soon thereafter as possible shall file supplementary drawings or descriptive matter showing or describing the dam or reservoir as actually constructed, including the following:

- (1) A record of all grout holes and grouting;
- (2) A record of permanent location points and bench marks;
- (3) A record of tests of concrete soils, or other materials used in the construction of the dam or reservoir; and
- (4) Any other items which may be of permanent value and have a bearing on the safety and performance of the dam or reservoir.

#### **785:25-7-7. Emergency action plans**

(a) Owners of existing or proposed dams classified as high hazard potential, regardless of the size of such dams, and any other dam as determined by the Board, shall create and maintain an EAP that utilizes the recommendations, as determined by the Board, of the "Federal Guidelines for Dam Safety, Emergency Action Planning for Dam Owners," published August 2004 by the Federal Emergency Management Agency. The owner shall submit a copy of the EAP to the Board.

(b) Owners shall annually review their EAPs to assure they are still accurate and applicable, and submit any updates to the EAPs to the Board.

#### **785:25-7-8. Certificate of completion**

##### **(a) Issuance; revocation; amendments.**

Certificates of completion shall be issued and may be revoked or amended as follows:

- (1) Upon filing of notice of completion of works by the applicant, the Board shall, within sixty (60) days, inspect or cause the dam to be inspected. The Executive Director shall approve the issuance of a certificate of completion if, based on the certification from the engineer in the Notice of Completion, the dam or reservoir is safe to impound water within the limitations prescribed in the certificate. However, no certificate of completion shall be issued until receipt of fee for certificate and all invoiced filing and inspection fees.
- (2) Every certificate of completion issued shall contain *the date of approval of plans and specifications for the dam, date construction was completed on said dam, and* [82:110.8] any such terms and conditions as the Board may prescribe. The Board may revoke any such certificate whenever it is determined that the dam constitutes a danger to life and property. Whenever such action is necessary to safeguard life and property, the terms and conditions of any such certificate may be amended and a new certificate issued containing the revised terms and conditions.
- (3) *Certificates of completion of works from the . . . Board shall be required before any water may be impounded by a new dam or before water may be impounded at an elevation higher than that previously authorized by the Board at an existing dam which has been modified* [82:110.8]

(b) **Notice and action.** After the issuance of the certificate of completion, the Board shall provide notice to the owner, allowing opportunity for a hearing, prior to the issuance of any order revoking or modifying the previous Board certificate.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93]

## SUBCHAPTER 9. ACTIONS AFTER CONSTRUCTION

### Section

- 785:25-9-1. Inspections of dams
- 785:25-9-2. Records and reports of owner
- 785:25-9-3. Correcting deficiencies (not creating imminent peril)
- 785:25-9-4. Notice and action (Revoked)
- 785:25-9-5. Correction of deficiencies creating imminent peril
- 785:25-9-6. Request for inspection of dams by other parties
- 785:25-9-7. Recovery of costs and expenses
- 785:25-9-8. Emergency repairs

### **785:25-9-1. Inspections of dams**

(a) **Oversight vested in Board.** Oversight of the maintenance and operation of constructed dams and reservoirs insofar as necessary to safeguard life and property from injury by reason of the failure thereof is vested in the Board.

(b) **Periodic inspections.** Except for low hazard potential dams, owners are required to have their dams inspected by qualified persons periodically according to a schedule prepared by the Board to meet the requirements of paragraphs (1) and (2) of this subsection and shall include review of the Emergency Action Plan and of the operation and maintenance manual to assure they are still accurate and applicable. Periodic inspections of dams shall be scheduled according to hazard potential classifications as follows:

(1) High hazard. High hazard potential dams shall be inspected at least once annually.

(2) Significant hazard. Significant hazard shall be inspected at least once every three years.

(3) Low hazard. Low hazard potential dams shall be inspected at least once every five years, which inspection shall be conducted by the owner and shall consist of a review of the hazard classification on forms provided by the Board.

(c) **Expense of periodic inspections.** Periodic inspections shall be at the owner's expense (except for low hazard potential periodic inspections) and shall be conducted by a Registered Professional Engineer hired by the owner who shall have training and/or construction of dams and reservoirs, or by an engineer of any United States governmental agency acting in his official capacity. Provided that inspections of low hazard classification dams may be conducted by persons who are not Registered Professional Engineers but who are trained in inspecting dams. If a periodic inspection is conducted by the owner or his representative, a written inspection report shall be submitted to the Board not later than 30 days after the inspection and shall contain information as set forth in a Board's hazard verification report.

(d) **Unscheduled inspections.** Unscheduled (non-periodic) inspections such, as those conducted in response to complaints, after major heavy precipitation events or in emergency situations, may be conducted by Board staff, or the Board may require the owner to conduct and unscheduled inspection at the owner's expense. No fee for such inspection shall be due, provided that a request for inspection by other parties shall be governed by 785:25-9-6.

(e) **United States dams not subject to inspection.** Any dam *constructed by the United States or its duly authorized agencies shall not be subject to inspection while under the supervision of officers or the United States.* [82:105.27]

(f) **Board to notify when inspection due; violation.** The Board shall notify persons shown by its records to own the dam of the date the periodic inspection of the dam is due. Such notice

shall require the owner to advise the Board by a date specified when an engineer retained by the owner will conduct the inspection. Failure to so notify the Board or to have the inspection completed shall constitute a violation of Board rules.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93; Amended at 11 Ok Reg 2931, eff 6-13-94; Amended at 12 Ok Reg 2687, eff 7-1-95]

#### **785:25-9-2. Records and reports of owner**

(a) The owner of a dam or reservoir or his agent shall fully and promptly advise the Board by telephone or any sudden or unprecedented flood or unusual or alarming circumstances or occurrence affecting the safety of the dam or reservoir. Within ten (10) days after such flood event or circumstance, the owner or owner's agent shall provide a written report of any damages to the dam and of the need to make any repairs.

(b) The Board may require owners to keep records of and to report on maintenance, and staffing of any dam or reservoir if, in the opinion of the Board, such records and reports are necessary to safeguard life and property.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-9-3. Correction of deficiencies (not creating imminent peril)**

(a) *When an owner fails, neglects or refuses to comply with the Oklahoma Dam Safety Act, rules of this chapter, or orders of the . . . Board, and there is no imminent peril to the public health or welfare shown the Board may, after notice and opportunity for hearing, issue an order requiring such owner to take whatever action the Board deems necessary to place the dam in a safe condition, meet the requirements of the Oklahoma Dam Safety Act, rules of the Board, or the previous orders of the Board [82:110.10].*

(b) *Actions which can be ordered may include but are not limited to lowering the level of or removing all water in the reservoir, providing an adequate warning to the public downstream, repair or modification of the existing dam after having the appropriate application for approval of plans and specifications granted, cease all construction work on a dam, and implementation of an appropriate operation and maintenance plan [82:110.10].*

(c) If after such hearing it shall be determined to order such amendments, modifications or changes, the owner shall submit, if necessary under 785:25-5-1, plans and specifications for Board approval. Upon approval of the plans and specifications, the Board shall direct the time within which such modification, alteration, or construction shall be completed.

(d) In determining whether amendments, modifications or changes are necessary to protect life and insure safety of the dam, the Board shall take into consideration the possibility that the dam and reservoir might be endangered by overtopping, seepage, settlement, erosion, cracking, earth movement, or other conditions which exist in any area in the vicinity of the dam or reservoir.

(e) Amendments, modifications or changes may include routine maintenance items that do not require plans and specifications, such as removal of trees on an earthen embankment, establishing vegetation cover to prevent erosion, or updating a warning and evacuation plan, etc. Amendments, modifications or changes may also include alterations or repairs which require submittal and approval of plans and specifications, including but not limited to changing the spillway design capacity, rebuilding embankments, etc.

[Source: Amended at 9 ok Reg 1678, eff 5-11-92; Amended at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-9-4. Notice and action (Revoked)**

[Source: Revoked at 10 Ok Reg 3287, eff 6-25-93]

**Agency Note (1):** The language in 785:25-9-4 has been moved to 785:25-7-8(c).

#### **785:25-9-5. Correction of deficiencies creating imminent peril**

(a) *When an owner fails, neglects or refuses to comply with the Oklahoma Dam Safety Act, rules of this Chapter, or orders of the Board, and there is an imminent peril to the public health or welfare shown, the Executive Director of the Board, or Assistant Director in the absence of the Executive Director, may, without notice or opportunity for hearing, issue an emergency order requiring such owner to take actions the Board deems necessary to place the dam in a safe condition. Such emergency order shall indicate the finding of imminent peril and shall specify the actions that are to be taken immediately. The order shall also specify a time and place for hearing to be held after such actions are taken. [82:110.10].* In determining whether an imminent peril to the public health or welfare exists, the Board may consider the following:

(1) The condition of any dam or reservoir is so dangerous to the safety of life or property as not to permit time for the issuance and enforcement of an order after notice and hearing relative to maintenance or operation;

(2) Passing imminent floods threaten the safety of any dam or reservoir.

(b) The Board may, if the owner cannot be served or is otherwise unable to act, immediately employ remedial measures. The remedial measures the Board may take in such an emergency include but is not limited to any of the following:

(1) Lower the water level by releasing water from the reservoir;

(2) Completely empty the reservoir, or

(3) Take such other steps as may be essential to safeguard life and property.

(c) The cost and expenses of the remedial measures taken by the Board, including cost of any work done to render a dam or reservoir or its appurtenances safe, shall be recoverable by the State from the owner by action brought by the Board in the district court of the district wherein the dam or reservoir or any part thereof is situated.

[Source: Amended at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-9-6. Request for inspection of dams by other parties**

*Upon the request of any party, accompanied by the estimated cost of inspection, the Board shall cause any alleged unsafe works to be inspected. If the works are found to be unsafe, the money deposited by such party shall be refunded and the fee for inspection shall be paid by the owner of such works. [82:105.27]*

[Source: Amended at 11 Ok Reg 2931, eff 6-13-94]

#### **785:25-9-7. Recovery of costs and expenses**

The costs and expenses incurred by the Board for inspection of any dam found to be unsafe shall be paid by the owner of such works and if not paid by the owner of the dam within thirty (30) days after the decision of the Board shall be a lien against any property of such owner and be recoverable by the State from the owner by suit instituted by the District Attorney of the county at the request of the Board. Such liens shall be superior in right to all mortgages or encumbrances, except ad valorem tax liens placed upon the land and the water appurtenant thereto or used in connection therewith. [82:105.27]

#### **785:25-9-8. Emergency repairs**

(a) If conditions exist which may cause loss of life if repairs are not made immediately, emergency repairs may be made by the owner without prior submittal of the plans and specifications required under 785:25-5-1.

(b) The Board shall be notified of the emergency and the repairs to be made within 48 hours and plans and specifications shall be furnished to the Board for review as required in 785:25-5-1 as soon as possible.

#### **785:25-9-9. Breach analysis for existing dams**

If an existing dam does not have a breach analysis, and a failure might put lives at risk downstream, then after the next regularly scheduled inspection the Board's Engineer may direct the owner to provide a breach analysis and breach inundation map, utilizing modeling and analysis guidelines provided by the Board, and according to a reasonable schedule of compliance.

**785:25-9-10. Reclassification of the hazard-potential class of a dam**

- (a) The Board may reclassify the hazard-potential classification of a dam at any time based on an inspection and downstream hazard evaluation.
- (b) If the Board determines that the hazard-potential class of a dam should be increased to a greater hazard-potential classification, then the Board shall notify the owner of that finding and of the upgrade options that are available, and set a reasonable deadline, based on the circumstances, for the owner to:
- (1) file an application to upgrade the dam to meet the requirements for a greater hazard-potential classification; or
  - (2) seek an individual proceeding to contest the finding; or
  - (3) perform a breach analysis and inundation mapping or, for existing dams that lack a breach analysis, through the use of acceptable mathematical computations applied to the downstream area from the dam to a point where the necessary design flood and breach is contained within the main stream channel, utilize modeling and analysis guidelines provided by the Board to show the dam should not be reclassified to the greater hazard-potential classification.

**785:25-9-11. Upgrading dams due to downstream development**

- (a) **Alternatives.** Instead of upgrading the dam using structural methods, an owner may seek to implement alternative methods. Such alternative methods shall include but is not limited to the following:
- (1) a current breach analysis and hydrologic study that demonstrates a lesser hazard-potential classification is correct; or
  - (2) a current breach analysis and design flood analyses that demonstrate existing downstream developments would not be adversely affected by more than one foot difference between breach and non-breach simulations in the affected area, or records showing the downstream development has been dedicated to non-residential and non-commercial use; or
  - (3) a plan to permanently remove the dam.
- (b) **Schedule of Compliance.** An owner may seek a compliance schedule with the Board that sets the timeframes for various stages of work to be performed. In considering such applications to upgrade on a compliance schedule the Board shall evaluate whether the current dam will not significantly affect the public safety during the compliance period.

**SUBCHAPTER 11. ADMINISTRATIVE PENALTIES AND PROCEDURES**

Section

- 785:25-11-1. Applicability and authority  
785:25-11-2. Notice of violation and proposed assessment  
785:25-11-3. Determined amount of penalty  
785:25-11-4. Procedures for penalty assessment

**785:25-11-1. Applicability and authority**

- (a) *The Board may impose administrative penalties against owners of dams who fail, refuse or neglect to comply with the provisions of the Oklahoma Dam Safety Act, rules of the Board*

promulgated pursuant to the Oklahoma Dam Safety Act, and *orders of the Board*. *Such administrative penalties shall be imposed only after notice and opportunity for hearing on the proposed imposition of such penalties* [82:110.10].

(b) *The notice and opportunity for hearing required by this Section may be combined with the notice and hearing required in* [82:110.10] 785:25-9-3.

(c) *The penalties shall not exceed Five Hundred Dollars (\$500.00) per day for each violation* [82:110.10].

(d) *Each day a violation continues shall constitute a separate violation* [82:110.10]

[Source: Added at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-11-2. Notice of violation and proposed assessment**

The notice of proposed assessment of administrative penalties shall inform the respondent of the provisions of the Oklahoma Dam Safety Act or of the rule or order of the Board at issue and the proposed amount of the penalty. A letter, petition, notice of violation, consent order or final order may constitute a notice of proposed assessment for purposes of initiating administrative penalty proceedings if it meets the requirements of this section.

[Source: Added at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-11-3. Determining amount of penalty**

In setting the administrative penalty amount, the Board may consider the following:

(1) The nature, duration and number of previous instances of failure by respondent to comply with requirements of law relating to dam safety and requirements of Board rules and orders.

(2) The efforts of the owner to correct deficiencies or other instances of failure to comply with the requirements of Board rules and orders subject of the proposed penalty.

(3) The cost of carrying out actions required to meet the requirements of law and Board rules and orders;

(4) The size and hazard classification of the dam;

(5) Other factors deemed appropriate by the Board.

[Source: Added at 10 Ok Reg 3287, eff 6-25-93]

#### **785:25-11-4. Procedures for penalty assessment**

(a) The notice of proposed assessment of administrative penalties shall specify a time, date and place of a hearing.

(b) Failure of respondent to appear at the hearing shall be deemed to constitute an agreement with the imposition of the penalty in the amount proposed as set forth in the notice, and proposed findings, conclusions and order shall not be prepared in that instance. The Board and respondent may also agree to an informal disposition of the matter. In either situations, the matter shall be presented to the Board for consideration of entering a final order assessing the administrative penalty.

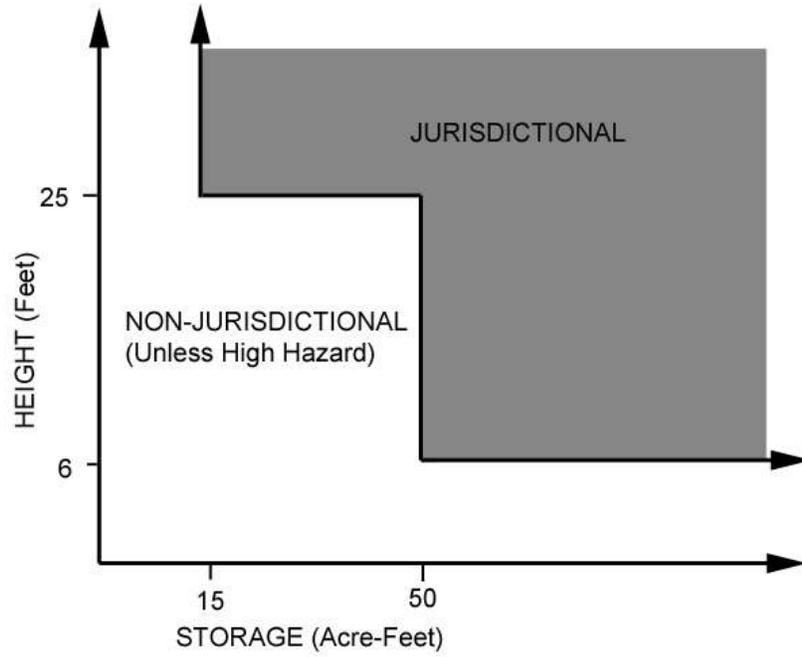
(c) The administrative penalty is due and payable immediately upon issuance of the final order, unless otherwise provided therein.

(d) If the Board believes that violations are continuing after issuance of the administrative penalty order, it may seek the issuance of additional orders to assess penalties occurring in the period after issuance of the previous assessment orders.

[Source: Added at 10 Ok Reg 3287, eff 6-25-93]

**APPENDIX A.  
JURISDICTION OF BOARD BY SIZE AND HAZARD CLASSIFICATION**

**JURISDICTION OF BOARD BY SIZE AND HAZARD CLASSIFICATION**



**T**he Oklahoma Water Resources Board (OWRB) coordinates the state's Oklahoma Dam Safety Program to ensure the safety of more than 4,600 of our dams in the state, especially those that could impact downstream life and property. The most common requirements of the Dam Safety Program are:

- \* Yearly inspections for "High-hazard" dams (likely to cause loss of human life)
- \* Inspections every 3 years for "Significant-hazard" dams (likely to cause high economic loss)
- \* Inspections every 5 years for "Low-hazard" dams (likely to cause minimal economic loss)
- \* Application to construct a new dam
- \* Approval of plans for modification of an existing dam
- \* Emergency Action Plan for High-hazard dams (see below)

**Training** - The Dam Safety Program coordinates periodic training sessions and workshops on dam safety issues and regulations for dam owners and engineers. OWRB strongly encourages such persons to attend these valuable sessions (schedules are posted on our website\*)

**Liability** - It is important to be aware that any person or company that owns, operates, or maintains a dam is liable for some or all damages due to a failure of that dam even if an unsafe condition existed prior to a new dam owner's term of ownership. Thus, the potential owner must carefully inspect the structural integrity of any dam prior to purchase and then inspect, maintain, and repair it thereafter.

**Small Dams** - Construction application may not be necessary if the dam will be less than 25 feet in height above the stream bed or if the lake impounded by the dam will less than 50 acre-feet of water; however, approval is required irregardless of size if there are houses or habitable structures located below the dam.

If you plan to construct a dam always check with a professional engineer, the NRCS, or with the OWRB Dam Safety Program engineer before you begin construction to determine if you need to file an application with the State.

## **Emergency Action Plans**

It is the responsibility of each high-hazard dam owner to develop an Emergency Action Plan (EAP) tailored specifically to that dam. The EAP assigns critical roles including surveillance, notification, and identification of the dam break flood zone as well as develop a critical contact list in order to protect downstream lives and property. A written EAP must be submitted to and approved by the OWRB and

subsequently filed with the local Civil Defense authorities. The OWRB publication, "Emergency Action Plan Guidelines for High Hazard-Potential Dams" is strongly recommended for dam owners. The Guideline and a fillable EAP form are available on OWRB's website\*.

## **Dam Safety Inspections**

The regular inspection of dams is the heart of your care and maintenance program. Early detection and remedy are essential for preserving the integrity of the dam. Technical inspections must be performed by professional engineers familiar with the design and construction of dams and should include assessments of structure safety.

Maintenance inspections are performed more frequently than technical inspections in order to detect, at an early stage, any developments that may be detrimental to the dam. Downstream hazard verification inspections must also be performed to determine if there has been any construction of homes, building, or other structures downstream of their dam which could raise the dam's hazard classification. This has important implications for the dam owner as it could result in a change of how often the dam must be inspected and require structural modifications to the dam.



*NRCS Sugar Creek Site # 44 dam, Caddo Cnty, OK  
washed out from heavy rains*

For further information, OWRB Dam Safety publications and online forms visit our website at:

\* [www.owrb.ok.gov/damsafety.php](http://www.owrb.ok.gov/damsafety.php)

# OKLAHOMA

## Citation

Oklahoma dam safety laws are contained in 82 O.S. § 110, last amended in 1992. Regulations are found in the Oklahoma Water Resources Board Rules, Chapter 25, originally adopted in 1973 and last revised in 1997.

## Definitions/Dam Classifications

*Dam* means any artificial barrier, together with appurtenant works, which does or may impound or divert water (Rules 785:25-1-2). A dam is regulated if it is 25 feet or more in height or has an impounding capacity of 50 acre-feet or more. No obstruction determined to be designated primarily for road fill shall be considered a dam (Rules 785:25-3-1[6]).

*Dam height* is measured from the natural bed of the stream or watercourse at the downstream toe of the barrier or from the lowest elevation of the outside limit of the barrier if it is not across a stream channel or watercourse, to the maximum possible water storage elevation.

Dam classifications are based on size of the structure and the potential for hazards (Rules 785:25-3-3).

### Size Classification

Size	Maximum Storage (ac-ft)	Maximum Height (ft)
Small	less than 10,000	less than 50
Intermediate	between 10,000 - 50,000	between 50 - 100
Large	greater than 50,000	greater than 100

### Hazard Potential Classification

Category	Loss of Life	Economic Loss
Low	none	minimal
Significant	none	appreciable
High	yes	excessive

## Jurisdiction/Powers of Department

State dams fall under the jurisdiction of the Oklahoma Water Resources Board, hereafter referred to as "the Board". Title 82 of the Oklahoma Statutes 1981, section 1085.2, as amended, requires the Board to adopt rules and regulations deemed necessary to the exercise of any powers conferred upon it.

The Board is empowered to issue permits and review and approve applications for the construction, enlargement, alteration, or repair of any dam (Rules 785:25-5-1). The Board's responsibility over dams shall be limited to dams with a height of twenty-five feet or more, or those with an impounding capacity of fifty acre-feet or more (Rules 785:25-3-1).

The Board is empowered to inspect dams during construction (Rules 785:25-7-1) and after construction is completed (Rules 785:25-7-3). The Board has the power to cite noncompliance and call for remedial work (Rules Chapter VII730.4) and may invoke judicial actions if necessary (Rules 785:25-11-1).

The Board has the power to immediately employ remedial measures in the event of a dam emergency (Rules 785:25-9-5).

## Permit/Approval Process

A filing fee must be submitted with each application to construct, enlarge, alter, or repair a dam, based on estimated cost of construction (Rules Chapter III305.5).

<b>Estimated Cost</b>	<b>Filing Fee</b>
\$20,000 or less	\$ 100.00
\$20,001-\$99,999	\$200.00
\$100,000-\$999,999	\$500.00
\$1,000,000 or more	\$1,000.00

Plans and specifications are to be prepared by a registered professional engineer (Rules 785:25-5-2).

Applicants for a permit must submit an application upon printed forms, which will be furnished by the Board upon request. The maps, plans, drawings, and specifications of the proposed work along with the filing fee shall form part of the application (Rules 785:25-5-1).

In addition, an engineer's report giving details necessary for analysis of the structure and appurtenances shall be submitted with the plans and specifications (Rules 785:25-5-4). After an application has been filed, a notice will be prepared by the Board setting forth the time, date, and place for hearing the application. Protests regarding the application may be heard at this time. The Board will then render its decision (Rules 785:25-5-7).

Rules 785:25-3-5 and 785:25-3-6 establish minimum design standards as well as minimum spillway performance standards which all dams are required to meet. The owner is required to pay all fees and is responsible for any remedial work (Rules 785:25-9-5).

## Inspection Process

### State

Supervision over the maintenance and operation of constructed dams and reservoirs insofar as necessary to safeguard life and property is vested in the Board (Rules 785:25-9-1). The rules give the Board responsibility for carrying out routine inspections of every dam under their jurisdiction. Periodic inspections of dams shall be scheduled according to hazard classification as follows:

- High Hazard - At least once annually
- Significant Hazard - At least once every three years
- Low Hazard - At least once every five years

Costs and expense incurred by the Board for inspecting a dam found to be unsafe are the responsibility of the owner. A lien shall be placed on the property if the owner does not pay within 30 days of the Board's decision and expenses shall be recovered by suit.

### Owner

Periodic inspections shall be at the owner's expense and shall be conducted by Board staff, a registered professional engineer, or an engineer of any United States governmental agency acting in his official capacity. Some low hazard dams may be exempt from the periodic inspection (Rules 785:25-9-1). Rule 785-25-9-2 requires the owner or his agent to "fully and promptly advise the Board of any sudden or unprecedented flood or unusual or alarming circumstances or occurrence affecting the safety of the dam or reservoir".

During the construction, enlargement, repair, alteration, or removal of any dam, periodic inspections may be made by the Board and the owner shall be required to perform at his expense such works or tests as necessary to disclose information sufficient to enable the Board to determine that substantial conformity with approved plans and specifications is being secured (Rules 785:25-7-1).

### **Violations/Penalties**

Every person shall be guilty of a misdemeanor who violates any of the provisions of the laws or of any order, rule, or regulation of the Board issued pursuant thereto, where a copy of the order, rule, or regulation has been served upon said person by certified mail and said person fails to comply therewith within the time provided, or within ten days of such service if not otherwise provided. In the event of a continuing violation, each day that the violation continues constitutes a separate offense (Rules 785:25-1-3).

### **Emergencies**

The Board may, without notice and hearing issue an emergency order requiring remedial measures to be taken necessary to protect life and property. If the owner cannot be served or is otherwise unable to act, the Board may immediately employ remedial measures. In applying remedial measures, the Board may in emergency do or cause to be done any of the following:

- (a) Lower the water level by releasing water from the reservoir,
- (b) Completely empty the reservoir, or
- (c) Take such other steps as may be essential to safeguard life and property.

The cost and expenses of the remedial means, including cost of any work done to render a dam safe, shall be recoverable by the State from the owner by action brought by the Board in the district court of the district wherein the dam is situated (Rules 785:25-9-5).

Rule 785:25-7-7 requires owners of existing or proposed dams classified as high hazard to provide an adequate warning system and evacuation plan to protect downstream lives and property. The plan is to be approved by and filed with the local Civil Defense authorities. The plan must also be filed with the Board.

### **Liability**

Owners of dams have the responsibility to provide for the safety of such works by making any necessary changes to put the works in a safe condition (Rule 785:25-11-1).

Title 51.05 Supp. 1990 Section 155 exempts the state from liability if a loss or claim results from inspection power including the failure to make an inspection or the completion of an inadequate or negligent inspection.

### **Oversight**

As allowed by and subject to compliance with the requirements imposed under the Oklahoma Administrative Procedures Act (75 O.S. 1981, Sections 301326), any interested party may request rehearing, reopening or reconsideration of any final Board action, decision or Order (Rule 785:4-9-3).

### **Miscellaneous**

Dams constructed by the United States or its duly authorized agencies shall not be subject to inspection while under the supervision of the officers of the United States (Rules 785:25-9-1).

## E.36. Oregon



**FEMA**



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### WATER RESOURCES DEPARTMENT

#### DIVISION 20

#### DAM SAFETY

#### 690-020-0000

##### Purpose and Applicability

(1) These rules describe the standards and requirements under which the department will administer and enforce the design, construction, maintenance, inspection, and fees regarding dams in Oregon. The purpose is to provide the guidance necessary for dams to be constructed and operated in a manner that will ensure the protection of life and property and to provide the department with the resources necessary to manage and support the construction and safe operation of dams in accordance with these rules.

(2) These rules apply to:

(a) Dams that are not subject to ORS 540.350–540.390 as described in 540.400.

(b) Dams that are subject to ORS 540.350–540.390 and which exceed the statutory limits as described in ORS 540.400(1) & (2).

(3) These rules do not apply to metal or reinforced concrete water storage tanks or various types of tanks that are part of water treatment facilities.

Stat. Auth.: ORS 540.350 - 540.400, 536.050

Stats. Implemented: ORS 183, 540, 536

Hist.: WRD 12-1986, f. & ef. 10-3-86; WRD 12-1994, f. & cert. ef. 11-7-94; Renumbered from 690-020-0021, WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

**690-020-0021** [Renumbered to **690-020-0000**]

#### 690-020-0022

##### Definitions

The following definitions apply in OAR 690, Division 20:

(1) “Abutment” means a natural valley or canyon side against which the dam is built;

(2) “Acre-foot” means the equivalent volume of one acre covered with one foot of water (325,900 gallons);

(3) “Conduit” means a closed conveyance used to release water through a dam;

(4) “Cutoff Trench” means a trench excavated beneath the dam foundation and backfilled with low permeability material to retard water seepage;

- (5) “Dam” means a hydraulic structure built above the natural ground grade line that is used to impound water. Dams include wastewater lagoons and other hydraulic structures that store water, attenuate floods, and divert water into canals;
- (6) “Dam Crest” means the top of the dam;
- (7) “Department” means the Oregon Water Resources Department;
- (8) “Director” means the Director of the Oregon Water Resources Department;
- (9) “Embankment” means an engineered earth fill;
- (10) “Emergency Spillway” means an overflow structure constructed to bypass flood water and prevent overtopping the dam crest. Often, dams have two spillways. The lower elevation spillway that spills first is referred to as the principle spillway. The higher elevation spillway is referred to as the emergency spillway;
- (11) “Foundation” means the ground surface upon which a dam is constructed;
- (12) “Freeboard” means the vertical distance between the designed high-water level in the reservoir and the dam crest;
- (13) “Gate” or “Valve” means a permanent device for regulating water flow through the dam;
- (14) “Hazard Rating” means the rating established by the department for a large dam that pertains to the potential level and degree of damage to life and property downstream of a dam in the event dam failure results in a catastrophic release of water;
- (15) “Large Dam” for dam safety purposes, means a dam with a height of 10 feet or more and impounding 3,000,000 gallons (9.2 acre-feet) or more of water;
- (16) “Significant dam work” means an activity to repair, rehabilitate, enlarge or otherwise alter a dam in which: 1) at least 30% of the fill material is impacted by the activity, 2) a spillway is being enlarged or repaired that affects the height or hydraulics of the spillway, 3) dam height and/or reservoir size is being increased, 4) a low level outlet conduit or inlet gate is being reworked with excavation or 5) any other activity that could affect the integrity of the dam or its auxiliary works;
- (17) “Small dam” for dam safety purposes, means a dam with a height of less than 10 feet or impounding less than 3,000,000 gallons (9.2 acre-feet) of water; and
- (18) “Tank” means a fully-enclosed (bottom and sides) hydraulic structure made from metal, reinforced concrete, rigid fiberglass, or plastic that provides its own water-sealing and structural stability.

Stat. Auth.: ORS 183 & 540

Stats. Implemented: ORS 183 & 540, 536

Hist.: WRD 12-1986, f. & ef. 10-3-86; WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

#### **690-020-0025**

#### **General Requirements for all Dams**

- (1) The director may require any information or data in addition to that outlined herein which the director finds necessary for determining the safety of the proposed structure.
- (2) Whenever possible, precipitation and runoff records shall be submitted as part of the design for new or significant dam work on existing dams. If records are not available for the basin in which the dam is located, the hydrological/hydraulic criteria used in the design shall be submitted.
- (3) The director may include as part of any permit to construct a dam limitations and conditions that pertain to construction, operation, maintenance, and the protection of lives and property. These limitations and conditions become, by reference, part of the certificate and remain in effect throughout the life of the water right.
- (4) Approved plans and specifications for construction are, by reference, considered limitations and conditions placed on the water right permit and water right certificate. The director retains the authority to place additional limitations and conditions on the water right relative to operation and maintenance.
- (5) Dams constructed or operated in violation of limitations and conditions included in the permit or certificate are subject to

restricted use and permit cancellation procedures. The certificate affirms the applicant's right to store water subject to the limitations and conditions therein.

(6) An outlet conduit with a minimum diameter of 8" must be installed in any instream reservoir to permit drainage of the reservoir and for passage of flow to downstream prior rights. The director may waive this requirement if the director determines that the conduit is not needed for dam safety and will not be needed to pass flow for the benefit of other water rights, minimum perennial streamflows, or if the director determines an adequate alternative for passing flow is provided. Adequate alternatives must be capable of passing flow in sufficient quantity to satisfy downstream needs, and can include pumps, by-pass channels and siphons. Conduit material should be chosen based on design and site condition requirements. Acceptable conduit materials include reinforced concrete cylinder pipe; cast-in-place, reinforced concrete; appropriate PVC; concrete-encased corrugated metal pipe or plastic pipe; ductile iron; and cast iron. All joints should be water tight. The conduit valve should be installed at the upstream end and should be industry-manufactured with specifications consistent to the applied usage. Special provisions should be made for pressure conduits gated on the downstream end.

(7) The department shall determine the height of a dam by calculating the vertical distance (measured in feet) between the center point of the dam crest relative to and above the stream channel and the lower of either the natural soil surface that was in place prior to the construction of the dam or where a channel incision exists, the bottom of the channel incision. This measurement is to be taken at the maximum section along the dam's longitudinal axis.

(8) The department shall determine water impoundment volumes (in acre-feet or millions of gallons) as follows:

(a) For dams impounding water for an authorized beneficial use, the impoundment volume indicated in the area-capacity curve from the bottom of the reservoir to the spillway crest. For dams with multiple spillways, 'spillway crest' is referring to the crest of the principle or lower elevation spillway.

(b) For wastewater treatment lagoons, the impoundment volume indicated in the wastewater lagoon plans and specifications, and

(c) For diversion or flood control dams, the impoundment volume calculated at full reservoir at the dam emergency (highest elevation) spillway crest level.

Stat. Auth.: ORS 540.350 - 540.400

Stats. Implemented: ORS 183, 536 & 543

Hist.: WRD 3, f. & ef. 2-18-77; WRD 12-1986, f. & ef. 10-3-86; WRD 12-1994, f. & cert. ef. 11-7-94; WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

#### **690-020-0029**

#### **Small Dams, Recommended Minimum Standards**

The following information is presented for the applicant's assistance in constructing small earthfill dams:

(1) It is recommended that the crest width of the dam be not less than 8 feet.

(2) It is recommended that the upstream slope of the dam be no steeper than 3:1.

(3) It is recommended that the downstream slope of the dam be no steeper than 2:1.

(4) It is recommended that the spillway channel be constructed around the dam, not over the top of the fill. The spillway is commonly excavated in natural material and, if necessary, lined to prevent erosion. The spillway should be large enough to pass the 50-year flood flow without overtopping the dam. Assistance is available from the department in sizing the spillway. Flow passing through the spillway should be returned to the creek channel at a sufficient distance downstream to prevent erosion of the dam's embankment.

(5) It is recommended that all brush, stumps, roots, and organic matter should be cleared from the area to be occupied by the dam. All such material should also be removed from the borrow area.

(6) It is recommended that the outlet pipe be encased with concrete or other method to allow for proper compaction and the prevention of uncontrolled seepage.

(7) Embankment material should be spread parallel with the dam axis in layers not exceeding eight inches in thickness and adequately compacted with sheepfoot roller or other similar equipment.

(8) It is recommended that prior to construction the dam owner have the dam's potential hazard to downstream properties studied

using methods listed in 690-020-0100. It is recommended that any dam with a potential significant or high hazard rating be designed by a registered engineer familiar with dam engineering. It is advisable for any dam nearing or surpassing the dam height or storage thresholds for a "large dam" to be designed by a registered engineer.

Stat. Auth.: ORS 183 & 540

Stats. Implemented: ORS 183 & 540

Hist.: WRD 12-1986, f. & ef. 10-3-86; WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

### **690-020-0035**

#### **Dams Over the Statutory Limits; Minimum Engineering Design Requirements**

All maps, plans, and specifications for the construction of new large dams or significant dam work for existing large dams, must be prepared by a professional engineer licensed to practice in the State of Oregon.

(2) Before initiating design, the engineer shall obtain design criteria from the department.

(3) No newly constructed large dam shall be permitted to store water until written approval is received from the department. Approval will be given after construction has been completed and is certified by the supervising engineer to have been constructed in accordance with the approved plans and specifications.

(4) Design documents shall include the following:

(a) Plans:

(A) Plans for dams submitted for approval must accurately portray the work to be accomplished and be of sufficient detail to adequately define all features of the project. Plans must be submitted on good-quality mylar or vellum and must be neatly and accurately drawn to a scale sufficiently large, with an adequate number of views, for the drawing to be readily interpreted. To meet the requirements of this subsection, the director may allow plans for dams to be submitted electronically. The format of the plans in terms of file type, projection and other details must be approved by the department.

(B) Several sheets may be used to eliminate the necessity of large bulky drawings. No map or plan should be larger than 24 x 36 inches. The following information will be required:

(i) A contour map of the reservoir site which will show the location of the dam by quarter-quarter section, township, range and tax lot; and the name and location of the stream flowing through the reservoir. Government survey lines must be indicated on this

map, along with a survey tie to the dam axis from a government land corner. Area and capacity curves and/or tables of the proposed reservoir must be shown;

(ii) A map of the drainage basin showing the location of the dam and reservoir and the streams within the drainage area. This map may be prepared from existing reliable topographical maps and it must include: the number of square miles of drainage area; a brief description of the area; the percentage of bare and timbered lands; and general characteristics of the watershed, whether precipitous, rolling, or comparatively flat. The estimated discharge as well as the spillway capacity at different reservoir water levels should also be provided in the plans or specifications. Extraneous information can also be included in specifications or a separate hydrology report as to not clutter up the map;

(iii) A topographic map of the dam site with contour intervals not to exceed 5 feet. A plan of the dam should be superimposed on this map showing the location of spillways, outlet conduits, and other relevant auxiliary structures;

(iv) A profile of the dam site taken on the axis of the dam and a profile of the spillway along its axis. The profile should also show the location of the outlet conduit and spillway. A log showing the classification of materials encountered below the surface as shown by test pits or borings;

(v) A cross section of the dam at maximum section showing complete details and dimensions;

(vi) Plans showing sections of the outlet conduit, control works, and spillways. These sections should be in sufficient number and detail to make definite all features of the structure.

(b) Specifications. All plans for dams must be accompanied by construction and material specifications:

(A) The specifications shall describe in detail the methods and/or performance criteria to be followed in performing each class of

work and shall set forth the requirements for the various types of material to be used in permanent construction;

(B) The specifications must contain a provision for supervision by the engineer during construction and for inspection by the director or director's authorized representative at any time during the construction period;

(C) The specifications must also contain a provision to the effect that plans or specifications shall not be altered or changed without the written approval of the director or the director's authorized representative.

(5) Construction: Construction should be supervised by an engineer licensed to practice in Oregon. As a minimum the following notices and construction reports shall be submitted to the Department:

(a) Notice of beginning of construction;

(b) Notice of intent to begin placement of fill materials;

(c) Completion report including test results, "as-built" drawings, and certificate of completion in accordance with approved plans and specifications.

(6) During the design process for any newly constructed dams or for significant dam work to existing dams that involves potentially changing the volume or rate of water released during failure, the dam owner or owner's representative must submit to the department an inundation analysis using methods described in 690-020-100. The department shall use this analysis to determine the hazard rating of the dam in accordance with 690-020-100.

(a) If a dam is rated as high hazard, an emergency action plan is required and the plan must be reviewed and approved by the department.

(b) The inundation/evacuation map for the dam must be developed using methods described in 690-020-100(2) and must be reviewed and approved by the department.

Stat. Auth.: ORS 540.350 - 540.400

Stats. Implemented: ORS 183, 536 & 540

Hist.: WRD 3, f. & ef. 2-18-77; WRD 12-1986, f. & ef. 10-3-86; WRD 12-1994, f. & cert. ef. 11-7-94; WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

**690-020-0039** [Renumbered to **690-020-0050**]

**690-020-0050**

### **Enforcement Procedures**

The director shall maintain a program of inspecting existing dams. When any structure is found to be in violation of the terms and conditions of the permit or certificate or directly threatens life or property, or when any structure is found where lack of maintenance or unauthorized alterations could lead to a direct threat to life or property, the department shall notify the owner in writing of the violation and the action necessary to bring the structure up to design, operation, or maintenance standards. Failure by the owner to perform the required action may result in proceedings for one or more of the following:

(1) Notice and opportunity for a contested case hearing as provided for in ORS 540.350(5).

(2) Cancellation of the permit.

(3) Posting of the structure to prevent storage or to limit operation until the owner has complied with the requested action required to fulfill conditions of the permit or certificate.

(4) Instituting legal action by the District Attorney or Attorney General to have the facility declared a public nuisance.

(5) Issuance of an order to prevent storage or to breach the embankment as provided for in ORS 540.370.

(6) Any other enforcement action permitted by law.

Stat. Auth.: ORS 183 & 540

Stats. Implemented: ORS 183 & 540

Hist.: WRD 12-1986, f. & ef. 10-3-86; Renumbered from 690-020-0039, WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

**690-020-0100****Hazard Rating**

(1) Hazard ratings for “large dams” are classified by the department as “high hazard”, “significant hazard”, or “low hazard” as follows:

(a) High Hazard: This rating indicates that if the dam fails there is a strong plausibility for loss of life. The plausibility is established because of inhabited infrastructure (such as homes and business) downstream that would be inundated to such a degree see 690-020-0100(2)(d) for specific criteria that it would put the person who inhabits the structure in jeopardy. Any factor that puts a strong probability of people being downstream in an inundation area of a dam failure shall be considered. The department shall endeavor to inspect this class of dams on an annual basis.

(b) Significant Hazard: This rating indicates that if a dam fails, infrastructure (such as roads, power lines or other largely uninhabited buildings) would be damaged or destroyed due to inundation and flooding. The department shall endeavor to inspect this class of dams at least once every three years.

(c) Low Hazard: This rating indicates that if the dam fails there is little plausibility for loss of life, and human infrastructure that could be affected by inundation downstream is minor or non-existent. The department shall endeavor to inspect this class of dams at least once every six years.

(2) The department shall utilize inundation of infrastructure study results as a primary factor to determine the hazard rating of dams. Methods and modeling acceptable for inundation of infrastructure studies include:

(a) Hydraulic Modeling: Use of one-, two-, or three-dimensional modeling software (such as HEC-RAS, FLO-2D or MIKE) and hydrologic, topographic, and other data to estimate inundation of infrastructure downstream of dams.

(b) Hydrologic Routing Modeling: Use of modeling software such as HEC-HMS with hydrologic routing methods such as the Muskingum and Modified-Puls methods along with hydrologic and topographic data.

(c) Simplified Methods such as SMPDBK and the Washington State Method: “Dam Breach Analysis and Downstream Hazard Classification” may be used. A dam owner may request information on these methods from the department. Use of these or other simplified methods is only to be used in hazard ratings for dams, not for emergency action planning.

(d) Depth of inundation to trigger different hazard ratings: A depth of at least two feet over the finished floors of buildings or road surface of infrastructure is required to establish a “high hazard” rating. Any depth of water over the floorboards of structural buildings such as homes, barns, pump houses or storage sheds can establish a “significant hazard” rating. For roads, a depth of two feet or evidence of depth and velocity capable of creating damage can be used to establish a “significant hazard” rating.

(e) Specific data, methods and results for all methods must be reviewed and approved by the department prior to revising a hazard rating.

(3) The hazard rating of a dam shall remain in effect until the rating is revised by the department using one of the methods described in section 2. A dam owner may request that the department revise a hazard rating. The owner must provide information in support of the request. If the supporting information includes results and/or analysis using the methods described in subsections 2(a) or (b), the information must be prepared by an engineer licensed in Oregon and familiar with hydraulic and hydrologic modeling; if the information includes results and/or analysis using the methods described in subsection 2(c), the information must be prepared by a licensed engineer or a practicing hydrologist familiar with hydraulic and hydrologic calculations.

(4) Exceptions to Hazard rating methods:

(a) Small dams are not assigned a hazard rating.

(b) Situations in which there are heavy recreational or other uses downstream, a dam may be rated as “high hazard” because of probable loss of life regardless of downstream infrastructure presence.

Stat. Auth.: ORS 183 & 540

Stats. Implemented: ORS 183 & 536, 540

Hist.: WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

**690-020-0200****Fees for Dams**

- (1) Owners of a large dam shall submit to the department an annual fee in the amount and on the basis established under ORS 536.050.
- (2) Dam owners who fail to pay an annual fee on or before six months after the billing date may be required to pay a late fee in the amount established under ORS 536.050.
- (3) If a dam owner fails to pay the annual fee or late fee charged by the department, the department may, after giving the dam owner notice by certified mail, place a lien on the real property where the dam is located for the fees owed by the dam owner.
- (4) Dams that are subject to the annual fee include dams partially or wholly in the State of Oregon that meet the definition of "dam" under OAR 690-020-0020.
- (5) Multiple large dams connected together and separated only by embankments or other manmade materials (common with sewage lagoons) will count as one dam for fee purposes.
- (6) Owners Exempt from Fee Requirements include:
  - (a) Owners of a "small dam",
  - (b) Owners whose dams that are directly controlled or regulated for safety by an agency of the U.S. Federal Government and the agency that controls or regulates the dam has its own safety program that meets the following criteria:
    - (A) The program must allow for control of the design and construction process for dams under their control with licensed engineers designing and reviewing any major design or repair. Copies of all design drawings and construction records should be forwarded to the department for tracking and archival purposes.
    - (B) The program must have a regular dam inspection program that is either conducted by or directly supervised by a licensed engineer with expertise in dam safety. Formal documented dam inspections for high hazard dams should occur at least once per year. For significant hazard dams, inspections shall occur at least once every 3 years and for low hazard dams, once every 6 years. Other more frequent inspections and reports on dam conditions may be necessary depending on the condition of individual dams. Copies of mutually agreed upon inspections and reports should be forwarded to the department for archival and tracking purposes.
    - (C) The federal agency in charge of the dam via regulation or control must also have a regular maintenance program or be able to require maintenance activity from the regulated party that will address problems discovered in the inspection program.
    - (D) The federal agency must have a memorandum of understanding or agreement with the department that outlines how the federal agency meets the criteria in paragraphs (b)(A)–(C), and must agree to meet at least annually with the department to review the state of the federal program for continued exemption purposes.

Stat. Auth.: ORS 536.050

Stats. Implemented: ORS 536.050

Hist.: WRD 7-2009, f. 12-7-09, cert. ef. 1-1-10

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# Dam Safety in Oregon

## A General Guide





State of Oregon  
**Water Resources Department**  
725 Summer Street NE, Suite A  
Salem, Oregon 97301  
(503) 986-0900  
*[www.wrd.state.or.us](http://www.wrd.state.or.us)*  
March 2007

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## **Oregon Water Resources Department**

[www.wrd.state.or.us](http://www.wrd.state.or.us) - Dam Safety website, forms, and administrative information. The website is updated regularly with news and events.

## **Federal Emergency Management Agency**

[www.fema.gov](http://www.fema.gov) - US government agency dedicated to disaster mitigation, preparedness, and response and recovery planning. Links can be found on their website to Dam Safety and the FEMA Emergency Action Plan. This website is regularly updated with current emergency related news.

## **Association of State Dam Safety Officials**

[www.damsafety.org](http://www.damsafety.org) - ASDSO is a non-profit organization of state and federal dam safety regulators, dam owners and operators, engineering consultants, manufacturers and suppliers, and others interested in dam safety. ASDSO's vision is to lead the US dam safety community with a strong, unified voice and effective programs and policies towards furtherance of dam safety.

## **Bureau of Reclamation**

[www.usbr.gov](http://www.usbr.gov) - The Bureau of Reclamation is the second largest supplier of wholesale water and hydroelectric power in the American West. They promote water conservation, recycling, and reuse. The Bureau of Reclamation is a contemporary water management agency with a strategic plan outlining numerous programs, initiatives, and activities that will help meet new water needs and balance the multitude of competing uses of water in the west.

## **US Army Corps of Engineers**

[www.usace.army.mil](http://www.usace.army.mil) - Their mission is to provide quality, responsive engineering services to the nation including planning, designing, building, and operating water resources and other civil works projects. Navigation, flood control, environmental protection, and disaster response links are updated regularly.



# Purpose

Dam safety is an important issue of which the public needs to be familiar. This booklet has been designed to cover topics that will benefit the public, engineers, dam owners, and watermasters. This booklet also covers Oregon's laws pertaining to dams and a glossary of commonly used terms.



# History

## of the Dam Safety Program

Dam safety laws in Oregon were first adopted in 1909, and then modified in 1927, and again in 1929 following the catastrophic failure of California's St. Francis Dam, when the statutes were amended to their present form, more or less. Initially, the review of design plans and specifications was conducted by the State Engineer, and then by a staff engineer in the State Engineer's Office. This one person operation continued until 1956 when the staff was increased to two-full time engineers.

In 1975, further amendments to Oregon water laws merged the State Engineer's Office and the Water Resources Board, forming the Water Resources Department and changing the title of the department head from "State Engineer" to "Water Resources Director". The State Water Policy Review Board and oversight committee was also created,

consisting of 7 members from the public appointed by the Governor. As a consequence, the authority to take enforcement actions for protection of human life and property related to Dam Safety was transferred from the State Engineer to the Water Resources Director.

An inspection technician was added to the Dam Safety Program in 1978. Also, Dam Safety added five engineers with funding provided by Congress. A direct result of the increased funding allowed completion of 50 Phase I Inspections Reports for existing high hazard, non-federal dams within the state. In 1982, the program ended as federal funding was eliminated. All but two of the engineering positions and the inspection technician position were also eliminated.

The name of the State Water Policy Review Board was changed to the Water

Resources Commission in 1983, and to it was given new responsibilities for policy decisions, rule making, and management of the agency. Shortly thereafter, the Commission delegated much of its new found authority back to the Director's Office. Until this time, Dam Safety had existed as a separate, stand alone unit.

Later, Dam Safety was combined with the Enforcement Division within the agency. The program was reduced to a single Dam Safety Engineer and one technician. Watermasters were assigned routine inspection duties for existing dams in addition to their other water distribution and regulation assignments. Additionally, other program areas were assigned to the remaining Dam Safety Engineer, including Hydroelectric Facility licensing and Hydrographics.

In 1990, the agency was reorganized so that Dam

Safety was combined with Computer Services, GIS, Hydrographics, Hydrology, and Groundwater to form the Technical Services Division. The Hydroelectric Licensing section was moved into the Water Rights Division, however the Dam Safety Engineer was still required to manage a division with about 35 employees.

In 1993, an engineer was hired as Dam Safety Coordinator to upgrade and replace the technician position that was eliminated due to retirement. For a short while, the Technical Services Division was combined with the Field Services Division, but then reverted to the previous arrangement that placed Dam Safety in the Technical Services Division. At present, the Dam Safety Engineer also serves as Division Administrator. The Dam Safety Coordinator is responsible for the management of the Dam Safety Program.

# Responsibility

## Duties of the Dam Safety Program

The Dam Safety Program is responsible statewide for the review and approval of dam designs, scheduling inspections of existing dams and reservoirs, conducting site inspections of new dam construction, and maintaining both the National Dam Inventory (NID) and the state database.

It is important to realize that the ultimate responsibility for the continued safe operation of any dam or reservoir rests entirely with the dam owner(s). Oregon does not require proof of insurance before a reservoir is filled with water. Typically, water right holders own the land upon which most dams and reservoirs are built. In cases where there are no associated water rights or where the water right holder does not own the real property where the structure is situated, the State presumes the land owner also to be the owner of the dam.

The Dam Safety Coordinator provides assistance to watermasters and to owners and operators of dams when questions or situations arise that require engineering advice or training. Other duties include hazard assessment of existing structures, review of emergency management plans, and review of water right transactions (applications, permits, certificates) to assure that appropriate conditions are met that will help to provide safety for downstream life and property.

“To serve the public by practicing and promoting responsible water management.”

*Water Resources  
Department Mission  
Statement*

The Dam Safety Coordinator also performs all regular clerical and office support duties. The state is divided into four regions and twenty watermaster districts. In addition to their duties relating to regulation of water use and distribution, the watermasters assist with performing routine and regularly scheduled inspections of low hazard dams and reservoirs within their respective districts according to a schedule prepared and updated by the Dam Safety Coordinator.



Approximately 8 to 10 percent of each watermaster's time is allocated toward dam and reservoir inspections. At present, nearly 1300 dams and reservoirs are inspected at an interval of 1 to 5 years. Of those, more than 100 structures are owned, operated, or supervised by federal organizations who also maintain active dam safety programs. Some examples of these federal organizations are the Corps of Engineers, Bureau of Reclamation, and certain hydroelectric power generating facilities licensed by the Federal Energy Regulatory Commission (FERC). The Oregon Water Resources Department participates with the respective federal agencies in the inspection of those structures.

# Responsibility

For more information about the National Flood Insurance Program (NFIP), visit the website:  
[www.floodsmart.gov](http://www.floodsmart.gov)

The National Flood Insurance Program (NFIP) provides federally backed flood insurance in communities that comply with minimum standards for floodplain management. As an incentive, standard homeowners and commercial property located within a designated “flood zone” can receive an insurance premium rate reduction based on various activities that communities voluntarily undertake to reduce flood losses. Once enrolled in the NFIP, each participating community is evaluated based upon the number of credit points earned according to prerequisite activities listed under the NFIP’s Community Rating System (CRS). Depending on the total number of credit points, the CRS assigns a community to one of 10 classes. A maximum 45% insurance premium discount is possible if all CRS criteria are satisfied.

For more information about the Association of State Dam Safety Officials (ASDSO), visit the website:  
[www.damsafety.org](http://www.damsafety.org)

Under CRS Activity 630, a participating community will automatically receive up to 75 credit points if their respective state has a dam safety program that meets certain criteria based on the Model Dam Safety Program recommended by the Association of State Dam Safety Officials (ASDSO). Information and guidelines contained as key components of the

Model State Dam Safety Program are broken into the following chapters:

- I. Legislation and Regulations
- II. Permitting, Design Approval and Authorization to Impound
- III. Inspection
- IV. Enforcement
- V. Emergency Response
- VI. Program Staff and Funding
- VII. Program Staff and Dam Owner Education and Training
- VIII. Dam Safety Program Public Relations Plan

Presently, the Oregon dam safety program does not have authority to take corrective or emergency action if a dam owner fails to comply with an Order. Therefore, Oregon communities participating in the NFIP do not receive any credit points for the state dam safety program. In order for communities to receive this additional credit, all of the elements listed in the Model Dam Safety Program must also be included in the state's program.



### What Constitutes a Dam?

“Dam” is not specifically defined in any of Oregon’s statutes or rules. Regardless of a legal definition per Oregon law, a dam is taken here to mean: “any artificial barrier, including appurtenant works, that impounds or diverts the flow of water.”

*(See Glossary)*

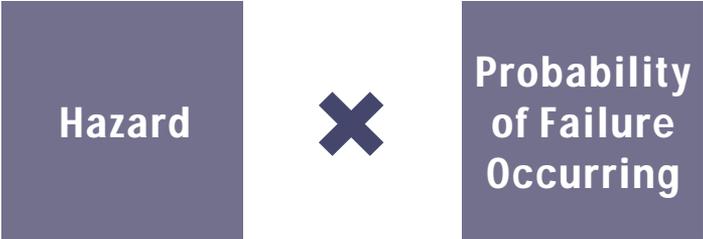
### Hazard vs. Risk

When considering hazard in terms of dam classification, it is important to realize that the term “Hazard” is not the same as “Risk”. For example, a large dam may be rated a high hazard structure because its location is such that a catastrophic failure and sudden release of water could adversely threaten downstream life and property. However, the same dam also could be at low risk for failure because it is conservatively engineered, receives regular inspections, and is exceptionally well maintained. Thus, its probability for failure is very low. In other words, risk is the product of hazard multiplied by the probability that a failure will occur.



Another example to illustrate this concept would be a smaller sized irrigation reservoir located miles from human habitation. In this situation, the dam is rated a low hazard structure because of its location, but it could be at high risk for failure because it was not properly designed by an engineer, it has never been inspected, and it is poorly maintained.

It is important to realize that a dam's hazard rating does not define the physical condition of the structure. Instead, "Hazard" is the definition that is used to estimate the amount of damage that could occur in the event the dam were to suddenly fail and release the contents of its reservoir. For that reason, any dam that is rated a high hazard structure must be properly designed, regularly inspected, and maintained in the best condition at all times because the consequences of a failure are just too great to ignore. All reasonable methods must be implemented to reduce the *risk of failure* for high hazard dams.



Hazard



Probability  
of Failure  
Occurring

Oregon Dam Safety has divided existing dams into three hazard classifications. Each rating is an estimate of the potential consequences to downstream life and property that would result from a catastrophic dam failure.

### **Low**

Low hazard dams are scheduled to be inspected every 4 to 5 years depending on the owner's ability to maintain the dam. A sudden or rapidly developing failure of the dam or a sudden uncontrolled release of stored water from the reservoir would not appear to threaten human life. Downstream property damage would be limited primarily to the stream channel.

### **Significant**

Significant hazard dams are scheduled to be inspected every 2 to 3 years depending on the condition of the dam, and the owner's ability to provide upkeep, the maintenance record, or the outward appearance of the dam. A sudden or rapidly developing failure of the dam or a sudden uncontrolled release of stored water would most likely result in significant property damage, and/or the potential for causing the indirect loss of human life.

### **High**

High hazard dams are scheduled to be inspected on an annual basis, alternating between seasons. A sudden or rapidly developing failure of the dam or a sudden uncontrolled release of stored water would likely result in direct loss of human life. Severe and/or widespread property damage would also be expected to occur.

# Permits

## Reservoir Permits and the Permitting Process

Under Oregon law, all water belongs to the public. With few exceptions, any person wishing to appropriate and store surface water or ground water must first obtain a permit from the Water Resources Department. The water right, once developed, is considered to be a type of property right and is attached to the land where it was established. Consequently, real property with an attached water right may be several miles from the actual source of water. In Oregon, landowners with water flowing past, through, or below their property do not automatically have a right to use that water.

Oregon's water laws are based on the Principal of *Prior Appropriation*. This means the first person to obtain a water right on a stream is the last to be shut off in times of low streamflows. In water-short times, the water right holder with the oldest date of priority can demand the water specified in their water right regardless of the needs of junior users. If there is a surplus beyond the needs of the senior right holder, the water right holder with the next oldest priority date can take as much as necessary to satisfy needs under their right and so on down the line until there is no surplus or until all rights are satisfied. The date of application for a permit to use water usually becomes the priority date of the right. Generally, storage water rights have a junior priority date. For that reason, reservoirs are typically filled during the non-irrigation season from excess winter stream flow.

Reservoir applications and other forms can be found on the web:

[www.wrd.state.or.us](http://www.wrd.state.or.us)

# Permits

## Reservoir Permits and the Permitting Process

### Oregon's Water Code

*four fundamental provisions*

#### **1. Beneficial purpose without waste**

Surface or ground water may be legally diverted for use only if it is used for a beneficial purpose without waste.

#### **2. Priority**

The water right priority date determines who gets water in a time of shortage. The more senior the water right, the longer water is available in a time of shortage.

#### **3. Appurtenancy**

Generally, a water right is attached to the land described in the right, as long as the water is used. If the land is sold, the water right goes with the land to the new owner.

#### **4. Must be used**

Once established, a water right must be used as provided in the right at least once every five years. With some exceptions established in law, after five consecutive years of non-use, the right is considered forfeited and is subject to cancellation.

### **Applying for a Permit to Use Water**

Oregon law requires a Reservoir Permit from the Water Resources Department to store water in an above-ground reservoir. Additionally, a separate permit is needed to apply the stored water to a beneficial use. In most instances, two applications for permits are usually required for above ground reservoirs, those being:

- A *primary* application for reservoir storage of a given volume of water, including both ground water and stream flow and pumped ground water sources.
- A *secondary* application to appropriate surface water or to use water from a reservoir in excess of the amount that was needed to initially fill the reservoir. A secondary application is required to maintain the level of water in the reservoir and to replenish the amount of stored water lost due to evaporation and/or seepage.

**Obtaining a permit is a critical hurdle in obtaining a water right. A reservoir permit is the authorization necessary from the State of Oregon via the Water Resources Department to store water. With few exceptions, any existing or proposed hydraulic structure for storage of water requires a permit, regardless of its height or capacity.**

- The Alternate Review Application Process for a Water Right Permit pertains to a pond or reservoir of any storage capacity with a dam height less than 10 feet. If the dam is 10 feet or greater, the maximum amount of water stored under the Alternate Review Process must be less than 9.2 acre feet.
- The Standard Review Application Process is for any reservoir that is both greater than or equal to 9.2 acre feet and with a dam height of 10 feet or greater. With few exceptions, engineered plans and technical specifications must be submitted for review and approval before a Reservoir Permit will be issued for these larger sized structures.

# Permits

## Reservoir Permits and the Permitting Process

### Preparing the Reservoir Application

All entries should be typewritten or neatly printed with dark ink. The appropriate filing fee(s) shall accompany each application at the time of submittal. All items must be completed even though portions of the required information may appear on supplemental maps or drawings. Incomplete applications will be returned to the applicant, and will not be assigned a priority date until they are determined to be complete.

### How an Application is Processed

Once a completed application has been received, the Department must provide public notice of the application within 60 days. The purpose of the public notice is to allow the public the opportunity to submit detailed, legally obtained information to the Department for consideration as to whether or not the application would be injurious to existing water rights. The Department also notifies other state agencies including the Oregon Department of Fish and Wildlife (ODFW). ODFW provides comments as appropriate regarding potential impact to existing fishery resources. All comments must be submitted within 60 days of the public notice.

Within the prescribed 60-day period, if the Department does not find injury to existing water rights or is notified about detrimental impacts to existing fishery resources, then the Department may issue a Final Order that will

Even if there are no fish living in the stream, the Department is required to notify ODFW of all applications.

allow issuance of a permit within 180 days of the priority date. Because of the processing timelines set forth in ORS 537.409, the Department suggests applicants make certain to file an application prior to scheduling excavation work or expending a large amount of money.

### **Nonstatutory (Small) Dams Not Subject to Design Review**

Nonstatutory dams, those that are less than 10 feet in height or that impound less than 9.2 acre feet, do not require design approval and construction oversight by the Water Resources Department. Nonetheless, a permit to store water is likely required. The local watermaster can assist in filing an application for a permit to store water for these smaller structures.

It is recommended that earthen embankment dams less than 10 feet in height or less than 9.2 acre feet storage capacity have a crest width no less than 8 feet, an upstream slope no steeper than 3:1, and a downstream slope no steeper than 2:1. An emergency spillway channel should be constructed around the dam, not over the top of the fill, and lined to prevent erosion. The spillway should be able to withstand the 50-year flood flow without overtopping the dam. It should also direct the passing flow downstream to prevent erosion of the embankment.

For best results, all brush, stumps, roots, and organic matter should be cleared from the borrow area and beneath the dam. Only fill materials consisting of non-organic and cohesive soils adjusted in moisture to optimum water content should be used for construction of the dam. Individual layers should not exceed 8 inches in thickness and should be compacted with a sheepsfoot roller or similar equipment. Fill material should be placed in thin layers parallel with the long axis of the dam.

### Statutory Sized (Large) Dams

The following list is a summary of the minimum requirements for examination and approval of design plans and technical specifications for construction of dams greater than or equal to 10 feet in height and that impound 9.2 acre feet or more of storage. **A licensed professional engineer must prepare these design documents and submit them for approval prior to construction.**

#### 1. Vicinity Map

- ∴ Location of dam and reservoir in relation to township, range, and quarter-quarter section, together with a survey tie (bearing and distance) from a benchmark on the dam to an established government land corner.
- ∴ Watershed map that delineates the contributing drainage area into the reservoir.
- ∴ Access roads, significant land features, urban areas, or downstream development.
- ∴ Borrow areas, quarries, utilities, and property lines within project boundaries.

#### 2. Plan View of Dam and Appurtenances

- ∴ Topographic contour map, maximum 2-foot interval.
- ∴ Locate by station the primary outlet and auxiliary or emergency spillway; if applicable, include toe drains, filters, log boom, or fish by-pass facilities.
- ∴ Area/Capacity Diagram or stage/storage data tabulating hydraulic depth versus corresponding surface area and reservoir storage capacity.
- ∴ Locations of field exploration or subsurface investigation including bore holes, test pits, excavations, trenches, monitoring wells, and other invasive methods.

### 3. Profile Parallel to Centerline Axis of Dam

- ∴ Existing ground surface and thickness of stripping or grubbing.
- ∴ Grade line for cutoff trench and/or excavation for foundation.
- ∴ Bedrock or foundation material contacts.
- ∴ Crest elevation of dam; include camber if applicable.
- ∴ Locate by station the primary outlet and auxiliary or emergency spillway; if applicable, include toe drains, filters, log boom, or fish by-pass facilities.

### 4. Sectional View of Dam at Maximum Section

- ∴ Upstream and downstream slopes, including erosion control or armoring.
- ∴ Dam dimensions and elevations; X (width) and Y (height) coordinates.
- ∴ Emergency spillway crest elevation and spillway channel grade line(s).
- ∴ Water surface elevations, including normal pool and flood maximum.
- ∴ Interior material zones and/or internal filters.
- ∴ Invert elevations of outlet conduit, toe drains, and other internal piping.
- ∴ Existing ground surface and thickness of stripping or grubbing.
- ∴ Cutoff trench and/or excavation for foundation, with dimensions.

### **5. Emergency Spillway Detail Drawing**

- ↻ Both a sectional and profile view.
- ↻ Elevations and dimensions at all stations where channel configuration or grade lines transition or otherwise change.
- ↻ Dimensions and elevations for stilling basin or other flow and energy dissipaters, including both formed-in-place concrete or constructed channel armoring.
- ↻ Elevations and dimensions of flow control mechanisms such as flash boards, stop logs, lift or tainter gates, or channel splitters.

### **6. Outlet Conduit and/or Primary Spillway Detail Drawing**

- ↻ Cross section showing sizes, dimensions, and type(s) of material, including concrete encasement and/or pipe bedding.
- ↻ Draw down curve, flow rating information, or discharge capacity data.
- ↻ Longitudinal section (profile) illustrating configuration and position of conduit and all joints, flanges, or other connections.

### **7. Outlet Works Detail Drawing**

- ↻ Operating gates or valves, and guard gates or valves; if manufactured, list the name, model number, supplier, etc.
- ↻ Base block or anchor, pedestals, operating stem and/or lift mechanism.
- ↻ Fish screen, trash rack, or other clog prevention device.

### 8. Technical Data

- ∴ All elevations referenced to established benchmark, such as MSL or NGVD.
- ∴ Hydrologic report or calculations verifying adequacy of emergency spillway at 100-year storm (1% flow) or PMF as appropriate.
- ∴ Summary report of foundation investigation which may include site geology, ground water hydrology, drill logs, test pits, laboratory test results and geotechnical stability analysis for rapid drawdown, flood loading and/or seismic analysis as appropriate.
- ∴ Bid package or a complete set of technical specifications for design, manufacture, placement, and testing of construction materials or material components as appropriate.

### 9. Operation and Maintenance Manual

*(Significant and High Hazard Dams)*

- ∴ Preventative maintenance schedule, contact information, storage/release schedule.

### 10. Emergency Action Plan

*(High Hazard Dams)*

- ∴ Dam failure/breach analysis for both sunny day and storm scenario.
- ∴ Downstream inundation maps for sunny day and storm failure scenarios.
- ∴ Monitoring and/or warning systems, notification charts, and evacuation procedure(s).

# Inspection

## Process of Inspecting Dams

No person shall construct any dam that is 10 feet or greater in height and stores 9.2 acre feet or more, unless the Department has made an examination of the site and of the plans and specifications and other features involved in the construction of such works, and has approved them in writing. (ORS 540.350; amended 1981)

Periodic inspection of existing hydraulic structures for protection of public safety is part of the Oregon Dam Safety Program. However, Oregon laws do not specify the frequency of inspections. The inspections are made under the supervision of the Dam Safety Coordinator.

If a person residing on or owning land in the neighborhood of any dam after completion, or in the course of construction, applies to the Director desiring inspection of the works, the Director may order an inspection, or he may make such order on his own motion. If the inspection is deemed justified by the Director, he may require that the owner pay all or part of the expenses for the inspection. (ORS 540.390)

If a potential risk is discovered during an inspection or the structure is determined to be unsafe, the owner of the dam is notified and requested to take necessary action to prevent failure of the dam. Owners are expected to maintain their hydraulic structure in a safe and responsible manner and make proper repairs to keep it operational.

Many dam owners do not realize their responsibility and liability toward the downstream public and environment.

# Rating Criteria

Process of Inspecting Dams

## **Very Good Condition**

- a. No apparent problems; new or newly replaced.
- b. Well maintained and supervised.
- c. No need for increased maintenance or monitoring activities.

## **Acceptable Condition**

- a. Fully functional and trouble-free operation.
- b. Increased maintenance or monitoring may be necessary.
- c. Letter to owner may be appropriate to advise of maintenance/monitoring.

## **Unsatisfactory Condition**

- a. Marginally functional under normal conditions, but could be a potential problem under extreme loading or operating conditions not routinely experienced.
- b. Intensive maintenance program necessary to prevent further deterioration.
- c. Minor repair, rehabilitation, or restoration may be necessary in addition to increased maintenance or monitoring activities.

## **Repair or Replace**

- a. Non-functional, defective, or missing component.
- b. Deterioration has progressed beyond ability of maintenance program or owner's willingness to adequately restore to design conditions.
- c. Major repair or rehabilitation necessary to restore dam, spillway, or appurtenant works to original design or to standards acceptable to OWRD Dam Safety.

# Inspection Form

Process of Inspecting Dams



State of Oregon  
Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266  
(503) 986-6900

## Dam Safety Inspection Form

Name of Dam or Reservoir: \_\_\_\_\_ Date: \_\_\_\_\_  
 Permit/Certificate: \_\_\_\_\_ District: \_\_\_\_\_ NID: \_\_\_\_\_ File: \_\_\_\_\_  
 Height: \_\_\_\_\_ Storage: \_\_\_\_\_ Photo Attached: \_\_\_\_\_ Hazard:  Low  Medium  High  
 Inspector: \_\_\_\_\_ Weather: \_\_\_\_\_ Score: \_\_\_\_\_

Prior inspection: \_\_\_\_\_ Next inspection: \_\_\_\_\_

Component	Observation and Remarks	Rating
<b>I. Primary Dam</b>	<input type="checkbox"/> Earthen <input type="checkbox"/> Rock Zoned <input type="checkbox"/> Concrete <input type="checkbox"/> Other	
Upstream slope		
Crest		
Downstream slope		
Right abutment		
Left abutment		
Toe		
Auxiliary dam/dike???	Yes <input type="checkbox"/> No <input type="checkbox"/> If "Yes", include on separate inspection form.	

II. Reservoir	Pool level/elevation:	Point of reference:
Floating debris/trash		
Landslides/erosion		
Log boom		

III. Instrumentation	Flow Rate	Water Level	Description/Condition
Toe drains			
Weirs/flumes			
Monitoring wells			
Other			

Go to [www.wrd.state.or.us](http://www.wrd.state.or.us) to find WRD forms.

Name of Dam or Reservoir: \_\_\_\_\_ Date: \_\_\_\_\_

<b>IV. Primary Outlet</b>	<input type="checkbox"/> Manual	<input type="checkbox"/> Power Assist	<input type="checkbox"/> Other
Trickle tube			
Inlet structure			
Outlet structure			
Control works/stem			
Low level conduit			
Valve/sluice gate	Diameter: _____	Date last fully cycled. Month: _____	Year: _____
Trash rack			
Secondary outlet??	Yes <input type="checkbox"/> No <input type="checkbox"/>	If "Yes", include on separate inspection form.	

<b>V. Emergency Spillway</b>	<input type="checkbox"/> Earthen/Sod	<input type="checkbox"/> Rock	<input type="checkbox"/> Concrete	<input type="checkbox"/> Other
Flashboards				
Control gate				
Approach channel				
Discharge channel				
Stilling basin				
Auxiliary spillway??	Yes <input type="checkbox"/> No <input type="checkbox"/>	If "Yes", include on separate inspection form.		

<b>VI. Security</b>	
Fencing, signage	
Vehicle access road	
On Site Dam Tender	Yes <input type="checkbox"/> No <input type="checkbox"/> Name: _____
Emergency Plan	Yes <input type="checkbox"/> No <input type="checkbox"/> Not required <input type="checkbox"/>

Rating Criteria: Observed Structural or Mechanical Condition  
 5 – Very Good  
 4 – Acceptable  
 3 – Unsatisfactory  
 1 – Repair or Replace

10/2005 DMS

# Enforcement

## Enforcement Procedures

The Dam Safety Program maintains an inventory of existing hydraulic structures that exceed statutory height and storage criteria. When, during the course of inspection of any of the inventoried dams, a particular structure is discovered to be in violation of safety conditions that would adversely affect or threaten downstream life and property, the Director may act to cause the dam owner to remedy the situation.

Upon discovery of a safety hazard that poses a threat to life or property, the Department may notify the owner in writing of the hazard and action(s) necessary to return to the project and appurtenant works to safe design, mechanical operational, or maintenance standards. Failure by the owner to perform the required action may result in proceedings for one or more of the following scenarios:

1. Notice and opportunity for a contested case hearing. [As provided for in ORS 540.350(5).]
2. Cancellation of the permit for failure to make a satisfactory Claim of Beneficial Use.
3. Posting of the structure to prevent storage or to limit operation until the owner has complied with the requested action.
4. Instituting legal action by the District Attorney or Attorney General to have the facility declared a public nuisance.
5. Issuance of an order to prevent storage or to breach the dam. [As provided for in ORS 540.370.]
6. Any other enforcement action permitted by law.



Check out  
**ORS 183** and  
**ORS 540** for  
more information  
about dam safety  
enforcement.



# Appendices



# Statutory Authority

Oregon Revised Statutes pertaining  
to dams, reservoirs, and dam safety,  
specifically and generally:

ORS 537.190

ORS 540.400

ORS 537.211

ORS 541.050

ORS 537.248

ORS 541.060

ORS 537.400

ORS 541.510

ORS 537.409

ORS 541.515

ORS 537.420

ORS 541.520

ORS 540.340

ORS 541.525

ORS 540.350

ORS 541.530

ORS 540.360

ORS 541.540

ORS 540.370

ORS 541.545

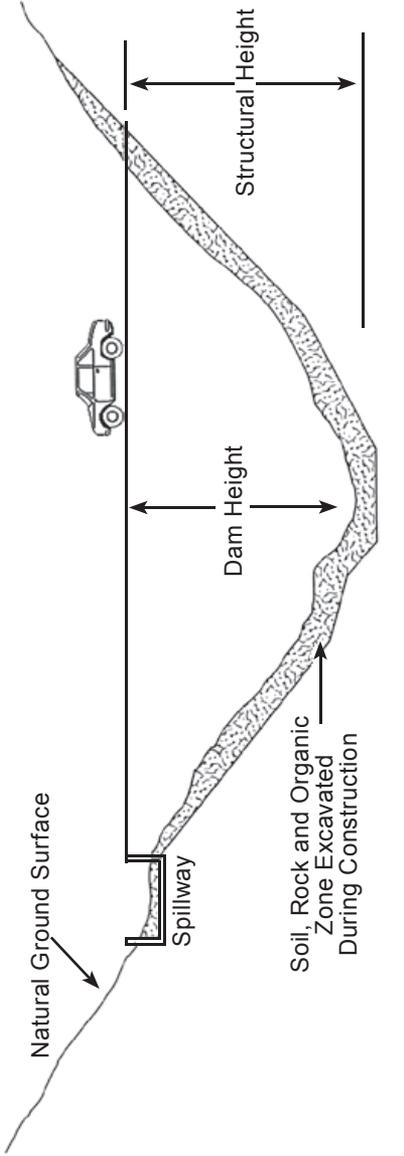
ORS 540.380

ORS 540.390

Go to  
[www.wrd.state.or.us](http://www.wrd.state.or.us)  
for more information  
about Oregon  
water laws.

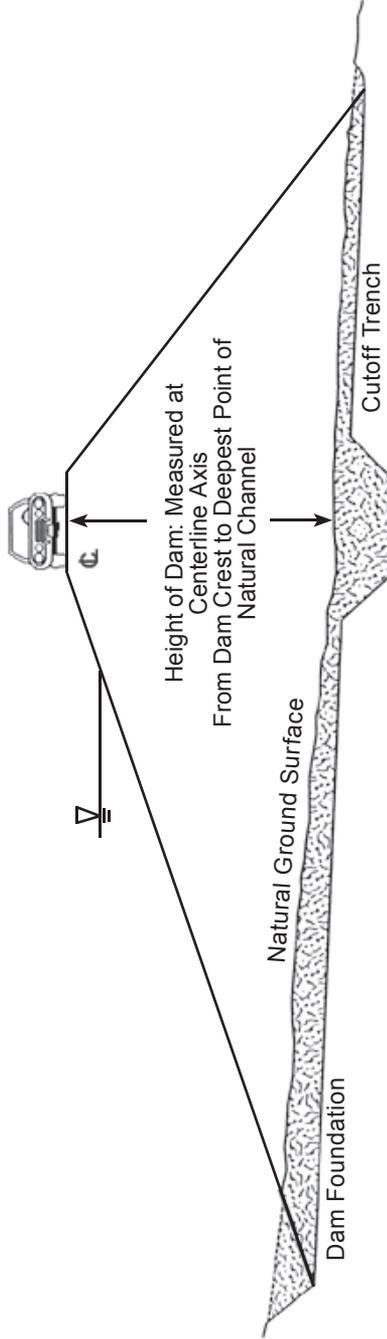
# Dam Components

## Longitudinal View Along Centerline Axis

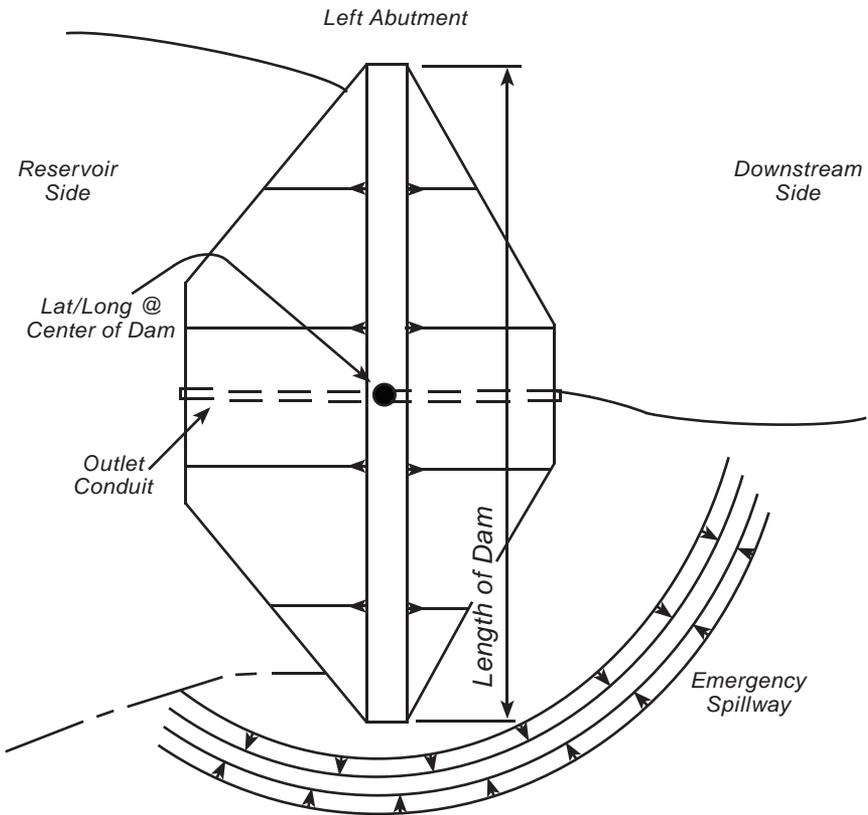


# Dam Components

## Cross Section (Typical)



# Dam Plans



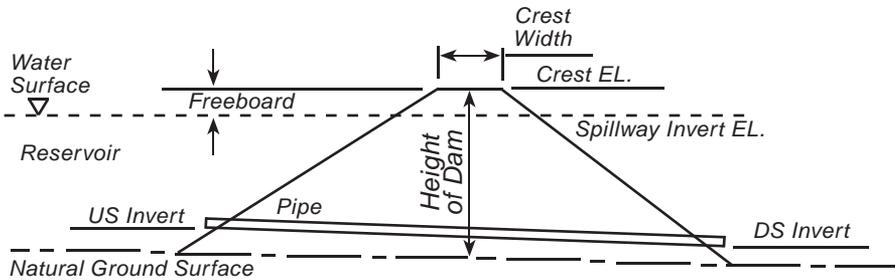
*Right Abutment*

**Plan  
(Typical)**

# Dam Plans

## Measured Dimensions

- Length of Dam Between Abutments
- Dam Crest Elevation
- Dam Crest Width
- Emergency Spillway Crest Elevation
- Maximum Dam Height
- Principle Spillway Inlet Elevation
- Principle Spillway Outlet Elevation
- Freeboard



## Section

# Glossary

**Abutment:** That part of the valley wall against which a dam is constructed. The left and right abutments of dams are defined with the observer viewing the dam looking in the downstream direction, unless otherwise indicated.

**Acre foot:** The volume or amount of water needed to cover 1 acre (43,560 square feet) 1 foot deep (325,851 gallons).

**Breach:** An eroded opening through a dam or spillway that drains the reservoir. A controlled breach is a constructed opening. An uncontrolled breach is an unintentional opening which allows uncontrollable discharge from the reservoir.

**Channel:** A general term for any natural or artificial facility for conveying water.

**Cohesionless Soil:** A soil possessing little or no shear strength when unconfined (sand).

**Cohesive Soil:** A soil that exhibits considerable shear strength when unconfined (clay).

**Collar:** A thin collar placed at uniform intervals along an outlet conduit to retard water seepage.

**Compaction:** Mechanical action to increase the density of a soil by reducing the number or size of internal voids.

**Conduit:** A closed conveyance pipe used to release water through a dam.

**Contested Case:** A legal proceeding before an agency.

**Core:** A zone of low permeability material in an embankment dam. The core is sometimes referred to as central core, rolled clay core, or impervious zone.

**Cutoff Trench:** A trench excavated beneath the dam foundation and backfilled with impermeable material to retard water seepage under the dam.

**Dam:** An artificial barrier across a watercourse or valley for creating a reservoir, diverting water from a channel, or creating hydraulic head. "Any artificial barrier, including appurtenant works, that impounds or diverts the flow of water."

**Dam Crest:** The top surface of the dam.

# Glossary

**Dam Failure:** Catastrophic type of failure characterized by the sudden, rapid, and uncontrolled release of impounded water.

**Dike:** An artificial protective barrier or obstacle designed to prevent flooding of adjacent land surrounded by water.

**Drain:** A pipe or similar feature that collects and directs water to a specified location.

**Embankment:** An engineered earth fill.

**Emergency Action Plan:** A formal plan of procedures to alleviate risk during construction of or after completion of a dam, or to reduce the consequences to life and property that would result from a dam failure. Also, a plan of action to be taken to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood.

**Filter:** A material or zone of materials designed to provide drainage without causing movement or erosion of the individual particles comprising the filter.

**Final Order:** Final agency action expressed in writing.

**Flashboard (Stoplogs):** Planed timber or steel beams that are physically placed on top of each other in a channel or an outlet so as to adjust the flow of water. Flashboards often are an alternative to gates or valves in low-head situations.

**Flood:** A temporary rise in water levels resulting in inundation of areas not normally covered by water. May be expressed in terms of probability of exceedance per year, such as 1 percent chance flood, or expressed as a fraction of the probable maximum flood or other referenced flood of record.

**Flood Frequency:** Refers to the probability (expressed in percentage) that a flood will occur in a given year, example 20%, 10% ,or 1%.

**Flood, Probable Maximum (PMF):** The largest flood that is estimated for a selected location on a stream resulting from the probable maximum precipitation storm (PMP) in combination with extreme runoff conditions.

**Flood Surcharge:** The storage volume between the top of the active reservoir storage and the design maximum water level.

**Foundation:** The ground surface upon which a dam is constructed.

**Freeboard:** The vertical distance between the design high-water level in the reservoir and the dam crest.

**Gate:** A movable, watertight barrier for the control of water flowing through a pipe or channel. (See Valves)

**Groin:** The area along the contact (or intersection) of the face of a dam with the abutments.

**Hazard Classification:** The rating for a dam based on the potential consequences of failure. The rating considers the aggregate damage to downstream life and property that failure of the dam could cause.

**Height:** The maximum vertical distance from natural ground surface to the top of a dam.

**Hydrograph:** A graph showing, for a given point on a stream or conduit, the discharge, stage, velocity, available power, or other properties of water with respect to time.

**Hydrologic Connection:** Condition where water can move between a surface water source and an adjacent sub-surface aquifer.

**Impervious:** Not allowing liquid to pass through; waterproof.

**Instream Flow:** Minimum quantity of water necessary to support the public use requested by an agency.

**Inundation Map:** A map delineating the area that would be flooded by a particular flood event. It includes the ground surfaces downstream of a dam showing the estimated encroachment by water released because of failure of a dam or from abnormal flows released through a dam's spillway.

**Invert:** Elevation at the bottom of a pipe, conduit, or culvert.

**Levee:** An artificial protective barrier built adjacent to a waterway to prevent flooding of bordering land.

**Maximum Water Surface:** The highest acceptable water surface elevation with all factors affecting the safety of the structure considered. It is the highest water surface elevation resulting from a computed routing of the inflow design flood through the reservoir under established operating criteria. This surface is also the top of a surcharge capacity.

# Glossary

**Minimum Streamflow:** A rate of flow established by administrative rule necessary to support aquatic life or minimize pollution.

**Normal Water Surface:** The highest elevation at which water is normally stored, or the design surface elevation which the reservoir is expected to be operated.

**Order:** Agency action expressed orally or in writing directed to a named person or persons; includes any agency decision issued in connection with a contested case hearing.

**Outlet Works:** A device to provide controlled releases from a reservoir.

**Piping:** A characteristic type of erosion of embankment or foundation material (soil) due to leakage. The action of water passing through a soil mass resulting in removal of particles leading to the development of channels or “pipes”.

**Precipitation, Probable Max (PMP):** The greatest amount of precipitation possible resulting from a specified size storm occurring during a distinct period of time at a particular geographic location.

**Reservoir:** A body of water impounded by a dam or other artificial construction in which water can be stored.

**Reservoir Surface Area:** Ground surface area covered by water when a reservoir is filled to a specified level.

**Risk:** The relationship between the consequences resulting from an adverse event and its probability of occurrence.

**Seepage:** The slow movement or percolation of water through a permeable medium; specifically, flow through small cracks, voids, or interstices in a dam, abutment, or foundation.

**Soil:** Sediments or other unconsolidated and non-cemented aggregations of particles produced by the chemical/mechanical disintegration of rocks.

**Spillway:** A structure over or through which flow is discharged from a reservoir. If the rate of flow is controlled by mechanical means such as gates, it is considered a controlled spillway. If the geometry of the spillway is the only control, then it is defined as an uncontrolled spillway.

**Spillway, Auxiliary:** Any secondary spillway that is designed to be operated very infrequently or only in anticipation of extreme climactic events.

**Spillway, Emergency:** A spillway that is designed to provide additional protection against overtopping of dams and is intended for use under extreme conditions such as misoperation or malfunction of the service spillway or other emergency conditions.

**Spillway, Primary:** A spillway that is designed to provide continuous or frequent regulated or unregulated releases from a reservoir without significant damage to either the dam or its appurtenant structures.

**Storage:** The retention of water or delay of runoff either by planned operation, as in a reservoir, or by temporary filling of overflow areas, as in the progression of flood wave through a natural stream channel.

**Storage, Active (Normal):** The volume of the reservoir that is readily available for beneficial use such as power generation, irrigation, flood control, water supply, fish culture, and others.

**Storage, Dead:** The volume of water that lies below the invert of the lowest outlet and that cannot readily be withdrawn from the reservoir.

**Toe of Dam:** Those portions of a dam slope that intersect natural ground surface, either upstream or downstream.

**Top of Dam (Crest):** The elevation of the uppermost surface of a dam, usually a road or walkway excluding any parapet wall, railing, etc.

**Valves:** Valves, as distinguished from gates, are constructed so that the closing member remains in the water passageway for all operating positions.

**Void:** Open spaces inside soil, rock or concrete that may be filled with air or water or some other gas or liquid.

**Watermaster:** Field representative (1 of 20 statewide) authorized by statute to regulate established water rights according to Oregon's water laws, based on the principle of prior appropriation.



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## E.37. Pennsylvania



**FEMA**



## CHAPTER 105. DAM SAFETY AND WATERWAY MANAGEMENT

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### Authority

The provisions of this Chapter 105 issued under section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); sections 5 and 402 of The Clean Streams Law (35 P. S. §§ 691.5 and 691.402); sections 302 and 402 of the Flood Plain Management Act (32 P. S. §§ 679.302 and 679.402); and sections 5, 7, 10, 11 and 17 of the Dam Safety and Encroachments Act (32 P. S. §§ 693.5, 693.7, 693.10, 693.11 and 693.17), unless otherwise noted.

### Source

The provisions of this Chapter 105 rescinded and readopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843, unless otherwise noted. Immediately preceding text appears at serial pages (38843), (47970) to (47983), (38854) to (38859), (47990) to (47994), (38864), (38865), (47996) to (47998), (38868) to (38891) and (49597) to (49598).

### Notes of Decisions

The Department regulations providing for exception to maximum peak particle velocity and noise requirements during surface mining blasting operations in close proximity to certain structures were unreasonable since they made a distinction between ownership of the structure at the location of the blasting. *Department of Environmental Resources v. Croner, Inc.*, 618 A.2d 1135 (Pa. Cmwlth. 1992).

### Cross References

This chapter cited in 25 Pa. Code § 71.21 (relating to content of official plans); 25 Pa. Code § 77.459 (relating to stream diversions, water obstructions and encroachments); 25 Pa. Code § 77.523 (relating to water obstructions and encroachments); 25 Pa. Code § 77.527 (relating to sedimentation controls); 25 Pa. Code § 77.531 (relating to dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 77.631 (relating to general requirements); 25 Pa. Code § 86.6 (relating to extraction of coal incidental to government-financed construction or government-financed reclamation projects); 25 Pa. Code § 87.71 (relating to stream diversions, water obstructions and encroachments); 25 Pa. Code § 87.73 (relating to dams, ponds, embankments and impoundments); 25 Pa. Code § 87.104 (relating to stream channel diversions); 25 Pa. Code § 87.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 87.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 87.160 (relating to haul roads and access roads); 25 Pa. Code § 88.51 (relating to stream diversions, obstructions and encroachments); 25 Pa. Code § 88.53 (relating to

dams, ponds, embankments and impoundments); 25 Pa. Code § 88.94 (relating to hydrologic balance: stream diversions); 25 Pa. Code § 88.102 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 88.103 (relating to hydrologic balance: coal processing waste dams and embankments); 25 Pa. Code § 88.138 (relating to haul roads and access roads: general); 25 Pa. Code § 88.189 (relating to hydrologic balance: stream diversions); 25 Pa. Code § 88.197 (relating to hydrologic balance: ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 88.198 (relating to hydrologic balance: coal processing waste dams and embankments); 25 Pa. Code § 88.231 (relating to haul roads and access roads: general); 25 Pa. Code § 88.294 (relating to hydrologic balance: stream diversions); 25 Pa. Code § 88.298 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 88.302 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 88.303 (relating to hydrologic balance: coal processing waste dams and embankments); 25 Pa. Code § 88.335 (relating to haul roads and access roads: general); 25 Pa. Code § 89.26 (relating to roads); 25 Pa. Code § 89.56 (relating to stream channel diversions); 25 Pa. Code § 89.111 (relating to large impoundments); 25 Pa. Code § 90.36 (relating to stream diversions, water obstructions and encroachments); 25 Pa. Code § 90.105 (relating to stream channel diversions); 25 Pa. Code § 90.108 (relating to hydrologic balance: sedimentation ponds); 25 Pa. Code § 90.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 90.122 (relating to coal refuse disposal); 25 Pa. Code § 90.134 (relating to haul roads and access roads: general); 25 Pa. Code § 90.202 (relating to general requirements); 25 Pa. Code § 90.205 (relating to alternatives analysis); 25 Pa. Code § 92.17 (relating to other chapters applicable); 25 Pa. Code § 96.3 (relating to water quality protection requirements); 25 Pa. Code § 102.14 (relating to riparian buffer requirements); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); 25 Pa. Code § 236.128 (relating to natural resources); 25 Pa. Code § 236.147 (relating to surface geology and hydrology); 25 Pa. Code § 245.234 (relating to siting requirements); 25 Pa. Code § 250.1 (relating to definitions); 25 Pa. Code § 250.309 (relating to MSCs for surface water); 25 Pa. Code § 250.406 (relating to relationship to surface water quality requirements); 25 Pa. Code § 271.915 (relating to management practices); 25 Pa. Code § 273.202 (relating to areas where municipal waste landfills are prohibited); 25 Pa. Code § 273.213 (relating to access roads); 25 Pa. Code § 273.243 (relating to sedimentation ponds); 25 Pa. Code § 273.244 (relating to discharge structures); 25 Pa. Code § 277.202 (relating to areas where construction/demolition waste landfills are prohibited); 25 Pa. Code § 277.213 (relating to access roads); 25 Pa. Code § 277.242 (relating to soil erosion and sedimentation control); 25 Pa. Code § 277.243 (relating to sedimentation ponds); 25 Pa. Code § 277.244 (relating to discharge structures); 25 Pa. Code § 279.202 (relating to areas where transfer facilities are prohibited); 25 Pa. Code § 279.213 (relating to access roads); 25 Pa. Code § 279.232 (relating to soil erosion and sedimentation control); 25 Pa. Code § 281.202 (relating to areas where general composting facilities are prohibited); 25 Pa. Code § 281.212 (relating to access roads); 25 Pa. Code § 281.252 (relating to soil erosion and sedimentation control); 25 Pa. Code § 281.253 (relating to sedimentation ponds); 25 Pa. Code § 283.213 (relating to access roads); 25 Pa. Code § 283.232 (relating to soil erosion and sedimentation control); 25 Pa. Code § 285.123 (relating to impoundments—general); 25 Pa. Code § 288.213 (relating to access roads); 25 Pa. Code § 288.243 (relating to sedimentation ponds); 25 Pa. Code § 288.244 (relating to discharge structures); 25 Pa. Code § 288.422 (relating to areas where Class I residual waste landfills are prohibited); 25 Pa. Code § 288.522 (relating to areas where Class II residual waste landfills are prohibited); 25 Pa. Code § 288.622 (relating to areas where Class III residual waste landfills are prohibited); 25 Pa. Code § 289.223 (relating to access roads); 25 Pa. Code § 289.253 (relating to sedimentation ponds); 25 Pa. Code § 289.254 (relating to discharge structures); 25 Pa. Code § 289.422 (relating to areas where Class I residual waste disposal impoundments are prohibited); 25 Pa. Code § 289.522 (relating to areas where Class II residual waste disposal impoundments are prohibited); 25 Pa. Code § 293.202 (relating to areas where transfer facilities are prohibited); 25 Pa. Code § 293.213 (relating to access roads); 25 Pa. Code § 293.232 (relating to soil erosion and sedimentation control); 25 Pa. Code § 295.202 (relating to areas where composting facilities are prohibited); 25 Pa. Code § 295.212 (relating to access roads); 25 Pa. Code § 295.252 (relating to soil erosion and sedimentation control); 25 Pa. Code § 295.253 (relating to sedimentation

ponds); 25 Pa. Code § 297.202 (relating to areas where incinerators and other processing facilities are prohibited); 25 Pa. Code § 297.213 (relating to access roads); 25 Pa. Code § 297.232 (relating to soil erosion and sedimentation control); 25 Pa. Code § 299.141 (relating to scope); 25 Pa. Code § 299.142 (relating to general requirements); 58 Pa. Code § 51.61 (relating to permits required for disturbance of waterways or watersheds); and 67 Pa. Code § 459.10a (relating to bridge occupancy).

## **Subchapter A. GENERAL PROVISIONS**

### **GENERAL**

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**GENERAL****§ 105.1. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Act*—The Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27).

*Along*—Touching or contiguous; to be in contact with; to abut upon.

*Appurtenant works*—Structures or materials incident to or annexed to dams or water obstructions which are built or maintained in connection with the dams or water obstructions and are essential to their proper functioning. For dams, the term includes, but is not limited to:

- (i) Structures such as spillways, either in the dam or separate therefrom.
- (ii) Low level outlet works.
- (iii) Conduits such as tunnels, pipelines or penstocks through the dam or its abutments.

*Archaeological site*—A known site of archaeological significance based on the Comprehensive State Plan for Conservation of Archaeological Resources. The Comprehensive State Plan is available from the Historic and Museum Commission, Bureau of Historic Preservation, Box 1026, Harrisburg, Pennsylvania 17108.

*Body of water*—A natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Bridge*—A structure and its appurtenant works erected over the regulated waters of this Commonwealth.

*Commercially navigable waters of the Delaware River and its navigable tributaries*—Portions of the Delaware River from the Delaware border in the south to the railroad bridge at Morrisville in the north; the Schuylkill River below Fairmount Dam; Chester Creek below Ninth Street; Crum Creek below the Route 291 (Industrial Highway) Bridge; Darby Creek below 84th Street; Neshaminy Creek below the Route 13 Bridge; Pennypack Creek below the Frankford Avenue Bridge; and Ridley Creek below the Baltimore and Ohio Railroad Bridge in Chester.

*Construct*—To erect, build, place or deposit including preliminary preparation of a site for construction.

*Course*—The path taken by a stream, floodway or body of water.

*Cross section*—The area from the top of the bank to the top of the opposite bank of a stream or body of water as cut by a vertical plane passed at a right angle to the course of the stream.

*Culvert*—A structure with appurtenant works which carries a stream under or through an embankment or fill.

*Current*—The rate or velocity of flow of water in a stream, floodway or body of water.

*Dam*—An artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid, or a refuse bank, fill or structure for highway, railroad or other purposes which does or may impound water or another fluid or semifluid.

*Design flood*—A specified discharge for which the hydraulic capacity of a structure is designed.

*Discharge of dredged material*—An addition, deposit, disposal or discharge of dredged material into the regulated waters of this Commonwealth including, but not limited to, the addition of dredged material to a specific disposal site located in the regulated waters of this Commonwealth and the runoff or overflow of dredged material from a contained land or water disposal area. The term does not include plowing, cultivating, seeding and harvesting for the production of food, fiber and forest products.

*Discharge of fill material*—

(i) An addition, deposit, disposal or discharge of fill into the regulated waters of this Commonwealth, including, but not limited to, the following types of construction:

(A) Fill that is necessary for the construction of a structure in a regulated water of this Commonwealth.

(B) A structure or impoundment requiring rock, sand, soil or other material for its construction.

(C) Site-development fills for recreational, industrial, commercial, residential and other uses.

(D) Causeways or roadfills.

(E) Dams and dikes.

(F) Artificial islands.

(G) Property protection or reclamation devices, such as riprap, groins, seawalls, breakwaters and revetments.

(H) Levees.

(I) Fill for structures such as sewage treatment facilities.

(J) Intake and outfall pipes associated with power plants and subaqueous utility lines.

(K) Artificial reefs.

(ii) The term does not include plowing, cultivating, seeding and harvesting for the production of food, fiber and forest products.

*Dredge*—To remove sand, gravel, mud or other materials from the beds of regulated waters of this Commonwealth.

*Dredged material*—A material that is excavated or dredged from the regulated waters of this Commonwealth.

*Encroachment*—A structure or activity which changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water.

*FEMA*—The Federal Emergency Management Agency.

*Fill*—Sand, gravel, earth or other material placed or deposited to form an embankment or raise the elevation of the land surface. The term includes material used to replace an area with aquatic life with dry land or to change the bottom elevation of a regulated water of this Commonwealth.

*Flood*—A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers or other waters of this Commonwealth.

*Floodplain*—The lands adjoining a river or stream that have been or may be expected to be inundated by flood waters in a 100-year frequency flood.

*Floodway*—The channel of the watercourse and portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

*Freeboard*—The vertical distance between the water surface elevation experienced during the design flood and the crest elevation of a dam levee, flood-wall or other embankment.

*Height of dam*—The vertical measurement expressed in feet as measured from the downstream toe of the dam at its lowest point to the elevation of the top of the dam.

*High hazard dam*—A dam so located as to endanger populated areas downstream by its failure.

*Inundation area*—The land area subject to flood waters as the result of failure of a dam.

*Levee*—An earth embankment or ridge constructed along a water course or body of water to confine water within prescribed limits; the term is also known as a dike.

*Limited Power and Water Supply Act*—The act of June 14, 1923 (P. L. 700, No. 293) (32 P. S. §§ 621—625); and the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. §§ 591—600).

*Maintenance dredging*—Dredging conducted as part of construction of a dam, water obstruction or encroachment, and periodic dredging conducted to accomplish one or more of the following purposes:

- (i) Maintain adequate depths for navigation.
- (ii) Assure proper passage of ice and flood flows.
- (iii) Preserve the safety, stability and proper operation of the dam, water obstruction or encroachment.

*Mitigation*—

- (i) An action undertaken to accomplish one or more of the following:
  - (A) Avoid and minimize impacts by limiting the degree or magnitude of the action and its implementation.
  - (B) Rectify the impact by repairing, rehabilitating or restoring the impacted environment.

(C) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

(ii) If the impact cannot be eliminated by following clauses (A)—(C), compensate for the impact by replacing the environment impacted by the project or by providing substitute resources or environments.

*Normal pool elevation*—

(i) For bodies of water which have no structural measures to regulate height of water, the height of water at ordinary stages of low water unaffected by drought.

(ii) For structurally regulated bodies of water, the elevation of the spillway, outlet control or dam crest which maintains the body of water at a specified height.

(iii) This term does not apply to wetlands.

*100-year frequency flood*—The flood magnitude expected to be equaled or exceeded on the average of once in 100 years; it may also be expressed as the flood having a 1.0% chance of being equaled or exceeded in a given year.

*Operation*—Elements of the use, control and functioning of a dam, water obstruction or encroachment during the lifetime of the dam, water obstruction or encroachment, including its removal, which may affect primarily the storage, release or flow of water; the structural safety of a dam, water obstruction or encroachment; or navigation, with due consideration of the other purposes of the act.

*Ordinary low water mark*—The water surface elevation at ordinary stages of low water, unaffected by drought and unchanged by artificial means.

*Owner*—A person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*PMF—Probable maximum flood*—The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in an area. The PMF is derived from the probable maximum precipitation (PMP) as determined on the basis of data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

*Parcel*—A portion of land formally set forth and described in a conveyance.

*Person*—A natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and a department, board, commission or authority of the Commonwealth.

*Political subdivision*—A county, city, borough, incorporated town, township, school district, authority or other governmental unit or a combination thereof acting jointly.

*Public service corporation or public utility*—A corporation, association or other corporate body having the powers and privileges of corporations not possessed by individuals or partnerships which entity renders a public utility service. The term does not include a municipality or municipal authority.

*Public service line*—The term includes, but is not limited to, electric transmission lines, gas pipelines, telephone lines, water lines, railroad trackage and other facilities owned or operated by public service corporations.

*Public utility service*—The rendering of one or more of the following services for the public:

- (i) Gas, electricity or steam production, generation, transmission or distribution.
- (ii) Water diversion, pumping, impoundment or distribution.
- (iii) Railroad transportation of passengers or property.
- (iv) Operation of a canal, turnpike, tunnel, bridge, wharf or similar structure.
- (v) Transportation of natural or artificial gas, crude oil, gasoline or petroleum products, materials for refrigeration or other fluid substances by pipeline or conduit.
- (vi) Telephone or telegraph communications.
- (vii) Sewage collection, treatment or disposal.

*Regulated waters of this Commonwealth*—Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Replacement*—The construction of a new wetland or restoration of a previously destroyed wetland, or both.

*Reservoir*—A natural or artificial basin, which contains or will contain the water or other fluid or semifluid impounded by a dam.

*Safety*—Security from the risk or threat of significant loss or injury to life, health, property and the environment.

*Small projects*—Water obstructions or encroachments located in a stream or floodplain which will have an insignificant impact on safety and protection of life, health, property and the environment.

*Spillway*—A device which safely conveys the design flood of a dam without endangering its safety or integrity.

*Storage capacity*—The volume as expressed in acre-feet of the impounded water to the maximum storage level, that is, the top of the dam.

*Stormwater management facilities*—anmade measures designed and constructed to convey stormwater runoff away from structures or improved land uses, or to control, detain or manage stormwater runoff to avoid or reduce downstream damages. The term includes, but is not limited to, transportation and related facility drainage systems and manmade stormwater detention basins. The term does not include replacement wetlands or major dams and reservoirs constructed for water supply, recreation, river basin flood control or other regional or basin-wide purposes.

*Stream*—A watercourse.

*Stream crossings*—A pipeline, aerial cable or similar structure which is placed in, along, under, across or over the regulated waters of this Commonwealth.

*Stream enclosure*—A bridge, culvert or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated water of this Commonwealth.

*Submerged lands of this Commonwealth*—Waters and permanently or periodically inundated lands owned by the Commonwealth, including lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*U.S.G.S.*—United States Geological Survey.

*Watercourse*—A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Water obstruction*—

(i) A dike, bridge, culvert, wall, wingwall, fill, pier, wharf, embankment, abutment or other structure located in, along or across or projecting into a watercourse, floodway or body of water.

(ii) In the case of ponds, lakes and reservoirs, a water obstruction is considered to be in or along the body of water if, at normal pool elevation, the water obstruction is either in the water or adjacent to and abutting the water's edge.

*Water Obstructions Act*—The act of June 25, 1913 (P. L. 555, No. 355) (32 P. S. §§ 681—691), repealed by section 27 of the act of October 23, 1979 (P. L. 204, No. 70) (32 P. S. § 693.27).

*Wetland functions*—Include, but are not limited to, the following:

(i) Serving natural biological functions, including food chain production; general habitat; and nesting, spawning, rearing and resting sites for aquatic or land species.

(ii) Providing areas for study of the environment or as sanctuaries or refuges.

(iii) Maintaining natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, natural water filtration processes, current patterns or other environmental characteristics.

(iv) Shielding other areas from wave action, erosion or storm damage.

(v) Serving as a storage area for storm and flood waters.

(vi) Providing a groundwater discharge area that maintains minimum baseflows.

(vii) Serving as a prime natural recharge area where surface water and groundwater are directly interconnected.

(viii) Preventing pollution.

(ix) Providing recreation.

*Wetlands*—Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal

circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Wild trout streams*—A stream classified as supporting naturally reproducing trout populations by the Fish Commission. For a list of wild trout streams, the Fish Commission can be contacted at: Fish Commission, Bureau of Fisheries, Division of Fisheries Management, 450 Robinson Lane, Bellefonte, Pennsylvania 16823-9616.

#### Authority

The provisions of this § 105.1 amended under the Dam and Safety Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.1 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended October 6, 1978, effective October 7, 1978, 8 Pa.B. 2723; amended November 2, 1979, effective November 3, 1979, 9 Pa.B. 3640; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended February 18, 1983, effective February 19, 1983, 13 Pa.B. 781; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (139040), (117637) to (117640) and (141411).

#### Cross References

This section cited in 25 Pa. Code § 96.3 (relating to water quality protection requirements); 25 Pa. Code § 105.13 (relating to permit applications—information and fees); 25 Pa. Code § 105.14 (relating to review of applications); 25 Pa. Code § 105.20a (relating to wetland replacement criteria); 25 Pa. Code § 105.53 (relating to inspections by owners and inspection reports); and 25 Pa. Code § 105.452 (relating to status of prior converted cropland—statement of policy).

### § 105.2. Purposes.

The purposes of this chapter are to:

- (1) Provide for the comprehensive regulation and supervision of dams, reservoirs, water obstructions and encroachments in the Commonwealth in order to protect the health, safety, welfare and property of the people.
- (2) Assure proper planning, design, construction, maintenance, monitoring and supervision of dams and reservoirs, including preventive measures necessary to provide an adequate margin of safety.
- (3) Assure proper planning, design, construction, maintenance and monitoring of water obstructions and encroachments, in order to prevent unreasonable interference with water flow and to protect navigation.
- (4) Protect the natural resources, environmental rights and values secured by PA. CONST. art. I, § 27 and conserve and protect the water quality, natural regime and carrying capacity of watercourses.

**Source**

The provisions of this § 105.2 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 27, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47975).

**§ 105.3. Scope.**

(a) The following structures or activities are regulated under the act and section 302 of the Flood Plain Management Act (32 P. S. § 679.302):

(1) Dams on a natural or artificial watercourse, other than those licensed under the Federal Power Act (16 U.S.C.A. §§ 791a—825s), where one or more of the following occur:

(i) The contributory drainage area exceeds 100 acres.

(ii) The greatest depth of water measured by upstream toe of the dam at maximum storage elevation exceeds 15 feet.

(iii) The impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(2) Dams used for the storage of water not located on a watercourse and which have no contributory drainage where the greatest depth of water measured at upstream toe of the dam at maximum storage elevation exceeds 15 feet and the impounding capacity at maximum storage elevation exceeds 50 acre-feet.

(3) Dams used for the storage of fluids or semifluids other than water, the escape of which may result in air, water or land pollution or in danger to persons or property.

(4) Water obstructions and encroachments other than dams located in, along or across, or projecting into a watercourse, floodway or body of water, whether temporary or permanent.

(5) Flood control projects constructed, owned or maintained by a governmental unit.

(b) For the purposes of this chapter, the Department's jurisdiction in and along Lake Erie will be defined by the high water elevation of 572.8 feet International Great Lakes Datum (IGLD) and low water elevation of 568.6 IGLD. Dams, water obstructions and encroachments constructed between elevation 572.8 IGLD and elevation 568.6 IGLD require a permit under section 6 of the act (32 P. S. § 693.6). Dams, water obstructions and encroachments constructed lakeward of elevation 568.6 IGLD require both a permit under section 6 of the act and a Submerged Lands License Agreement under section 15 of the act (32 P. S. § 693.15).

(c) The environmental assessment conducted under this chapter is applicable to dams, water obstructions and encroachments for which a permit or approval is required under this chapter.

**Authority**

The provisions of this § 105.3 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.3 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended October 6, 1978, effective October 7, 1978, 8 Pa.B. 2723; amended November 2, 1979, effective November 3, 1979, 9 Pa.B. 3640; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (141412) and (117643).

**Notes of Decisions**

Fill site must be sufficiently close to wetlands so as to be “along” them in order to invoke jurisdiction in action under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27). *Game Commission v. Department of Environmental Resources*, 509 A.2d 877 (Pa. Cmwlth. 1986); appeal granted 521 A.2d 934 (Pa. 1987); affirmed 555 A.2d 812 (Pa. 1989).

**Cross References**

This section cited in 25 Pa. Code § 105.71 (relating to scope); 25 Pa. Code § 105.141 (relating to scope); 25 Pa. Code § 105.181 (relating to scope); 25 Pa. Code § 105.221 (relating to scope); 25 Pa. Code § 105.251 (relating to scope); 25 Pa. Code § 105.291 (relating to scope); 25 Pa. Code § 105.321 (relating to scope); 25 Pa. Code § 105.361 (relating to scope); and 25 Pa. Code § 105.391 (relating to scope).

**§ 105.4. Delegations to local agencies.**

(a) Under section 17 of the act (32 P. S. § 693.17) and subject to this section, the Department may by written agreement delegate to a county conservation district or other county agency one or more of its regulatory functions including enforcement and the power to permit, inspect and monitor specified categories of water obstructions and encroachments.

(b) No delegation may be made of the authority to issue permits for a water obstruction or encroachment constructed, owned or maintained by the Commonwealth, a political subdivision or a public utility. Delegations may be made of the powers to inspect and monitor the activities, if the Department retains final authority to approve or disapprove permits, and concurrent authority to inspect, monitor and enforce the act.

(c) To the extent delegated by the agreement, the delegations may include the authority to enforce the act and this chapter and to exercise other powers and duties otherwise vested in the Department to implement the act with respect to the categories of water obstructions and encroachments covered by the delegation.

(d) A delegation agreement shall:

- (1) Specify the powers and duties to be performed by the delegated agency.

- (2) Specify the categories of water obstructions and encroachment activities to be covered by the delegated agency.
  - (3) Provide for the commitment by the delegated agency of sufficient trained staff and resources to perform the powers and duties to be delegated.
  - (4) Require the delegated agency to maintain records of activities performed under the delegation.
  - (5) Provide for monitoring and supervision by the Department of performance by the delegated agency of the functions delegated under the agreement.
- (e) A permit for a water obstruction or encroachment issued by a delegated agency is subject to review by the Department, unless the right of review is waived by the Department. A permit issued by a delegated agency shall become effective 30 days following the receipt of notice by the Department of issuance, unless the permit is disapproved by the Department or an appeal is filed with the Department under section 17 of the act (32 P. S. § 693.17).
- (f) When the Department delegates one or more of its regulatory functions to a local agency, the Department will retain the concurrent power to inspect and monitor categories of water obstructions and encroachments and to enforce the act and this chapter.

#### Authority

The provisions of this § 105.4 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.4 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117643) to (117644).

#### Cross References

This section cited in 25 Pa. Code § 105.446 (relating to procedure for issuance).

## PERMIT APPLICATIONS

### § 105.11. Permit requirements.

- (a) A person may not construct, operate, maintain, modify, enlarge or abandon a dam, water obstruction or encroachment without first obtaining a written permit from the Department.
- (b) An existing dam, water obstruction or encroachment constructed under a license or permit issued in compliance with the act of June 8, 1907 (P. L. 496, No. 322) (53 P. S. § 16834 note and 55 P. S. §§ 332.1 and 332.2) or the Water Obstructions Act, shall be deemed to comply with the construction and operating

permit requirements of this section. These projects shall, after September 27, 1980, comply with the operating, maintenance, monitoring and other requirements of this chapter.

(c) The owner of an existing dam, water obstruction or encroachment who does not hold a permit issued under the act of June 8, 1907 (P. L. 496, No. 322) or the Water Obstructions Act shall apply for and receive a permit to operate and maintain the facility under the act on or before January 1, 1981. For purposes of this subsection, a limited power permit issued under the Limited Power and Water Supply Act will be deemed to have been issued under the Water Obstructions Act. These projects shall comply with the operating, maintenance, monitoring and other requirements established under the act.

(d) A permit issued by the Department after July 1, 1979 for the construction and operation of a water obstruction or encroachment shall incorporate authorization for normal repairs and maintenance of permitted structures conducted within the original specifications for the water obstruction or encroachment. A repair or maintenance involving modification of the water obstruction or encroachment from its original specifications and a repair or reconstruction involving a substantial portion of the structure shall require the prior written permit of the Department under subsection (a).

(e) A dam, water obstruction or encroachment or modification thereof, constructed or authorized pursuant to the terms of a permit issued under this chapter prior to October 12, 1991, shall be deemed to comply with the construction permit requirements of this subchapter. These projects shall, after October 12, 1991, comply with the operating, maintenance, monitoring and other requirements of this chapter.

#### Authority

The provisions of this § 105.11 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.11 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117644) to (117645).

#### Notes of Decisions

##### *Cause of Action*

A builder's allegation that the township approved a subdivision plan in the absence of a permit from the Department of Environmental Protection is not a cognizable cause of action because it is the Department which enforces this regulation, not the local agency; furthermore, this regulation does not create a private cause of action. *Shafer v. Waite*, 43 D. & C. 4th 91 (1999).

##### *Failure to Obtain Permit*

Appellant, who placed fill on his land without a permit which constituted an unlawful encroachment on wetlands in violation of the law, could not claim Department of Environment Protection's issuing of compliance order effected an unconstitutional, regulatory taking of property rights because Appellant failed to apply for a permit. *Baehler v. Department of Environmental Protection*, 863 A.2d 57, 59–60 (Pa. Cmwlth. 2004).

**Cross References**

This section cited in 25 Pa. Code § 105.14 (relating to review of applications); 25 Pa. Code § 105.52 (relating to inspection); and 25 Pa. Code § 105.443 (relating to nature of a general permit; substitution for individual applications and permits).

**§ 105.12. Waiver of permit requirements.**

(a) Under section 7 of the act (32 P. S. § 693.7), the requirements for a permit are waived for the following structures or activities, regardless of when commenced. If the Department upon complaint or investigation finds that a structure or activity which is eligible for a waiver, has a significant effect upon safety or the protection of life, health, property or the environment, the Department may require the owner of the structure to apply for and obtain a permit under this chapter.

(1) A dam not exceeding 3 feet in height in a stream not exceeding 50 feet in width, except wild trout streams designated by the Fish Commission.

(2) A water obstruction in a stream or floodway with a drainage area of 100 acres or less. This waiver does not apply to wetlands located in the floodway.

(3) An aerial crossing of a nonnavigable stream or wetland by electric, telephone or communications lines which are not located in a Federal wilderness area or watercourse or body of water designated as a wild or scenic river under the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§ 1271—1287) or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29). This waiver applies to one or more wires attached aboveground to single poles. This does not apply to the maintenance and construction of towers, roads or other water obstructions or encroachments.

(4) A dam subject to the requirements of the Mine Safety and Health Administration, 30 CFR 77.216-1 and 77.216-2 (relating to water, sediment or slurry impoundments and impounding structures; identification; and water, sediment, or slurry impoundments or impounding structures; minimum plan requirements; changes or modifications; certification), if the Department determines on the basis of preliminary data submitted by the applicant that the dam is of Size Classification C and Hazard Potential Classification 3 as defined in § 105.91 (relating to classification of dams and reservoirs) and is not located in a watercourse or body of water designated as a wild and scenic river under the Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act.

(5) A water obstruction or encroachment located in, along, across or projecting into a wetland or impoundment, constructed and maintained for the purpose of treating acid mine drainage, sewage or other waste, if the wetland or impoundment is a treatment facility constructed under a valid permit issued by the Department under the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.31), The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. §§ 3301—3326), the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Oil and Gas Act (58 P. S. §§ 601.101—601.605) and the Pennsylvania Sewage Facilities Act (35 P. S. §§ 750.1—750.20).

(6) A water obstruction or encroachment located in, along, across or projecting into a stormwater management facility or an erosion and sedimentation pollution control facility which meets the requirements in Chapter 102 (relating to erosion and sediment control), if the facility was constructed and continues to be maintained for the designated purpose.

(7) Maintenance of field drainage systems that were constructed and continue to be used for crop production. Crop production includes:

- (i) Plowing, cultivating, seeding, grazing or harvesting.
- (ii) Crop rotation.
- (iii) Government set aside programs.

(8) Plowing, cultivating, seeding or harvesting for crop production.

(9) Construction and maintenance of ford crossings of streams for individual private personal use which require only grading of banks for approach roads and the placement of not more than 12 inches of gravel for roadway stability. Fords may not be used for commercial purposes and shall cross the regulated waters of this Commonwealth in the most direct manner. This waiver does not apply in exceptional value streams as listed under Chapter 93 (relating to water quality standards) or in wild trout streams.

(10) A navigational aid or marker, buoy, float, ramp or other device or structure for which a permit has been issued by the Fish Commission under 30 Pa.C.S. § 5123(a)(7) (relating to general boating regulations).

(11) The removal of abandoned dams, water obstructions and encroachments if the Department determines in writing on the basis of data, information or plans submitted by the applicant that the removal of the abandoned dam water obstruction or encroachment cannot imperil life or property, have significant effect on coastal resources or have an adverse impact on the environment, and the plans provide for restoration and stabilization of the project area.

(12) The construction, operation or removal of staff gages, water recording devices, water quality testing devices, including, but not limited to, sensors, intake tubes, weirs and small buildings which contain required instruments and similar scientific structures.

(13) A bridge or culvert purchased from an operating railroad company subsequent to the abandonment of the railroad line, track, spur or branch pursuant to the approval of the Interstate Commerce Commission. Major maintenance or reconstruction, or stream dredging may not be undertaken until the new owner obtains a permit under this chapter.

(14) The maintenance of an artificial pond or reservoir to its original storage capacity where:

- (i) The contributory drainage area is less than or equal to 100 acres.
- (ii) The greatest depth of water at maximum storage elevation is less than or equal to 15 feet.
- (iii) The impounding capacity at maximum storage elevation is less than or equal to 50 acre feet.

(15) The construction and maintenance of an encroachment or water obstruction on an abandoned mining site, where the Department has issued a notice of intent to forfeit the bond for a mining activity permitted after July 1982.

(16) Restoration activities undertaken and conducted pursuant to a restoration plan which has been approved, in writing, by the Department.

(b) The requirements for a permit for existing structures or activities, as provided in section 6(c) of the act (32 P. S. § 693.6(c)), are waived for the following structures or activities, if construction was completed prior to July 1, 1979. If the Department upon complaint or investigation finds that a structure or activity which is eligible for a waiver, has a significant effect upon safety or the protection of life, health, property or the environment, the Department may require the owner of the structure or activity to apply for and obtain a permit under this chapter.

(1) A dam not exceeding 5 feet in height in a nonnavigable stream operated and maintained for water supply purposes.

(2) A dam which the Department determines, on the basis of preliminary data submitted by the applicant, is of Size Classification C and Hazard Potential Classification 3, as defined in § 105.91 and does not have a significant effect on coastal resources or an adverse impact on the environment.

(3) A fill not located on navigable lakes and navigable rivers.

(4) A streambank retaining device.

(5) A stream crossing other than a crossing located on submerged lands of this Commonwealth and a crossing by pipelines for conveyance of petroleum products and gas.

(6) An outfall, headwall or water intake structure.

(7) A culvert, bridge or stream enclosure on a watercourse where the drainage area above the culvert, bridge or stream enclosure is 5 square miles or less.

(c) Structures and activities shall meet the construction, operation, maintenance, monitoring and other requirements of this chapter. No other permits which may be required under a law other than the act are waived by this section.

#### Authority

The provisions of this § 105.12 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.12 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117645) to (117647).

**Cross References**

This section cited in 25 Pa. Code § 105.15 (relating to environmental assessment); 25 Pa. Code § 105.21a (relating to public notice); 25 Pa. Code § 105.71 (relating to scope); 25 Pa. Code § 105.141 (relating to scope); 25 Pa. Code § 105.181 (relating to scope); 25 Pa. Code § 105.221 (relating to scope); 25 Pa. Code § 105.251 (relating to scope); 25 Pa. Code § 105.291 (relating to scope); 25 Pa. Code § 105.321 (relating to scope); 25 Pa. Code § 105.361 (relating to scope); and 25 Pa. Code § 105.391 (relating to scope).

**§ 105.13. Permit applications—information and fees.**

(a) Application for permits under this chapter shall be submitted to the Department, in writing, upon forms provided by the Department. Applicants are encouraged to request a meeting with the Department prior to submission of their applications.

(b) An application for a permit under this chapter, except applications submitted by Federal, State, county or municipal agencies or a municipal authority for a dam, water obstruction or encroachment shall be accompanied by a check payable to “Commonwealth of Pennsylvania” in accordance with the following schedule:

(1) *Dams.*

Class A	\$3000	(Based on Size Classification as defined in § 105.91)
Class B	\$2500	
Class C	\$1500	

(2) *Water obstructions and encroachments.*

Stream enclosures	\$350
Channel changes	\$300
Commercial dredging	\$300
Peat extraction	\$750
Fills, levees, floodwalls	\$350
Bridges and other water obstructions and encroachments	\$200
Small projects	\$100

(c) A single application may be submitted or a single permit may be issued for multiple structures and activities which are part of a single project or facility or part of related projects and facilities, located in a single county, constructed, operated or maintained by the same persons. When a single application covers multiple structures or activities other than a single structure and related maintenance dredging, the application fee shall be the sum of fees in subsection (b) for the applicable structures and activities. Stream crossings located within a single county for the installation of a public service line shall be treated as a single structure or activity but the application fee shall be the sum of fees for each stream crossing.

(d) An application for a permit shall be accompanied by information, maps, plans, specifications, design analyses, test reports and other data specifically

required by this chapter and additional information as required by the Department to determine compliance with this chapter.

(1) For all permit applications, except small projects, this information shall include, but is not limited to, the following:

(i) *A site plan.* A site plan shall include:

(A) A complete demarcation of the floodplains and regulated waters of this Commonwealth on the site. The wetlands shall be identified and delineated in accordance with the Department's Wetland Delineation Policy as published at § 105.451 (relating to identification and delineation of wetlands—statement of policy).

(B) Existing roads, utility lines, lots, other manmade structures and natural features such as contour lines and drainage patterns.

(C) Proposed structures or activities included in the project, which shall be identified by labeling.

(D) A scale of one inch equals 200 feet or larger.

(E) A north arrow.

(F) The name of the persons who prepared the plan, and the date and name of the applicants.

(G) A cross sectional view of the regulated waters to be impacted before and after the structure or activity is constructed.

(ii) *A location map.* The location map shall be of a scale factor of 1:24000 (standard U.S.G.S. Topographic Map). The location map shall show all natural features including the names and boundaries of regulated waters of this Commonwealth, natural areas, wildlife sanctuaries, natural landmarks, political boundaries, locations of public water supplies and other geographical or physical features including cultural, archeological and historical landmarks within 1 mile of the site. U.S.G.S. maps may be reviewed at County Conservation District Offices or obtained by writing to: United States Geological Survey Map Distribution, Box 25286 Federal Center, Denver, CO 80225.

(iii) *Project description.* A narrative of the project shall be provided which includes, but is not limited to:

(A) A description of the proposed structure or activity.

(B) The project purpose.

(C) The effect the project will have on public health, safety or the environment.

(D) A statement on water dependency. A project is water dependent when the project requires access or proximity to or siting within water to fulfill the basic purposes of the project.

(iv) *Color photographs.* Color photographs of the proposed site shall be submitted. The photos shall accurately depict the project area and provide a relative scale of the project to the surrounding area and a map showing the location and orientation of each photograph.

(v) *Stormwater management analysis.* If a watershed stormwater management plan has been prepared or adopted under the Stormwater Management Act (32 P. S. §§ 680.1—680.17), an analysis of the project's impact on the Stormwater Management Plan and a letter from the county or municipality commenting on the analysis shall be included.

(vi) *Floodplain management analysis.* If the proposed dam, water obstruction or encroachment is located within a floodway delineated on a FEMA map, include an analysis of the project's impact on the floodway delineation and water surface profiles and a letter from the municipality commenting on the analysis.

(vii) *Risk assessment.* If the stormwater or the floodplain management analysis conducted in subparagraphs (v) and (vi) indicates increases in peak rates of runoff or flood elevations, include a description of property and land uses which may be affected and an analysis of the degree of increased risk to life, property and the environment.

(viii) *Alternatives analysis.* A detailed analysis of alternatives to the proposed action, including alternative locations, routings or designs to avoid or minimize adverse environmental impacts.

(ix) *Mitigation plan.* Actions to be taken in accordance with the definition of mitigation in this chapter.

(x) *Impacts analysis.* A detailed analysis of the potential impacts, to the extent applicable, of the proposed project on water quality, stream flow, fish and wildlife, aquatic habitat, Federal and State forests, parks, recreation, instream and downstream water uses, prime farmlands, areas or structures of historic significance, streams which are identified candidates for or are included within the Federal or State wild and scenic river systems and other relevant significant environmental factors. If a project will affect wetlands the project description shall also include:

(A) A narrative of the delineation process supported by the appropriate data sheets and copies of appropriate soil maps and descriptions from soil conservation service soil surveys. Soil conservation service soil surveys may be obtained from the county conservation district offices.

(B) An analysis of whether the wetland is exceptional value as classified in § 105.17 (relating to wetlands).

(C) A statement on water dependency. A project is water dependent when the project requires access or proximity to or siting within water to fulfill the basic purposes of the project.

(2) An application for a project which will affect less than 1 acre of wetland where the wetland is not exceptional value wetland shall also include a description of functions and values of the existing wetlands to be impacted by the project, as defined in § 105.1 (relating to definitions).

(3) An application for a project which may have an affect on an exceptional value wetland or on 1 or more acres of wetland shall also include an

assessment of the wetland functions and values using a methodology accepted by the Department and a survey, conducted by a licensed professional land surveyor, of the wetland boundary as delineated and of the property lines of the parcel where the project is located.

(e) A permit application for small projects located in streams or floodplains shall be accompanied by the following information. This permit application may not be used for projects located in wetlands. If upon review the Department determines that more information is required to determine whether a small project will have an insignificant impact on safety and protection of life, health, property or the environment, the Department may require the applicant to submit additional information and processing fees required by this chapter.

(1) *A site plan.* A site plan shall include:

(i) The floodplains and regulated waters of this Commonwealth on the site, including wetlands, existing roads, utility lines, lots, other manmade structures, natural features such as slopes and drainage patterns, proposed structures or activities included in the project.

(ii) The names of the persons who prepared the plan.

(iii) The date and the name of applicants.

(iv) A north arrow.

(2) *A cross sectional view.* A cross sectional view of the affected regulated waters of this Commonwealth before and after the structure or activity is constructed.

(3) *A location map.* A map showing the geographic location of the project. U.S.G.S. topographic maps, FEMA maps or municipal maps are acceptable. FEMA and municipal maps may be obtained from local government offices. U.S.G.S. maps may be reviewed at county conservation district offices or obtained by writing to: United States Geological Survey Map Distribution, Box 25286 Federal Center, Denver, CO 80225.

(4) *Project description.* A narrative of the project shall be provided which includes, but is not limited to:

(i) A description of the proposed structure or activity.

(ii) The project purpose.

(iii) The effect the project will have on public health, safety or the environment.

(iv) The project's need to be in or in close proximity to water.

(5) *Color photographs.* Color photographs of the proposed site shall be submitted. The photos shall accurately depict the project area and provide a relative scale of the project to the surrounding area and a map showing the location and orientation of each photograph.

(f) Except for small projects, an application for a permit under this chapter shall be accompanied by proof of an application for an Earth Disturbance Permit or an erosion and sedimentation control plan for activities in the stream and earthmoving activities. The plan shall conform to the requirements contained in

Chapter 102 (relating to erosion and sediment control) and shall include a copy of a letter from the conservation district in the county where the project is located indicating that the district has reviewed the erosion and sediment control plan of the applicant and considered it to be satisfactory, if applicable. Earthmoving activities, including small projects, shall be conducted pursuant to an earth disturbance plan.

(g) An application shall be submitted by the person who owns or has primary responsibility for the proposed dam or reservoir, water obstruction or encroachment. If an application is submitted by a person with primary responsibility for the structure or activity, the owner of a dam or reservoir, water obstruction or encroachment will not thereby be relieved of legal duties or responsibilities for the structure or activity as imposed by the act or this chapter.

(h) An application shall be signed by the owners of the dam or reservoir, water obstruction or encroachment, or the persons exercising primary responsibility for the dam or reservoir, water obstruction or encroachment. In the case of a partnership, one or more members of the partnership authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice president or other responsible official empowered to sign for the corporation. In the case of a political subdivision, it shall be signed by the chief officers of the political subdivision or other responsible official empowered to sign for the political subdivision, with the seal affixed and attested by the clerk.

(i) Plans, specifications and reports accompanying applications for any category of dams, or for bridges and other water obstructions or encroachments which would pose a threat to human life or substantial potential risk to property shall be affixed with the seal of a registered professional engineer and a certification, signed by the registered professional engineer, which shall read as follows:

“I (name) do hereby certify pursuant to the penalties of 18 Pa.C.S.A. Sec. 4904 to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Resources.”

(j) The Department may waive the specific information requirements of this section in writing, in the record of decision, if upon review of the permit application, the Department finds that specific information is not necessary to review the application.

#### Authority

The provisions of this § 105.13 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.13 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117647) to (117649).

**Notes of Decisions***Needs Analysis*

Where the applicant failed to submit a proper alternatives/justification analysis and parking needs could have been met elsewhere, the Environmental Hearing Board concluded that petitioner did not justify the need to fill wetlands. *Hatchard v. Department of Environmental Resources*, 612 A.2d 621 (Pa. Cmwlth. 1992).

**Cross References**

This section cited in 25 Pa. Code § 105.15 (relating to environmental assessment); 25 Pa. Code § 105.81 (relating to permit applications for construction and modification of dams and reservoirs); 25 Pa. Code § 105.82 (relating to permit applications for operation and maintenance of existing dams and reservoirs); 25 Pa. Code § 105.151 (relating to permit applications for construction or modification of culverts and bridges); 25 Pa. Code § 105.152 (relating to permit applications for operation and maintenance of existing culverts and bridges); 25 Pa. Code § 105.191 (relating to permit applications for construction or modification of stream enclosures); 25 Pa. Code § 105.192 (relating to permit applications for operation and maintenance of existing stream enclosures); 25 Pa. Code § 105.231 (relating to permit applications for construction or modification of channel changes and dredging for facility construction and maintenance); 25 Pa. Code § 105.261 (relating to permit applications for construction or modification of fills, levees, floodwalls and streambank retaining devices); 25 Pa. Code § 105.262 (relating to permit applications for existing fills, levees, floodwalls and streambank retaining devices); 25 Pa. Code § 105.301 (relating to permit applications for construction or modification); 25 Pa. Code § 105.302 (relating to permit applications for existing stream crossings by pipelines for conveyance of petroleum products and gas); 25 Pa. Code § 105.331 (relating to permit applications); 25 Pa. Code § 105.371 (relating to permits: content of application); and 25 Pa. Code § 105.401 (relating to permit applications).

**§ 105.14. Review of applications.**

(a) An application will be reviewed to determine the proposed project's effect on health, safety and the environment, in accordance with prevailing practices in the engineering profession and in accordance with current environmental principles.

(b) In reviewing a permit application under this chapter for construction or substantial modification of a dam or reservoir, water obstruction or encroachment, the Department will use the following factors to make a determination of impact:

- (1) Potential threats to life or property created by the dam, water obstruction or encroachment.
- (2) Potential threats to safe navigation created by the dam, water obstruction or encroachment.
- (3) The effect of the dam, water obstruction or encroachment on the property or riparian rights of owners above, below or adjacent to the project.

(4) The effect of the dam, water obstruction or encroachment on regimen and ecology of the watercourse or other body of water, water quality, stream flow, fish and wildlife, aquatic habitat, instream and downstream uses and other significant environmental factors.

(5) The impacts of the dam, water obstruction or encroachment on nearby natural areas, wildlife sanctuaries, public water supplies, other geographical or physical features including cultural, archaeological and historical landmarks, National wildlife refuges, National natural landmarks, National, State or local parks or recreation areas or National, State or local historical sites.

(6) Compliance by the dam, water obstruction or encroachment with applicable laws administered by the Department, the Fish Commission and river basin commissions created by interstate compact.

(7) The extent to which a project is water dependent and thereby requires access or proximity to or siting within water to fulfill the basic purposes of the project. The dependency shall be based on the demonstrated unavailability of any alternative location, route or design and the use of location, route or design to avoid or minimize the adverse impact of the dam, water obstruction or encroachment upon the environment and protect the public natural resources of the Commonwealth.

(8) Present conditions and the effects of reasonably foreseeable future development within the affected watershed above and below the dam, water obstruction or encroachment:

(i) A dam, water obstruction or encroachment shall be designed, constructed and operated to assure adequacy and compliance with this chapter, taking into account reasonably foreseeable development within the watershed.

(ii) In assessing the impact of future development upon a dam, water obstruction or encroachment, the Department may require the applicant to submit data regarding estimated development potentials and municipal, county and regional planning related to the affected watershed.

(9) Consistency with State and local floodplain and stormwater management programs, the State Water Plan and the Coastal Zone Management Plan.

(10) Consistency with the designations of wild, scenic and recreational streams under the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§ 1271—1287) or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29), including identified 1-A candidates.

(11) Consistency with State antidegradation requirements contained in Chapters 93, 95 and 102 (relating to water quality standards; wastewater treatment requirements; and erosion and sediment control) and the Clean Water Act (33 U.S.C.A. §§ 1251—1376).

(12) Secondary impacts associated with but not the direct result of the construction or substantial modification of the dam or reservoir, water obstruction or encroachment in the area of the project and in areas adjacent thereto and

future impacts associated with dams, water obstructions or encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose.

(13) For dams, water obstructions or encroachments in, along, across or projecting into a wetland, as defined in § 105.1 (relating to definitions), the Department will also consider the impact on the wetlands values and functions in making a determination of adverse impact.

(14) The cumulative impact of this project and other potential or existing projects. In evaluating the cumulative impact, the Department will consider whether numerous piecemeal changes may result in a major impairment of the wetland resources. The Department will evaluate a particular wetland site for which an application is made with the recognition that it is part of a complete and interrelated wetland area.

(c) In reviewing a permit application under § 105.11(c) (relating to permit requirements) and section 6(c) of the act (32 P. S. § 693.6(c)) for the operation and maintenance of an existing dam, water obstruction or encroachment, the Department will use the following factors:

(1) Potential threats to life, property or safe navigation created by the continuing operation or maintenance of the project.

(2) Adverse impact on stream flow, water quality or the environment which might be reduced or mitigated by reasonable changes in the operation of the project.

(3) Compliance of the operation and maintenance of the project with applicable laws administered by the Department, the Fish Commission and river basin commissions created by interstate compact.

(d) The Department may review a permit application for the operation and maintenance of existing projects without regard to the design criteria and construction requirements in Subchapters B—J. If the Department finds that an existing dam, water obstruction or encroachment is unsafe or adversely affects property or the environment, it may consider application of criteria and requirements reasonably necessary to correct the conditions.

#### **Authority**

The provisions of this § 105.14 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### **Source**

The provisions of this § 105.14 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117649) to (117651).

**Notes of Decisions**

Reservoir was not an “available” alternative supplemental cooling water source within the meaning of 25 Pa. Code § 105.14(b)(7) where there was substantial evidence to support conclusion that such use of the reservoir was technically not feasible, there were legal impediments to such use and it would be unfair to give all unallocated water to one consumptive user. *Del-Aware Unlimited, Inc. v. Department of Environmental Resources*, 508 A.2d 348 (Pa. Cmwlth. 1986); appeal denied 523 A.2d 1132 (Pa. 1986).

**Cross References**

This section cited in 25 Pa. Code § 105.15 (relating to environmental assessment); 25 Pa. Code § 105.18a (relating to permitting of structures and activities in wetlands); 25 Pa. Code § 105.82 (relating to permit applications for operation and maintenance of existing dams and reservoirs); and 25 Pa. Code § 105.442 (relating to authorization for general permits).

**§ 105.15. Environmental assessment.**

(a) A person may not construct, operate, maintain, modify, enlarge or abandon the following categories of structures or activities until an environmental assessment has been approved in writing by the Department. The environmental assessment shall be on a form provided by the Department and shall include the following information:

- (1) For dams, water obstructions or encroachments permitted under this chapter, the Department will base its evaluation on the information required by § 105.13 (relating to permit applications—information and fees) and the factors included in § 105.14(b) (relating to review of applications) and this section.
- (2) For dams, water obstructions or encroachments located in, along or projecting into a wetland for which a permit is not otherwise required under this chapter, the Department will base its evaluation on the information required by § 105.13(d) and the factors included in § 105.14(b) and this section.
- (3) For dams located in, along or projecting into an exceptional value water as defined in Chapter 93 (relating to water quality standards) for which a permit is not otherwise required under this chapter, the Department will base its evaluation on the information required by the factors included in § 95.1 (relating to general requirements) and §§ 105.13(d) and 105.14(b) and the following information submitted by the applicant:
  - (i) The surface area of the impoundment.
  - (ii) The height of the dam.
  - (iii) The mean depth and maximum depth of the stream at the location of the dam.
  - (iv) A description of the release structure.
  - (v) The rate of a conservation release.
  - (vi) The design of bypass structures.
  - (vii) The use of the dam.
  - (viii) The material used for construction of the dam.

(b) For structures or activities where water quality certification is required under section 401 of The Clean Water Act (33 U.S.C.A. § 1341), an applicant requesting water quality certification under section 401 shall prepare and submit to the Department for review, an environmental assessment containing the information required by subsection (a) for every dam, water obstruction or encroachment located in, along, across or projecting into the regulated water of this Commonwealth.

(c) Based on the results of the environmental assessment required under subsection (a), the Department may require the applicant to undertake further studies and submit additional information, analyses and reports as found necessary by the Department.

(d) The environmental assessment has been conducted by the Department for all general permits, categories of structures and activities listed in § 105.12(a)(1)—(10) and (12)—(15) (relating to waiver of permit requirements). The environmental assessment has also been conducted for the structures or activities listed in § 105.12(b) or for which water quality certification has been granted for a Nationwide permit regulating the structure or activity and the environmental assessment requirements have been deemed satisfied.

#### Authority

The provisions of this § 105.15 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.15 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117651) to (117652).

#### Cross References

This section cited in 25 Pa. Code § 96.3 (relating to quality protection requirements); 25 Pa. Code § 105.18a (relating to permitting of structures and activities in wetlands); and 25 Pa. Code § 105.442 (relating to authorization for general permits).

### § 105.16. Environmental, social and economic balancing.

(a) If the Department determines that there may be an impact on natural, scenic, historic or aesthetic values of the environment, the Department will consult with the applicant to examine ways to reduce the adverse environmental impact. If, after consideration of mitigation measures, the Department finds that the adverse environmental impact will occur, the Department will evaluate the public benefits of the project to determine whether the public benefits outweigh the environmental harm.

(b) An application for a permit for a structure or activity which the Department determines will have an adverse impact on the environment or public natural resources will not be approved by the Department unless the applicant demonstrates and the Department finds that the public benefits of the proposed project outweigh the harm to the environment and public natural resources. Public benefits include, but are not limited to:

- (1) Correction and prevention of pollution.
- (2) Protection of public health and safety.
- (3) Reduction of flood damages.
- (4) Development of energy resources.
- (5) Creation or preservation of significant employment.
- (6) Provision of public utility services.
- (7) Other essential social and economic development which benefits a substantial portion of the public.

(c) An application for a permit will not be approved by the Department in the following areas unless the applicant demonstrates and the Department finds that the project will not have an adverse impact upon the public natural resources:

(1) A project located in or within 100 feet of a watercourse or body of water that has been designated as a National or State wild or scenic river in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§ 1271—1287) or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29).

(2) A project located in or within 100 feet of a Federal wilderness area designated in accordance with the Wilderness Act (16 U.S.C.A. §§ 1131—1136) or the Federal Eastern Wilderness Act of 1975 (16 U.S.C.A. § 1132).

(3) A project located within an area which serves as a habitat of a threatened or endangered species protected by the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. §§ 4601-9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531—1543) or for a species which has been designated as a threatened or endangered species under the Wild Resource Conservation Act (32 P. S. §§ 5301—5314), 30 Pa.C.S. (relating to the Fish and Boat Code) or 34 Pa.C.S. (relating to the Game and Wildlife Code).

(4) A project located in waters designated as exceptional value in Chapter 93 (relating to water quality standards).

(d) In reviewing permit applications, it will be the policy of the Department to encourage activities that protect the natural condition of the watercourses or other body of water.

(e) This section does not apply to dams, water obstructions or encroachments located in, along, across or projecting into wetlands. These structures or activities will be evaluated under §§ 105.17 and 105.18a—105.20.

**Authority**

The provisions of this § 105.16 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.16 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117652) to (117654).

**Notes of Decisions**

Because the petitioner failed to utilize available alternatives, the Department was not required to consider the petitioner's proposed mitigation measures. *Hatchard v. Department of Environmental Resources*, 612 A.2d 621 (Pa. Cmwlth. 1992).

**Cross References**

This section cited in 25 Pa. Code § 105.442 (relating to authorization for general permits).

**§ 105.17. Wetlands.**

Wetlands are a valuable public natural resource. This chapter will be construed broadly to protect this valuable resource.

(1) *Exceptional value wetlands.* This category of wetlands deserves special protection. Exceptional value wetlands are wetlands that exhibit one or more of the following characteristics:

(i) Wetlands which serve as habitat for fauna or flora listed as “threatened” or “endangered” under the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. §§ 4601-9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531–1543), the Wild Resource Conservation Act (32 P. S. §§ 5301–5314), 30 Pa.C.S. (relating to the Fish and Boat Code) or 34 Pa.C.S. (relating to the Game and Wildlife Code).

(ii) Wetlands that are hydrologically connected to or located within 1/2-mile of wetlands identified under subparagraph (i) and that maintain the habitat of the threatened or endangered species within the wetland identified under subparagraph (i).

(iii) Wetlands that are located in or along the floodplain of the reach of a wild trout stream or waters listed as exceptional value under Chapter 93 (relating to water quality standards) and the floodplain of streams tributary thereto, or wetlands within the corridor of a watercourse or body of water that has been designated as a National wild or scenic river in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§ 1271–1287) or designated as wild or scenic under the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21–820.29).

(iv) Wetlands located along an existing public or private drinking water supply, including both surface water and groundwater sources, that maintain the quality or quantity of the drinking water supply.

(v) Wetlands located in areas designated by the Department as “natural” or “wild” areas within State forest or park lands, wetlands located in areas designated as Federal wilderness areas under the Wilderness Act (16 U.S.C.A. §§ 1131—1136) or the Federal Eastern Wilderness Act of 1975 (16 U.S.C.A. § 1132) or wetlands located in areas designated as National natural landmarks by the Secretary of the Interior under the Historic Sites Act of 1935 (16 U.S.C.A. §§ 461—467).

(2) *Other wetlands.* This category includes wetlands not categorized as exceptional value wetlands.

(3) *Permits.* The Department will maintain a list of permit decisions involving wetlands. This list will be a matter of public record and will be available for inspection at the Department’s offices.

#### Authority

The provisions of this § 105.17 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.17 adopted November 2, 1979, effective November 3, 1979, 9 Pa.B. 3640; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117654) and (126083).

#### Cross References

This section cited in 7 Pa. Code § 130d.1 (relating to definitions); 7 Pa. Code § 130d.45 (relating to prohibited applications); 25 Pa. Code § 93.1 (relating to definitions); 25 Pa. Code § 96.3 (relating to water quality protection requirements); 25 Pa. Code § 105.13 (relating to permit applications—information and fees); 25 Pa. Code § 105.16 (relating to environmental, social and economic balancing); 25 Pa. Code § 105.442 (relating to authorization for general permits); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code § 250.1 (relating to definitions); 25 Pa. Code § 250.311 (relating to evaluation of ecological receptors); 25 Pa. Code § 271.915 (relating to management practices); 25 Pa. Code § 273.202 (relating to areas where municipal waste landfills are prohibited); 25 Pa. Code § 275.202 (relating to areas where the land application of sewage sludge is prohibited); § 277.202 (relating to areas where construction/demolition waste landfills are prohibited); 25 Pa. Code § 279.202 (relating to areas where transfer facilities are prohibited); 25 Pa. Code § 281.202 (relating to areas where general composting facilities are prohibited); and 25 Pa. Code § 283.202 (relating to areas where resource recovery facilities and other processing facilities are prohibited).

**§ 105.18. [Reserved].****Source**

The provisions of this § 105.18 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; reserved February 18, 1983, February 19, 1983, 13 Pa.B. 781. Immediately preceding text appears at serial pages (59026) to (59027).

**§ 105.18a. Permitting of structures and activities in wetlands.**

(a) *Exceptional value wetlands.* Except as provided for in subsection (c), the Department will not grant a permit under this chapter for a dam, water obstruction or encroachment located in, along, across or projecting into an exceptional value wetland, or otherwise affecting an exceptional value wetland, unless the applicant affirmatively demonstrates in writing and the Department issues a written finding that the following requirements are met:

(1) The dam, water obstruction or encroachment will not have an adverse impact on the wetland, as determined in accordance with §§ 105.14(b) and 105.15 (relating to review of applications; and environmental assessment).

(2) The project is water-dependent. A project is water-dependent when the project requires access or proximity to or siting within the wetland to fulfill the basic purposes of the project.

(3) There is no practicable alternative to the proposed project that would not involve a wetland or that would have less effect on the wetland, and not have other significant adverse effects on the environment. An alternative is practicable if it is available and capable of being carried out after taking into consideration construction cost, existing technology and logistics. An area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed to fulfill the basic purpose of the project shall be considered as a practicable alternative.

(4) The project will not cause or contribute to a violation of an applicable State water quality standard.

(5) The project will not cause or contribute to pollution of groundwater or surface water resources or diminution of resources sufficient to interfere with their uses.

(6) The cumulative effect of this project and other projects will not result in the impairment of the Commonwealth's exceptional value wetland resources.

(7) The applicant shall replace affected wetlands in accordance with § 105.20a (relating to wetland replacement criteria).

(b) *Other wetlands.* Except as provided for in subsection (c), the Department will not grant a permit under this chapter for a dam, water obstruction or encroachment in, along, across or projecting into the wetland which is not an exceptional value wetland, or otherwise affecting the wetland, unless the appli-

cant affirmatively demonstrates in writing and the Department issues a written finding that the following requirements are met:

(1) The project will not have a significant adverse impact on the wetland, as determined in accordance with §§ 105.14(b) and 105.15. The determination of whether an adverse impact is significant includes an evaluation of the following factors:

- (i) The areal extent of the wetland impacts.
- (ii) The wetland's values and functions.
- (iii) Whether the affected wetlands values and functions are unique to the area or region.
- (iv) Comments from other State and Federal environmental agencies concerning the scope and effect of the impact.

(2) Adverse environmental impacts on the wetland will be avoided or reduced to the maximum extent possible.

(3) There is no practicable alternative to the proposed project that would not involve a wetland or that would have less adverse impact on the wetland, and that would not have other significant adverse impacts on the environment. An alternative is practicable if it is available and capable of being carried out after taking into consideration construction cost, existing technology and logistics. An area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed to fulfill the basic purpose of the proposed project shall be considered as a practical alternative.

(i) It shall be a rebuttable presumption that there is a practicable alternative, not involving a wetland, to a nonwater-dependent project, and that the alternative would have less adverse impact on the wetland.

(ii) To rebut the presumption, an applicant for a permit under this chapter shall demonstrate with reliable and convincing evidence and documentation and the Department will issue a written finding that the following statements are true:

(A) The basic project purpose cannot be accomplished utilizing one or more other sites that would avoid, or result in less, adverse impact on the wetland.

(B) A reduction in the size, scope, configuration or density of the project as proposed and alternative designs to that of the project as proposed that would avoid, or result in fewer or less severe, adverse impacts on a wetland will not accomplish the basic purpose of the project.

(4) The project will not cause or contribute to a violation of an applicable State water quality standard.

(5) The project will not cause or contribute to pollution of groundwater or surface water resources or diminution of the resources sufficient to interfere with their uses.

(6) The cumulative effect of this project and other projects will not result in a major impairment of this Commonwealth's wetland resources.

(7) The applicant will replace the affected wetlands to compensate for unavoidable impacts, in accordance with § 105.20a.

(c) The Department will not grant a permit under this chapter for a dam, water obstruction or encroachment which has a significant adverse impact on a wetland unless the applicant affirmatively demonstrates and the Department finds in writing that a project is necessary to abate a substantial threat to the public health or safety and that the requirements of subsection (b)(2)—(7) are met.

#### Source

The provisions of this § 105.18a adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

#### Cross References

This section cited in 25 Pa. Code § 96.3 (relating to water quality protection requirements); and 25 Pa. Code § 105.16 (relating to environmental, social and economic balancing).

### § 105.19. Complete applications.

(a) An application for a permit is not complete until the necessary information and requirements under the act and this chapter, including proof of financial responsibility, have been satisfied by the applicant.

(b) When the Department determines that an application is incomplete or contains insufficient information to determine compliance with this chapter, it will notify the applicant in writing. The applicant shall then have 60 days to complete the application or the Department will consider the application to be withdrawn by the applicant. Requests for a specific extension may be sought by the applicant in writing. The applicant will be notified in writing when an application is considered withdrawn. When an application is considered withdrawn, the Department will close the application file and take no further action to review the file, unless the applicant requests the file to be reopened after submitting the previously identified information to complete the application and a new fee. Fees will not be refunded after an application is withdrawn.

#### Authority

The provisions of this § 105.19 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.19 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (126083) to (126084).

**Cross References**

This section cited in 25 Pa. Code § 105.16 (relating to environmental, social and economic balancing).

**§ 105.20. Proof of financial responsibility.**

(a) Prior to the approval of a permit under this chapter for construction or modification of a dam, water obstruction or encroachment which may present a substantial potential risk to life or property, the Department will require proof of financial responsibility or security for continued operation and maintenance during the lifetime of the facility. Dams, water obstructions or encroachments which may be subject to the proof of financial responsibility include, but are not limited to, Category 1 dams, Hazard Potential Classification, as defined in § 105.91 (relating to classification of dams and reservoirs) stream enclosures, bridges, levees, fills and floodwalls.

(b) As proof of responsibility or security, the Department may require one or more of the following:

(1) A certificate of public convenience from the Pennsylvania Public Utility Commission if the owner of the proposed facility is subject to regulation under 66 Pa.C.S. (relating to the Public Utility Code).

(2) Ownership or management of the facility by an agency of the Federal, State, county or municipal government or of an interstate compact.

(3) A bond or other legal device of a form acceptable to the Department, payable to the Commonwealth, which guarantees proper construction, repair, operation and maintenance, inspection and monitoring, and removal if necessary of the facility. The amount of bond or legal device shall be sufficient to cover the costs of entry, repair, correction, operation, maintenance, inspection, monitoring or removal of the facility by the Commonwealth in the event of failure of the owner to comply with orders of the Department, terms and conditions of the permit, this chapter and the act and section 302 of the Flood Plain Management Act (32 P. S. § 679.302).

**Authority**

The provisions of this § 105.20 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.20 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (126083) to (126084).

**Cross References**

This section cited in 25 Pa. Code § 105.16 (relating to environmental, social and economic balancing); 25 Pa. Code § 105.21 (relating to criteria for permit issuance and denial); 25 Pa. Code § 105.25 (relating to transfer of permits); and 25 Pa. Code § 105.442 (relating to authorization for general permits).

**§ 105.20a. Wetland replacement criteria.**

(a) Wetlands replacement shall meet the following general criteria:

(1) *Area ratio.* The wetland shall be replaced at a minimum area ratio of replacement acres to affected acres of 1:1. The Department may require the area ratio to exceed 1:1 based on a determination of the area affected and the functions and values which will be destroyed or adversely affected by the project. For structures or activities constructed without a permit, and for which mitigation, as defined in § 105.1 (relating to definitions), cannot be achieved, the wetland shall be replaced at a minimum area ratio of 2:1 (replacement acres: affected acres). The Department may require the area ratio to exceed 2:1 based on a determination of the area affected and the functions and values which were destroyed or adversely affected by the project.

(2) *Function and value replacement.* Functions and values that are physically and biologically the same as those that are lost shall be replaced at a minimum ratio of 1:1. The Department may require the functions and values ratio to exceed 1:1 based on the area affected and on the functions and values which will be destroyed as adversely affected by the project and the replacement ratio. For structures or activities constructed without a permit, and for which mitigation, as defined in § 105.1, cannot be achieved, the wetland shall be replaced at a minimum area ratio of 2:1. The Department may require the area ratio to exceed 2:1 based on a determination of the area affected and the functions and values which were destroyed or adversely affected by the project.

(3) *Siting criteria.* Replacement shall be located adjacent to the impacted wetland unless an alternative replacement site is approved by the Department. Alternative replacement sites will generally not be approved unless the replacement site is located within the same watershed as the wetland being replaced or within the designated boundaries of the coastal zone management area where the loss occurs.

(b) In addition to the general criteria in subsection (a), the Department will use its guidelines entitled “*Design Criteria for Wetlands Replacement*” in making decisions under this section. These guidelines provide for design, flexibility and utilization of best available technology in environmental engineering. These guidelines are available from the Division of Rivers and Wetlands Conservation, Post Office Box 8761, Harrisburg, Pennsylvania 17105-8761.

**Authority**

The provisions of this § 105.20a issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.20a adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**Cross References**

This section cited in 25 Pa. Code § 96.3 (relating to water quality protection requirements); 25 Pa. Code § 105.18a (relating to permitting of structures and activities in wetlands); and 25 Pa. Code § 105.21 (relating to criteria for permit issuance and denial).

**PERMIT ISSUANCE, TRANSFER AND REVOCATION****§ 105.21. Criteria for permit issuance and denial.**

(a) In addition to the other requirements of this chapter, a permit application will not be approved unless the applicant demonstrates that the following conditions are met:

(1) The application is complete and accurate.

(2) The proposed project or action complies with the standards and criteria of this title and with other laws administered by the Department, the Fish Commission and river basin commissions created by interstate compact.

(3) The proposed project or action will adequately protect public health, safety and the environment.

(4) The proposed project or action is consistent with the environmental rights and values secured by Pa. Const. Art. I, § 27 and with the duties of the Commonwealth as trustee to conserve and maintain public natural resources of this Commonwealth.

(5) The applicant has not been found to be in continuing violation of this title or other laws administered by the Department, the Fish Commission or a river basin commission, including, but not limited to, a violation of an adjudication and order, agreement, consent order or decree, whether or not the applicant's violation resulted in an order or civil penalty assessment.

(6) The applicant has submitted adequate proof of financial responsibility, if required under § 105.20 (relating to proof of financial responsibility).

(b) A permit issued under this chapter shall be subject to the general and special conditions regarding construction, operation, maintenance, inspection and monitoring of a project or action that the Department may deem necessary to assure compliance with the requirements and purposes of this chapter, the act, the Flood Plain Management Act (32 P. S. §§ 679.101–679.601) and other laws

administered by the Department, the Fish Commission and river basin commissions created by interstate compact.

(c) The Department may not issue a permit to operate and maintain a dam, water obstruction or encroachment constructed without a permit unless one of the following is met:

(1) The Department determines that the structure or activity complies with the standards and criteria of this title, including replacement in accordance with § 105.20a (relating to wetland replacement criteria), and with other laws administered by the Department, the Fish Commission and river basin commissions created by interstate compact.

(2) The Department determines that the structure or activity does not comply with the standards and criteria of this title and with other laws administered by the Department, the Fish Commission and river basin commissions created by interstate compact, that the effect on wetlands will be mitigated, and at least one of the following is met:

(i) Restoration would cause destruction of a dwelling occupied by a person who had no role in the planning or construction of the project.

(ii) Restoration may result in more long term damage than would be caused by allowing the project to remain in place.

(iii) Restoration would be unsuccessful due to material changes in the condition of the site and its surrounding area.

(iv) There are extraordinary circumstances which preclude restoration.

(d) The reason for denial of a permit application and appeal procedures shall be communicated in writing to the applicant.

(e) In an appeal from a Department action concerning a permit application to operate and maintain a dam, water obstruction or encroachment, the applicant has the burden of proving that there is no reasonable basis for the Department's action.

#### Authority

The provisions of this § 105.21 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.21 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended November 2, 1979, effective November 3, 1979, 9 Pa.B. 3640; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117657).

**Notes of Decisions**

The terms and conditions attached to a dredging permit are terms and conditions of the permit, as authorized under this section rather than rules and regulations. *Warren Sand and Gravel Co. v. Department of Environmental Resources*, 341 A.2d 556 (Pa. Cmwlth. 1975).

**Cross References**

This section cited in 25 Pa. Code § 105.442 (relating to authorization for general permits).

**§ 105.21a. Public notice.**

Except for dams, water obstructions and encroachments authorized under §§ 105.12, 105.64 and Subchapter L (relating to waiver of permit requirements; emergency permit; and general permits), or as small projects, the Department will publish a notice in the *Pennsylvania Bulletin* upon receipt of an application and again upon the issuance or denial of a permit by the Department.

**Authority**

The provisions of this § 105.21a issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.21a adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**§ 105.22. [Reserved].****Source**

The provisions of this § 105.22 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 12, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; reserved October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117657) to (117658).

**§ 105.23. Compliance with other applicable statutes.**

Receipt of a permit under the provisions of this chapter shall not relieve the permittee of the obligation of complying with Federal, interstate compact and State laws, regulations and standards applicable to the construction, operation or maintenance of the dam or water obstruction.

**Source**

The provisions of this § 105.23 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47982).

**§ 105.24. Coordination of permits.**

(a) The Department will establish a system to coordinate the application for and issuance of permits under this chapter with permit processes conducted under other statutes and regulations administered by the Department and with permit processes administered by other Federal and State agencies.

(b) When possible, the Department will develop joint permit application forms to facilitate the submission of information on related activities of a project regulated under statutes and regulations administered by the Department and other Federal and State agencies, to reduce duplicate and repetitious application requirements. The joint application forms shall be used in lieu of individual applications for the required permits, except for small projects.

**Authority**

The provisions of this § 105.24 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Notes of Decisions**

The EHB did err in determining that DER did not abuse its discretion by soliciting comments from the Fish and Boating Commission and other agencies when reviewing the petitioner's permit. *Hatchard v. Department of Environmental Resources*, 612 A.2d 621 (Pa. Cmwlth. 1992).

**Source**

The provisions of this § 105.24 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended October 6, 1978, effective October 7, 1978, 8 Pa.B. 2723; amended November 2, 1979, effective November 3, 1979, 9 Pa.B. 3640; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117658).

**§ 105.25. Transfer of permits.**

(a) A permit may be transferred to a new owner if there is a change of ownership of the dam, water obstruction or encroachment.

(b) A permit may be transferred only upon application to and approval by the Department. An application for transfer shall be submitted upon forms provided by the Department.

(c) A permit may not be transferred if a violation of this chapter exists at the time of application for transfer unless the transfer will expedite correction of the violation.

(d) The new owner shall expressly agree to abide by the permit conditions and shall, if applicable:

(1) Provide the Department with proof of financial responsibility and security in accordance with § 105.20 (relating to proof of financial responsibility).

(2) Obtain a license, easement, right-of-way or other interest in the submerged lands of this Commonwealth in accordance with §§ 105.31—105.35 (relating to submerged lands of the Commonwealth—licenses and annual charges).

(e) The original permittee will not be relieved of an obligation to comply with this chapter, the terms and conditions of the permit or an order issued by the Department until the transfer has been approved.

(f) Upon receipt of the approved application for transfer, the applicant shall affix the approved application for transfer to the original permit. The approved application for transfer shall become part of, and remain affixed to, the original permit, until the Department issues a new permit.

#### Authority

The provisions of this § 105.25 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.25 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117658) to (117659).

### § 105.26. Revocation and suspension of permits.

(a) Failure to comply with a provision of this chapter, an order of the Department, or a term or condition of a permit issued under this chapter will be cause for the Department to revoke or suspend a permit.

(b) The Department will issue to the permittee a written notice of the suspension or revocation of a permit. The notice shall be subject to the procedure for appeal and hearing before the Environmental Hearing Board as provided by section 24 of the act (32 P. S. § 693.24); section 1921-A of The Administrative Code of 1929 (71 P. S. § 510-21), and 2 Pa.C.S. §§ 501—508 and 701—704 (relating to the Administrative Agency Law).

#### Source

The provisions of this § 105.26 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38854).

### § 105.27. [Reserved].

#### Source

The provisions of this § 105.27 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38854).

**§ 105.28. [Reserved].****Source**

The provisions of this § 105.28 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38854) to (38855).

**§ 105.29. [Reserved].****Source**

The provisions of this § 105.29 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38855).

**§ 105.29a. Burden of proof.**

In a civil or administrative action taken by the Department under this chapter, the person against whom the action has been taken has the burden of proof to demonstrate that the project complies with the act and this chapter.

**Authority**

The provisions of this § 105.29a issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.29a adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**§ 105.30. [Reserved].****Source**

The provisions of this § 105.30 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38855).

**SUBMERGED LANDS OF THE COMMONWEALTH—LICENSES  
AND ANNUAL CHARGES****§ 105.31. Property rights.**

(a) Except as provided in §§ 105.32 and 105.33 (relating to projects—proper purpose; and licenses for public service corporations), no permit issued under this chapter may give real or personal property rights nor grant exclusive privileges; nor may it be construed to grant or confer a right, title, easement or interest in, to or over lands belonging to this Commonwealth.

(b) No permit for a dam, water obstruction or encroachment to occupy submerged lands of the Commonwealth will be issued by the Department until the applicant has first obtained one of the following:

- (1) An easement, right-of-way, license or lease from the Department under section 15 of the act (32 P. S. § 693.15) and § 105.32.
- (2) A license under section 514 of The Administrative Code of 1929 (71 P. S. § 194) and § 105.33.
- (3) A license, easement, right-of-way or other interest in the submerged lands of this Commonwealth granted under specific statutory authority from the General Assembly.
- (c) For purposes of this section, to occupy submerged lands of this Commonwealth includes:
  - (1) The placement of a physical structure on, under or over submerged lands of this Commonwealth.
  - (2) The use or control of the space overlying submerged lands of this Commonwealth, associated with use of a structure with the regularity and in a manner that substantially restrict or prevent navigation, fishing, recreation or other public trust uses by the general public on or over the lands.

#### Source

The provisions of this § 105.31 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38855).

#### Cross References

The provisions of this § 105.25 (relating to transfer of permits).

### § 105.32. Projects—proper purpose.

- (a) If the applicant does not have an estate or interest in the submerged lands of this Commonwealth under other specific authority from the General Assembly at the time of application for a permit under the act, the Department may, with the approval of the Governor, grant an easement, right-of-way, license or lease to occupy submerged lands of this Commonwealth in a navigable lake or river or stream declared a public highway for a dam, water obstruction or encroachment regulated under this chapter which is constructed for the purpose of:
  - (1) Improving navigation or public transportation.
  - (2) Recreation, fishing or other public trust purposes.
  - (3) Protecting public safety or the environment.
  - (4) Providing water supply, energy production or waste treatment.
  - (5) Providing a public utility service by a government agency or subdivision, public utility or electric cooperative.
  - (6) Other activities which require access to water.
- (b) The total area of land which any such project may occupy under one or more easements, rights-of-way, licenses or leases granted by the Department under this section may not exceed 25 acres.

**Source**

The provisions of this § 105.32 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38855) to (38856).

**Cross References**

This section cited in 25 Pa. Code § 105.25 (relating to transfer of permits); 25 Pa. Code § 105.31 (relating to property rights); and 25 Pa. Code § 105.35 (relating to charges for use and occupation of submerged lands of this Commonwealth).

**§ 105.33. Licenses for public service corporations.**

In accordance with section 514 of The Administrative Code of 1929 (71 P. S. § 194), a permit issued to a public service corporation to place a public service line upon, in or over submerged land of this Commonwealth will incorporate a license for the privilege of crossing Commonwealth lands.

**Source**

The provisions of this § 105.33 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (4577) to (4578).

**Cross References**

This section cited in 25 Pa. Code § 105.25 (relating to transfer of permits); and 25 Pa. Code § 105.31 (relating to property rights).

**§ 105.34. Navigation and public trust.**

No easement, right-of-way, lease or license will be granted by the Department if it may adversely affect navigation or significantly impair the right in lands of the public held in trust by this Commonwealth.

**Source**

The provisions of this § 105.34 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4578).

**Cross References**

This section cited in 25 Pa. Code § 105.25 (relating to transfer of permits).

**§ 105.35. Charges for use and occupation of submerged lands of this Commonwealth.**

(a) Except as provided in subsections (b) and (c), the following charges apply to the granting of an easement, right-of-way, license or lease to occupy submerged lands of this Commonwealth issued under section 15 of the act (32 P. S. § 693.15) and § 105.32 (relating to projects—proper purpose):

(1) For commercial utility and other dams, water obstructions and encroachments except as listed in subsection (c), annual license charges:

- (i) For areas occupied by facilities, \$50 per tenth of an acre.
- (ii) For barge fleeting and mooring areas, \$10 per tenth of an acre.
- (iii) Minimum annual charge, \$250.

(2) For private recreation docks, owned and used solely by the owners of adjacent riparian property, unless the project is otherwise authorized by a general permit issued under section 7 of the act (32 P. S. § 693.7), an annual charge of \$250.

(b) Licenses for public service lines crossing or occupying submerged lands of this Commonwealth, issued under section 15 of the act or section 514 of The Administrative Code of 1929 (71 P. S. § 194) are subject to the following schedule of annual charges:

<i>Length of Crossings (in feet)</i>	<i>Charges (in dollars)</i>
Less than 500	\$250
500 to 999	500
1000 to 1499	1000
1500 to 1999	1500
2000 to 2499	2000
2500 to 2999	2500
3000 to 3499	3000
3500 to 3999	3500
4000 to 4499	4000
4500 to 4999	4500
5000 and over	5000

(c) Charges may not be imposed under section 15 of the act or section 514 of The Administrative Code of 1929 for the following categories of activities and structures:

- (1) An activity or structure constructed, owned or operated by a department, commission or agency of the Commonwealth or the Federal government.
- (2) A project or activity constructed, or operated primarily for the benefit of a State building or a State institution.
- (3) A flood control project constructed, owned or operated by an agency of the Commonwealth, the Federal government or a municipality.
- (4) A project or activity constructed, owned or operated by a political subdivision of the Commonwealth which provides potable water supply, sewage disposal or other similar services necessary for public health and welfare, or in connection with a service for which no fees or charges other than general taxes are imposed.

- (5) A facility to provide access to the general public to water for recreational boating, fishing, hunting, swimming or other recreation where the access is provided without charge or on a nonprofit basis.
- (6) A structure or facility constructed and operated exclusively to improve fish habitat, under a cooperative agreement with the Fish Commission.
- (7) A private recreational dock constructed under a general permit.
- (d) The annual charges imposed in subsections (a) and (b) may be revised by the EQB after approval by the Governor and reasonable notice to the holder of a license issued under this section.
- (e) This section does not apply to a crossing contiguous to or in a State park or State forest lands. Easements for the crossings shall be administered in accordance with section 514 of The Administrative Code of 1929 and the park and forest land management practices of the Department.
- (f) The removal of sand, gravel and other valuable minerals from submerged lands of this Commonwealth are subject to the royalty and agreement provisions established under section 1908-A of The Administrative Code of 1929 (71 P. S. § 510-8).

#### Authority

The provisions of this § 105.35 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.35 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117662) to (117664).

#### Cross References

This section cited in 25 Pa. Code § 105.25 (relating to transfer of permits).

### § 105.36. [Reserved].

#### Source

The provisions of this § 105.36 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4579).

**§ 105.37. [Reserved].****Source**

The provisions of this § 105.37 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4579).

**§ 105.38. [Reserved].****Source**

The provisions of this § 105.38 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial pages (4579) to (4580).

**§ 105.39. [Reserved].****Source**

The provisions of this § 105.39 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4580).

**§ 105.40. [Reserved].****Source**

The provisions of this § 105.40 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4580).

**CONSTRUCTION REQUIREMENTS AND PROCEDURES****§ 105.41. Notices and reports.**

(a) The permittee shall notify the Department, in writing, of the proposed time for commencement of work at least 15 days prior to the commencement of construction.

(b) The Department may require submission of the reports as it deems necessary on the status of construction.

**Authority**

The provisions of this § 105.41 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.41 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117665).

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.42. Acknowledgment of conditions.**

(a) Upon receipt of a permit, the permittee shall sign the permit thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of the permit. The permittee shall return a signed copy of the permit to the Department. The permit will not be effective until the signed copy of the permit is received by the Department.

(b) The permittee shall fully inform the engineer or contractor responsible for the supervision and conduct of work covered by a permit issued under this chapter of the terms, conditions, restrictions and covenants of the permit.

(c) Prior to the commencement of construction, the permittee shall file with the Department in writing, on a form provided by the Department, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in the permit. Unless the acknowledgment and acceptance have been filed, the permit is void.

(d) A copy of the permit and the acknowledgment shall be available at the work site for inspection upon request by an officer or agent of the Department or another Federal, State, county or municipal agency.

**Authority**

The provisions of this § 105.42 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.42 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117665) to (117666).

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.43. Time limits.**

(a) The Department will set time limits for the commencement and completion of work under a permit issued under this chapter that it deems reasonable and appropriate to carry out the purposes of this chapter.

(b) If the work is not completed on or before the dates set by the Department, unless extended by the Department in writing, the permit shall become void without further notification being required.

**Source**

The provisions of this § 105.43 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended effective September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4581).

**§ 105.44. Implementation of work according to specifications.**

(a) Work undertaken under a permit issued under this chapter shall be conducted in accordance with the maps, plans, profiles and specifications as approved by the Department.

(b) No changes in the maps, plans, profiles and specifications for work covered by a permit which would affect the waterway area or structural stability of the project may be made except with the written approval of the Department. Upon written approval by the Department, the changes shall become part of the permit.

(c) The Department will have the right during the progress of work to require changes or modifications in the maps, plans, profiles and specifications for work covered under a permit it may determine are necessary and proper to protect public health, public safety and the environment.

**Source**

The provisions of this § 105.44 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.45. Inspections.**

Work, structures and land covered under a permit issued under this chapter shall at all times be subject to inspection by representatives of the Department, and the permittee shall allow representatives of the Department to enter a property, premises or place associated with the permit for the purposes of the inspection.

**Source**

The provisions of this § 105.45 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.46. Implementation of erosion and sedimentation control plans.**

(a) During the construction of a dam, water obstruction or encroachment, the permittee shall follow the erosion and sedimentation control plan prepared in accordance with Chapter 102 (relating to erosion and sediment control) and submitted with and approved as part of his application.

(b) Construction shall be done in a manner so as to minimize erosion of banks and bed of the stream and disturbance of the regimen of the stream.

**Source**

The provisions of this § 105.46 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.46a. Collection and disposal of waste materials.**

Waste materials, scrap or excess construction materials shall be collected, stored and disposed of in accordance with the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.101—4000.1904), The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and related rules and regulations.

**Authority**

The provisions of this § 105.46a issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.46a adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**§ 105.47. Removal of structures.**

(a) If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by the Department or if a permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that the Department may prescribe, remove all or any portion of the work as the Department requires and restore the water course and floodplain to their former condition.

(b) Prior to discontinuing use or abandonment, the owner of a structure covered by this chapter, regardless of whether or not it was constructed under a permit from this Department or its predecessors, shall remove all or part of the facility and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by the Department.

**Source**

The provisions of this § 105.47 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**OPERATION, MAINTENANCE AND INSPECTION**

**§ 105.51. Operation and maintenance.**

The permittee or owner of a dam, water obstruction or encroachment shall operate and maintain the facility and appurtenant structures in a safe condition in accordance with permit terms and conditions and the provisions of this chapter so that the facility cannot imperil life, health, safety or property located above or below the facility.

**Source**

The provisions of this § 105.51 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38858).

**Cross References**

This section cited in 25 Pa. Code § 105.131 (relating to operation and monitoring plans).

**§ 105.52. Inspection.**

Regardless of the date of construction of a dam, water obstruction or encroachment or whether or not it was permitted by the Department or its predecessors, it shall be the duty of the permittee or owner of a dam, water obstruction or encroachment to evaluate the safety of the facility and appurtenant structures and to modify the facility in accordance with the permit requirements of § 105.11 (relating to permit requirements) to ensure protection of life and property in accordance with changed conditions and current safety criteria.

**Source**

The provisions of this § 105.52 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Cross References**

This section cited in 25 Pa. Code § 105.131 (relating to operation and monitoring plans).

**§ 105.53. Inspections by owners and inspection reports.**

The permittee or owner of a dam, water obstruction or encroachment shall inspect the facility and appurtenant works according to the following schedule:

(1) Dams, reservoirs and their appurtenant works shall be inspected at least once every 3 months.

(2) For Category 1 dams and Category 2 dams as classified in § 105.91 (relating to classification of dams and reservoirs), which are defined as high hazard dams in § 105.1 (relating to definitions), annual reports regarding the condition of the dam, certified by a registered professional engineer, shall be submitted to the Department on or before December 31 of each year. More frequent reports of dam conditions may be required by the Department if in its discretion conditions indicate the reports are necessary to assure adequate protection of health, safety and property.

(3) For local flood protection projects, annual reports regarding the condition of the flood protection facility shall be submitted to the Department on or before December 31 of each year.

(4) The owner of a water obstruction or encroachment shall conduct periodic inspections to ensure the safe operation, monitoring and maintenance of the facility in accordance with this title, terms and conditions of the permit and approved operating or monitoring plans.

(5) The owner shall retain records of the inspections, including records of actions taken to correct conditions found in the inspections. Copies of the records shall be provided to the Department on request.

(6) The Department may, through terms and conditions of the permit or by request at any time, require the owner to submit certified reports regarding the condition of the facility to the Department.

(7) In lieu of inspections conducted by the owner and certified reports submitted by the owner, the Department may accept reports of equivalent inspections conducted and prepared by governmental agencies. In addition, the Department may accept equivalent inspection reports certified by the owner and submitted to other governmental agencies.

**Authority**

The provisions of this § 105.53 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.53 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117668) to (117669).

**Cross References**

This section cited in 25 Pa. Code § 105.131 (relating to operation and monitoring plans); 25 Pa. Code § 105.132 (relating to inspection); 25 Pa. Code § 105.281 (relating to maintenance and repair of levees or floodwalls); and 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.54. Monitoring systems.**

The permittee or owner of a dam, water obstruction or encroachment shall set up and implement monitoring systems that are required by the Department in the terms and conditions of the permit.

**Source**

The provisions of this § 105.54 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Cross References**

This section cited in 25 Pa. Code § 105.131 (relating to operation and monitoring plans).

**INVESTIGATION AND CORRECTION OF UNSAFE  
CONDITIONS—EMERGENCY PROCEDURES****§ 105.61. Procedures for investigations.**

The Department may, if it finds there is reasonable cause to suspect the existence of conditions adversely affecting the safety of a dam, water obstruction or encroachment, order the owner to conduct investigations, studies, tests and analyses that may be required to properly evaluate the safety of the structure. The investigations, studies, tests and analyses shall be accomplished under the supervision of a registered professional engineer, experienced in the design, construction, operation and maintenance of the facilities and approved by the Department, and shall be accomplished in accordance with methods the Department may prescribe. Failure to provide the investigation results to the Department on request will constitute adequate grounds for revocation or suspension of a permit.

**Source**

The provisions of this § 105.61 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38858) to (38860) and (47990).

**§ 105.62. Correction of unsafe conditions.**

(a) If the Department determines that a dam, water obstruction or encroachment is unsafe or adversely affects property or the environment or has not been properly constructed, operated, monitored or maintained in compliance with legal requirements, it may require the owner of the facility to repair, alter, maintain or

remove the facility or take other actions necessary to carry out the purposes of this chapter within the time prescribed by the Department.

(b) The Department or its authorized agents may enter and conduct investigations, tests and analyses and take corrective action required to carry out the purposes of this chapter if one or more of the following conditions exist:

(1) The owner cannot be ascertained or found.

(2) The owner refuses or fails to comply with an order issued by the Department under section 14 of the act (32 P. S. § 693.14) or this section.

(3) The condition of the facility is so dangerous as to require immediate remedial action.

(c) The Department may recover from the owner, in the name of the Commonwealth, the expenses incurred in taking the action described in subsection (b) in the same manner as debts are recoverable by law.

#### Source

The provisions of this § 105.62 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; added September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4584).

### § 105.63. Emergency procedures.

(a) The permittee or owner of a dam, water obstruction or encroachment shall immediately notify the Department and responsible authorities in adjacent and downstream communities, including emergency management authorities, of a condition which may threaten the safety of the facility and take necessary actions to protect life and property, including action required under an emergency plan or Department order issued under the act.

(b) The permittee or owner of a dam or reservoir shall immediately notify the Department and responsible emergency management authorities in adjacent and downstream communities of conditions which may indicate a potential dam hazard emergency including, but not limited to, one or more of the following conditions:

(1) Sliding of upstream or downstream slopes or abutments contiguous to the dam.

(2) Sudden subsidence of the crest of the dam.

(3) Longitudinal or transverse cracking of the crest of the dam.

(4) Unusual release of water from the downstream face or toe of the dam.

(5) Other unusual conditions at the downstream slope of the dam.

(6) Significant landslides in the reservoir area.

(c) In case of emergency, telephone calls should be directed to the Pennsylvania Emergency Management Agency at (717) 783-8150 or the Department's emergency number at (717) 787-4343.

**Authority**

The provisions of this § 105.63 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.63 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117671) to (117672).

**Cross References**

This section cited in 25 Pa. Code § 105.135 (relating to dam hazard emergencies).

**§ 105.64. Emergency permit.**

The Department may issue emergency permits if it finds that immediate remedial action is necessary to alleviate an imminent threat to life, property or the environment.

- (1) The emergency permit will be provided in writing, on a form developed for this purpose.
- (2) The emergency permit will contain conditions as the Department determines appropriate.
- (3) The Department may institute proceedings, legal or administrative, that it deems appropriate for violations of the emergency permit or conditions of the emergency permit.
- (4) If the municipality in which the emergency occurs has waived notice, the emergency permit is effective immediately. If notice has not been waived by the municipality, the emergency permit is effective 30 days after notice is sent to the municipality in which the emergency occurred. The emergency permit will expire in 30 days unless extended in writing by the Department.

*(Editor's Note: The act of August 14, 1991 (P. L. \_\_\_\_, No. 35) supersedes the first two sentences of § 105.64(4).)*

**Authority**

The provisions of this § 105.64 issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.64 adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**Cross References**

This section cited in 25 Pa. Code § 105.21a (relating to public notice).

**Subchapter B. DAMS AND RESERVOIRS****GENERAL PROVISIONS**

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105.75.	[Reserved].
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**PERMITS**

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**OPERATION, MAINTENANCE AND EMERGENCIES**

- 105.131. Operation and monitoring plans.
- 105.132. Inspection.
- 105.133. Directed repairs.
- 105.134. Emergency warning system and operation plan.
- 105.135. Dam hazard emergencies.
- 105.136. Unsafe dams.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**GENERAL PROVISIONS****§ 105.71. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter governs the construction, alteration, enlargement, repair, maintenance, operation and removal of a dam or reservoir regulated under the act.

**Source**

The provisions of this § 105.71 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended November 29, 1974, effective December 16, 1974, 4 Pa.B. 2452; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47990) to (47991).

**§ 105.72. [Reserved].****Source**

The provisions of this § 105.72 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47991).

**§ 105.73. [Reserved].****Source**

The provisions of this § 105.73 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended November 29, 1974, effective December 16, 1974, 4 Pa.B. 2452 amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47991).

**§ 105.74. [Reserved].****Source**

The provisions of this § 105.74 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47992).

**§ 105.75. [Reserved].****Source**

The provisions of this § 105.75 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47992).

**§ 105.76. [Reserved].****Source**

The provisions of this § 105.76 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47992).

**§ 105.77. [Reserved].****Source**

The provisions of this § 105.77 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47992) to (47993).

**§ 105.78. [Reserved].****Source**

The provisions of this § 105.78 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47993) to (47994).

**§ 105.79. [Reserved]****Source**

The provisions of this § 105.79 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47994).

**PERMITS****§ 105.81. Permit applications for construction and modification of dams and reservoirs.**

(a) In addition to the information required by § 105.13 (relating to permit applications—information and fees), permit applications under this subchapter for the construction or modification of dams and reservoirs shall give the following information:

- (1) The name and address of the applicant.
- (2) The location, type, size, height and purpose of the proposed dam and reservoir and appurtenant works.
- (3) For projects involving storage of fluids or semifluids other than water, information concerning the chemical content, viscosity and other pertinent physical characteristics of the fluid or semifluid impounded.
- (4) The storage capacity and reservoir surface areas for normal pool and maximum high water.
- (5) Plans for purposed permanent monitoring of performance by instrument installations in the dam, including the purposes of the instrumentation. If no instrumentation is considered necessary, reasons for this judgment may be stated.
- (6) As accurately as may be readily obtained, the area of the drainage basin, pertinent rainfall and streamflow records, and flood flow records and estimates.
- (7) The proposed time for commencement and anticipated completion of construction.
- (8) The method and schedule of operation of the dam including an emergency warning system and operation plan if required under § 105.134 (relating to emergency action plan).
- (9) Plans for control of erosion and water pollution during the anticipated construction operations including plans for adequate measures to limit the erosion of the soil from exposed slopes after completion of construction. The plans shall indicate that adequate control measures will be taken during construction to protect the quality of stream flow below the project site. The application shall include a copy of a letter from the conservation district in the county where the project is located indicating that the district reviewed the erosion and sediment control plan of the applicant and considers it to be satisfactory.

- (10) Proof of title or adequate flowage easements for land area below the top of the dam elevation that is subject to inundation.
- (11) Other information the Department may require.
- (b) The application shall be accompanied by a design report, construction plans and specifications, in sufficient detail to evaluate the safety, adequacy and suitability of the proposed work.
- (c) The applicant shall conduct and submit the results of the investigations and tests as the Department, in its judgment, believes are necessary to determine the safety, adequacy and suitability of design, including but not limited to:
- (1) Data concerning subsoil and rock foundation conditions and the materials entering into the construction of the dam or reservoir.
  - (2) Data concerning exploratory pits, drilling, coring and tests to determine seepage rates.
  - (3) Data concerning the strength tests necessary to measure the physical properties and behavior of foundation and embankment materials at the dam or reservoir site.
  - (4) Data concerning the geology of the dam or reservoir area, indicating possible hazards such as faults, weak seams and joints.
  - (5) Data concerning availability and quality of construction materials.
  - (6) Other information as may be necessary, including the design calculations for the dam, which shall be made available to the Department on request.
- (d) Plans and specifications and the results of tests or investigations shall be prepared under the supervision of and certified by a registered professional engineer experienced in dam design and construction and assisted by qualified engineers, geologists and other specialists, when necessary.

#### Source

The provisions of this § 105.81 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 12, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47994) and (38864).

### **§ 105.82. Permit applications for operation and maintenance of existing dams and reservoirs.**

- (a) In addition to information required by §§ 105.13 and 105.14 (relating to permit applications—information and fees; and review of applications), a permit application for the operation and maintenance of existing dams and reservoirs shall give the following information:
- (1) The name and address of the applicant.
  - (2) The location, type, size, height and purpose of the existing dam and reservoir and appurtenant works.

(3) For projects involving storage of fluids or semifluids other than water, information concerning the chemical and physical characteristics of the fluid or semifluid impounded.

(4) The storage capacity and reservoir surface areas for normal pool and maximum high water.

(5) A description of facilities and plans for monitoring the performance of the dam.

(6) Information on the area of the drainage basin, rainfall and stream flow records, and flood flow records and estimates, when available.

(7) Information readily available regarding the foundation, specifications and construction of the dam.

(8) The method and schedule of operation of the dam, if deemed necessary by the Department.

(9) The emergency warning plan for the dam or reservoir, if completed, or work plan to prepare and submit an emergency warning plan in accordance with §§ 105.131 and 105.134 (relating to operation and monitoring plans; and emergency action plan).

(10) Proof of title or flowage easements for land areas below the top of the dam elevation that is subject to inundation.

(11) Reports of the most recent inspections of the dam conducted by the owner or by the State or Federal government agencies.

(12) Other information as the Department may require.

(b) The Department may waive or modify one or more of the application content requirements set forth in subsection (a) if the information required is not available and is not essential to determining the safety of the dam or reservoir or compliance by the dam or reservoir with the requirements of this chapter.

#### Source

The provisions of this § 105.82 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38864).

### § 105.83. [Reserved].

#### Source

The provisions of this § 105.83 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38864).

**§ 105.84. [Reserved].****Source**

The provisions of this § 105.84 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38864).

**§ 105.85. [Reserved].****Source**

The provisions of this § 105.85 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38864) to (38865).

**§ 105.86. [Reserved].****Source**

The provisions of this § 105.86 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38865).

**§ 105.87. [Reserved].****Source**

The provisions of this § 105.87 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38865).

**CLASSIFICATION AND DESIGN CRITERIA****§ 105.91. Classification of dams and reservoirs.**

(a) A dam or reservoir shall be classified in accordance with size and the hazard potential which might occur in the event of an operational or structural failure. In approving a hazard potential classification, the Department will consider, without limitation:

- (1) The height of the dam and storage capacity of the reservoir.
- (2) The physical characteristics and extent of actual and projected development of the dam site and downstream areas.
- (3) The relationship of the site to existing or projected industrial, commercial and residential areas and other land uses downstream which may be affected by a dam failure.

(b) The following shall be the classifications and descriptions as used in this subchapter:

**SIZE CLASSIFICATION\***

<i>Class</i>	<i>Impoundment Storage</i>	
	<i>(Acre Feet)</i>	<i>Dam Height (Feet)</i>
A	Equal to or greater than 50,000	Equal to or greater than 100
B	Less than 50,000 but greater than 1000	Less than 100 but greater than 40
C	Equal to or less than 1000	Equal to or less than 40

\*Note: Size classification may be determined by either storage or height of structure, whichever gives the higher category.

**HAZARD POTENTIAL CLASSIFICATION***Extent of Development*

<i>Category</i>	<i>Loss of Life</i>	<i>Economic Loss</i>
1	Substantial	Excessive (extensive residential, commercial, agricultural and substantial public inconvenience)
2	Few (no rural communities or urban developments and no more than a small number of habitable structures)	Appreciable (damage to private or public property and short duration public inconvenience)
3	None expected (no permanent structure for human habitation)	Minimal (undeveloped or occasional structures with no significant effect on public inconvenience)

**Authority**

The provisions of this § 105.91 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.91 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117680) and (149139).

**Cross References**

This section cited in 25 Pa. Code § 87.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 90.112 (relating to hydrologic balance: dams, ponds, embankments and impoundments—design, construction and maintenance); 25 Pa. Code § 105.12 (relating to waiver of permit requirements); 25 Pa. Code § 105.13 (relating to permit applications—information and fees); 25 Pa. Code § 105.20 (relating to proof of financial responsibility); 25 Pa. Code § 105.53 (relating to inspections by owners and inspection reports); 25 Pa. Code § 105.98 (relating to design flood criteria); and 25 Pa. Code § 105.442 (relating to authorization for general permits).

**§ 105.92. Foundations.**

(a) The foundation of a dam or reservoir shall be stable under all probable conditions.

(b) In analyzing the stability of the foundation of a proposed or existing dam or reservoir, the applicant shall consider all of the following factors:

- (1) The seismic forces at the site.
- (2) The shearing strength of the foundation.
- (3) Settlement and subsidence.
- (4) Leakage, permeability and solubility.

**Source**

The provisions of this § 105.92 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38865).

**§ 105.93. Design stress.**

In the construction of dams and reservoirs, allowable stresses shall conform to the current standards accepted by the engineering profession.

**Source**

The provisions of this § 105.93 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 12, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47996).

**§ 105.94. Spillways.**

(a) Every dam shall be provided with a spillway system which is capable of safely conveying the design flood of the dam without endangering the safety or integrity of the dam.

(b) Each spillway shall include a satisfactory means of dissipating the energy flow at its outlet to assure conveyance of flow without endangering the safety and integrity of the dam or the natural environment of the stream.

**Source**

The provisions of this § 105.94 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; added September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4588).

**§ 105.95. Freeboard.**

Sufficient freeboard may be required to prevent overtopping of the dam and to allow for wave and ice action.

**Authority**

The provisions of this § 105.95 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.95 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; added September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (149140).

**§ 105.96. Outlet works.**

(a) Dams shall include a device to permit the draining of the reservoir within a reasonable period of time as determined by the Department unless the Department determines that an outlet works is not feasible for a specific dam.

(b) In determining the reasonable time period for drainage of the reservoir, the Department may consider, without limitation, the following factors:

(1) The damage potential posed by possible failure of the dam.

(2) The risk and nature of potential failure and the time likely to be available to avert the failure after notice of conditions threatening the safety or stability of the dam.

(3) The purpose of the dam and reservoir.

(4) The capacity and stability of available drainage courses to convey the waters released from the reservoir in the event of emergency drainage.

(5) The influence of rapid drawdown on the stability of the dam, its appurtenant works and the upstream natural slopes of the reservoir.

(c) Each outlet works shall include a means of dissipating the energy of flow at its outlet to assure conveyance of flow without endangering the safety and integrity of the dam or the natural environment of the stream.

**Source**

The provisions of this § 105.96 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.97. Stability of structure.**

(a) Dams shall be structurally sound and shall be constructed of sound and durable materials. The completed structure shall be stable under all probable conditions of operation.

(b) In reviewing the stability of a structure, the Department may consider, without limitation, the following:

- (1) The physical properties of the materials available for construction.
- (2) The seismic and hydraulic forces affecting the structure.
- (3) The methods of construction.
- (4) The conditions of operation of the dam and reservoir.

**Source**

The provisions of this § 105.97 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.98. Design flood criteria.**

(a) The discharge capacity or storage capacity, or both, shall be capable of safely accommodating the recommended design flood for the size and hazard potential classification of the dam as determined by § 105.91 (relating to classification of dams and reservoirs). The design flood is intended to represent the largest flood that need be considered in the evaluation of a given project. When a range of design flood is indicated, the magnitude that most closely relates to the size and hazard potential shall be selected. Design flood criteria shall be as indicated in the following table:

<i>Size and Hazard Potential Classification</i>	<i>Design Flood</i>
A-1,A-2,B-1	PMF
A-3,B-2, C-1	1/2 PMF to PMF
B-3, C-2	100 year to 1/2 PMF
C-3	50 year to 100 year frequency

(b) The Department may, in its discretion, require consideration of a minimum design flood for a class of dams or reservoirs in excess of that set forth in subsection (a) when it can be demonstrated that the design flood requirement is necessary and appropriate to provide for the integrity of the dam or reservoir and to protect life and property with an adequate margin of safety.

(c) The Department may, in its discretion, consider a reduced design flood for a class of dams or reservoirs when it can be demonstrated that the design flood provides for the integrity of the dam or reservoir and protects life and property with an adequate margin of safety.

**Source**

The provisions of this § 105.98 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.99. Dams in subdivision developments.**

Whenever a dam or reservoir is proposed to be constructed in or as a part of an existing or proposed subdivision development, the Department will include in the permit the conditions as are necessary to prevent construction of structures on lands which may be subject to flooding caused by the maximum pool of the dam and to require the permittee to adequately inform potential buyers or lessees of the restrictions.

**Source**

The provisions of this § 105.99 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**CONSTRUCTION REQUIREMENTS AND PROCEDURES****§ 105.101. Notices and reports.**

At least 15 days prior to commencement of construction, the permittee shall notify the Department, in writing, of the proposed time for commencement of work. Thereafter, a detailed report on the status of construction shall be submitted monthly to the Department of Environmental Resources; Division of Dam Safety; Post Office Box 2357, Harrisburg, Pennsylvania 17120, until construction work has been completed.

**Source**

The provisions of this § 105.101 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47996).

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.102. Personnel and supervision.**

(a) Work shall be conducted under the oversight and supervision of a competent engineer approved by the Department, and the engineer or a competent representative shall be on the work site during significant construction activities until the completion of the dam.

(b) The permittee shall file with the Department at least 15 days prior to the commencement of construction a statement setting forth the name of the contractors conducting the work authorized by the permit and the names and employers of personnel responsible for the supervision of construction.

**Source**

The provisions of this § 105.102 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47997).

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.103. Weather and ground conditions.**

(a) No earth or other embankment material which is in a frozen condition may be covered or placed in embankments.

(b) Masonry and concrete may not be placed in freezing weather except under conditions approved by the Department.

**Source**

The provisions of this § 105.103 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (47997).

**§ 105.104. Removal and disposal of vegetation.**

(a) Work shall be conducted in such a manner as to minimize the destruction of or damage to trees and other vegetation on and adjacent to the construction site.

(b) Vegetation cleared and removed from the site shall be disposed of in accordance with all applicable laws and regulations.

**Source**

The provisions of this § 105.104 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (4591) to (4592).

**§ 105.105. [Reserved].****Source**

The provisions of this § 105.105 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; reserved October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117685).

**§ 105.106. Activities and facilities on the construction site.**

Activities and facilities on the construction site shall be conducted and operated in such manner as to avoid pollution of the air and waters of this Commonwealth and in accordance with applicable laws and the provisions of this title.

**Source**

The provisions of this § 105.106 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.107. Completion certificate and final plans.**

(a) Within 30 days after the completion of work authorized by permit issued under this subchapter, the permittee shall file with the Department a certified statement signed by the supervising engineer and by the permittee that work has been performed in accordance with the terms and conditions of the permit; with the approved maps, plans, profiles and specifications; and with applicable laws and the provisions of this title.

(b) Within 90 days after the completion of work, the permittee shall file with the Department a set of final “as built” plans for the project, showing changes from the original plans and specifications.

**Source**

The provisions of this § 105.107 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**WATER STORAGE AND DISCHARGE****§ 105.111. Commencement of water storage.**

The permittee shall notify the Department, in writing, at least 1 week in advance of the date proposed for the commencement of water storage in the reservoir or pond created by the dam for which the permit is issued. The Department may, at its discretion, require that a representative of the Department be at the site before or during the filling of the pond or reservoir.

**Source**

The provisions of this § 105.111 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47997) to (47998).

**Cross References**

This section cited in 25 Pa. Code § 105.445 (relating to waiver of certain requirements).

**§ 105.112. Stream flow during construction, filling and repair.**

During the period of construction, alteration, enlargement or repair and during the period that the pond or reservoir is being filled, the permittee shall allow a

sufficient flow of water, as determined by the Department, into the stream below the dam to support fish and other aquatic life and to preserve the water quality in the stream.

**Source**

The provisions of this § 105.112 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (47998) and (38868).

**§ 105.113. Releases.**

(a) The Department will impose general and special conditions regarding release rates in a permit for a dam or reservoir that it deems necessary to maintain stream flows for the purposes of protection of public health, water quality control, conservation of fisheries and aquatic habitat, improvement of recreation and protection of instream and downstream water uses. The appropriate release rates for the dams and reservoirs shall be established in accordance with subsections (b) and (c).

(b) For dams or reservoirs constructed after August 28, 1978:

(1) The minimum release rate unless modified in accordance with paragraph (2) shall be the average consecutive 7 day flow having a recurrence interval of once in 10 years (Q 7-10) plus an additional release rate determined by the following formula:

Release rate

$$(\text{csm}) = Q7-10 + \text{PDF}(.25 \text{ csm} - Q7-10 \text{ csm})$$

where PDF = the percentage factor based on the storage capacity of the reservoir measured as percent of average annual runoff retained in the reservoir. This factor is explained in Planning Principles, State Water Plan SWP-1 (March, 1975).

.25 csm = .25 cubic feet per second of flow per square mile of watershed.

Q7-10csm = The seven-day, ten-year flow, in cubic feet per second per square mile of watershed.

The minimum release rate determined by this formula shall not exceed 0.25 cubic feet per square mile of watershed.

(2) The Department may modify the minimum release rate, or provide variable schedules or releases considering the following factors:

(i) The purposes stated in subsection (a).

(ii) Particular stream requirements, including the particular needs of instream and downstream water uses and riparian rights.

(iii) The particular uses and purposes of the dam or reservoir.

- (iv) The particular engineering, hydrologic and economic factors affecting the ability of the dam or reservoir to provide the releases.
- (c) For dams and reservoirs constructed prior to August 28, 1978, the Department will determine a reasonable schedule for release rates, considering all of the following:
- (1) The purposes stated in subsection (a) and the particular needs of instream and downstream water uses on the affected stream.
  - (2) The capacity of existing release works at the dam and feasibility of potential modification of the release works.
  - (3) The yield of the reservoir, and its capability to meet release requirements and satisfy the purposes and uses of the reservoir.
  - (d) Every dam shall at all times be operated in such manner as to allow the required flow of water into the stream below the dam as established under this section, and as otherwise necessary to support fish and other aquatic life and to assure compliance with the water quality criteria set forth in Chapter 93 (relating to water quality standards) and to provide for other instream uses for the affected stream.

**Source**

The provisions of this § 105.113 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38868) to (38870).

**§ 105.114. [Reserved].**

**Source**

The provisions of this § 105.114 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38870) to (38871).

**PROTECTION AND RESTORATION OF AQUATIC LIFE**

**§ 105.121. Fishways.**

Upon the request of the Fish Commission, the permittee shall install and maintain chutes, slopes, fishways, gates or other devices that the Fish Commission may require under sections 185—187 of The Fish Law of 1959 (30 P. S. §§ 185—187) (Repealed).

**Source**

The provisions of this § 105.121 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38871) to (38872).

**§ 105.122. Drawdown of impounded waters.**

Impounded waters which are inhabited by fish may not be drawn down except with the written approval of the Fish Commission issued under section 191 of The Fish Law of 1959 (30 P. S. § 191) (Repealed).

**Source**

The provisions of this § 105.122 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38872).

**Cross References**

This section cited in 25 Pa. Code § 105.131 (relating to operation and monitoring plans).

**§ 105.123. Restoration of aquatic life.**

If the Department finds that construction of a dam or reservoir has so substantially disrupted aquatic life as to preclude natural restoration of the stream ecology within a reasonable period of time, the permittee shall be required to submit and implement a plan to restore the aquatic life of the stream to its prior condition, to the maximum extent possible. The plan shall be subject to review and modification by the Department in consultation with the Fish Commission and shall include but not be limited to:

- (1) Placement of bed gravel.
- (2) Stabilization of banks and bed.
- (3) Installation of stream improvement devices.
- (4) Revegetation of stream and banks.
- (5) Stocking of fish and other aquatic life.

**Source**

The provisions of this § 105.123 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4594).

**§ 105.124. [Reserved].****Source**

The provisions of this § 105.124 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4594).

**§ 105.125. [Reserved].****Source**

The provisions of this § 105.125 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4594).

**OPERATION, MAINTENANCE AND EMERGENCIES****§ 105.131. Operation and monitoring plans.**

(a) In addition to the requirements of §§ 105.51—105.54 (relating to operation, maintenance and inspection), the permittee or owner of a dam or reservoir shall follow the method and schedule of operation of the dam or reservoir, including the emergency action plan if required by § 105.134 (relating to emergency action plan), as approved by the Department and shall implement a plan approved by the Department for permanent monitoring of performance by instrument installation in the dam.

(b) A permittee or owner of a dam or reservoir may not modify or cease implementation of all or part of the approved plans and methods of operation or monitoring without the prior approval of the Department.

(c) The permittee or owner of a dam or reservoir shall operate and maintain the dam in accordance with the authorized plans and specifications. Normal repairs and maintenance of the dam and the reservoir's design storage capacity will not require further authorization except as provided in § 105.122 (relating to drawdown of impounded waters).

**Authority**

The provisions of this § 105.131 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.131 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117690).

**Cross References**

This section cited in 25 Pa. Code § 105.82 (relating to permit applications for operation and maintenance of existing dams and reservoirs).

**§ 105.132. Inspection.**

The permittee or owner of a dam or reservoir shall follow the inspection schedule set forth in § 105.53 (relating to inspections by owners and inspection reports).

**Source**

The provisions of this § 105.132 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (4595).

**§ 105.133. Directed repairs.**

The permittee shall immediately take steps that the Department may prescribe as necessary to preserve the structural stability and integrity of the dam and protect health, safety and property.

**Source**

The provisions of this § 105.133 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.134. Emergency action plan.**

(a) The owner of a dam or reservoir that may cause loss of life or serious damage to property if a failure of the dam occurs, shall develop an emergency action plan to be followed in the event of a dam hazard emergency. The emergency action plan shall be submitted to and approved by the Department and local emergency management officials prior to commencement of water storage in the reservoir or pond created by the dam during any stage of construction of the dam. The emergency action plan shall, at a minimum, contain the following elements:

(1) An identification of the area below the dam which may be threatened with loss of life or serious damage to property if a failure of the dam occurs.

(2) A listing of key municipal and emergency management officials and their telephone numbers. The list shall be readily available at the dam site near a telephone or other means of communication, if available.

(3) An identification of handicapped or other persons who may have difficulty evacuating the area which may be threatened if a failure of the dam occurs. Procedures for identifying and evacuating these people in a dam hazard emergency shall be developed in cooperation with local and emergency management officials.

(b) For an existing dam or reservoir that may cause loss of life or serious damage to property if failure of the dam occurs, an emergency action plan shall be submitted to and approved by the Department and local emergency management officials.

(c) In addition to the requirements in subsections (a) and (b), the owner of a high hazard dam shall post notices in public places in areas that may be affected by the failure of the dam; for example, areas where public water or sewage service may be interrupted. The notice shall indicate that copies of the emergency action plan are available for review at the appropriate county and municipal emergency management offices. Also, the notice shall be posted by the owner in the following public places within each political subdivision situated within the inundation area downstream of the dam:

- (1) The city, borough or township building.
- (2) The police department offices.
- (3) The fire company halls.
- (4) The tax collector's office.

#### Authority

The provisions of this § 105.134 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.134 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117691) to (117692).

#### Cross References

This section cited in 25 Pa. Code § 105.81 (relating to permit applications for construction and modification of dams and reservoirs); 25 Pa. Code § 105.82 (relating to permit applications for operation and maintenance of existing dams and reservoirs); 25 Pa. Code § 105.131 (relating to operation and monitoring plans); and 25 Pa. Code § 105.135 (relating to dam hazard emergencies).

### § 105.135. Dam hazard emergencies.

(a) For the purposes of this section, a dam hazard emergency means a condition which the Department, permittee or owner of the dam reasonably finds constitutes an imminent threat to life or property above or below a dam, whether arising from the condition of the dam and appurtenant works or extraordinary natural conditions, affecting the safety and stability of the dam, including, but not limited to, flood, earthquake, fire and ice jam.

(b) The emergency procedures and the emergency warning system and operation plan required by §§ 105.63 and 105.134 (relating to emergency procedures; and emergency action plan) shall be followed by the permittee and owner of a dam or reservoir in the event of an actual or potential dam hazard emergency.

(c) If a dam hazard emergency exists, the Department and the permittee or owner of the dam shall immediately notify appropriate emergency management officials of the existence of the hazard and request the authorities to initiate

appropriate action to assure protection of life and property; and the permittee or owner shall immediately take the steps as are necessary to prevent dam failure or loss of life or property, including, but not limited to, the following:

- (1) Draw down of the reservoir.
- (2) Reinforcement of the dam structure.
- (3) Breach or removal of the dam.
- (4) Removal of debris.
- (5) Repair or installation of structures necessary to assure the stability and safety of the dam.

(d) The Department, upon determining that a dam hazard emergency exists, will notify the owner immediately to take steps the Department determines are necessary to prevent dam failure or loss of life or property.

#### Source

The provisions of this § 105.135 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

#### Cross References

This section cited in 25 Pa. Code § 105.136 (relating to unsafe dams).

### § 105.136. Unsafe dams.

(a) For purposes of this section, an unsafe dam means a dam which meets one or more of the following criteria:

- (1) A dam with deficiencies of such a nature that if not corrected could result in the failure of the dam with subsequent loss of lives or substantial property damage. This determination is based on good engineering judgment or the application of the guidelines established for the National Dam Inspection Program.
- (2) A dam classified as unsafe under the National Dam Inspection Program.
- (3) A dam declared as unsafe by the Department.

(b) The owner of an unsafe dam shall do the following:

- (1) Immediately notify the Department upon receipt of any information indicating the dam is unsafe.
- (2) Drain the dam as approved or required by the Department.
- (3) Within time limits established by the Department, submit a plan for removal of the dam, a plan for repair of the dam or an application for a permit authorizing modification of the dam under subsection (c).
- (4) Following approval of the plan or permit by the Department, undertake and complete actions to remove or repair the dam or implement the modifications to the dam within the time limits set by the Department.

(c) The Department may issue a permit for modification of an unsafe dam, under section 9 of the act (32 P. S. § 693.9), which authorizes the owner of an

unsafe dam to modify the dam within the time prescribed in the permit to meet the requirements of the act and this chapter. The permit shall be conditioned upon:

(1) Compliance by the owner of the dam with a prescribed schedule for correction or modification of the unsafe condition within the shortest time period technically feasible and economically achievable.

(2) Implementation by the owner of the dam of measures deemed necessary by the Department to reduce risks to health and safety pending correction or modification of the unsafe condition, including but not limited to special provisions relating to operation, emergency planning, monitoring and warning systems, and development of an alternative source of water supply if the dam serves as a water supply dam.

(d) In determining whether to require removal of an unsafe dam or to permit the owner to modify the dam, the Department will consider whether there is a substantial adverse impact to the public health and safety which will result from the draining and removal of the dam, and whether that adverse impact outweighs the danger to public health and safety, which outweighing will result in allowing the unsafe dam to remain until it has been modified.

(e) At the discretion of the Department, a public hearing may be held in the affected area prior to the issuance of a permit authorizing modification of an unsafe dam over a period of more than 6 months, to inform affected communities of the risks which may result from allowing the unsafe dam to remain standing or to impound water during the time necessary to complete the modifications.

(f) If the Department finds that conditions upon which the permit authorizing modification was issued have substantially changed or that the owner does not meet the schedule for modification contained in the permit, the Department will review the status of the dam. An extension of the time period for completion of a modification may be issued by the Department if the owner has proceeded in good faith with the previous schedule of modification and the requirements of subsections (c) and (d) are met.

(g) Nothing in this section may be construed to limit the power of the Department to take immediate action, prior to public hearing, to do one or more of the following:

(1) Revoke or suspend a permit where deemed necessary by the Department to protect public health and safety.

(2) Order correction or abatement of a dam hazard emergency under § 105.135 (relating to dam hazard emergencies)

(3) Take another action authorized by law.

#### Source

The provisions of this § 105.136 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter C. CULVERTS AND BRIDGES****GENERAL PROVISIONS**

- Sec.  
105.141. Scope.  
105.142. Applicability of stream enclosure rules.  
105.143. [Reserved].  
105.144. [Reserved].  
105.145. [Reserved].  
105.146. [Reserved].

**PERMITS**

- 105.151. Permit applications for construction or modification of culverts and bridges.  
105.152. Permit applications for operation and maintenance of existing culverts and bridges.  
105.153. [Reserved].  
105.154. [Reserved].  
105.155. [Reserved].  
105.156. [Reserved].  
105.157. [Reserved].  
105.158. [Reserved].

**DESIGN CRITERIA FOR CONSTRUCTION OR MODIFICATION**

- 105.161. Hydraulic capacity.  
105.162. Multiple pipes and spans.  
105.163. Bridge piers.  
105.164. Bridge abutments.  
105.165. Height of bridges and culverts.  
105.166. Placement of culverts.

**OPERATION AND MAINTENANCE**

- 105.171. Maintenance.  
105.172. Inadequate or collapsed structures.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications); and 25 Pa. Code § 105.315 (relating to aerial crossings).

**GENERAL PROVISIONS****§ 105.141. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter governs the construction, alteration,

enlargement, repair, maintenance and removal of a bridge or culvert located in, along or across, or projecting into the regulated waters of this Commonwealth.

**Source**

The provisions of this § 105.141 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38872) to (38873).

**§ 105.142. Applicability of stream enclosure rules.**

A culvert of greater than 100 feet in upstream to downstream length shall be considered to be a stream enclosure, subject to Subchapter D (relating to stream enclosures).

**Source**

The provisions of this § 105.142 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38873).

**§ 105.143. [Reserved].**

**Source**

The provisions of this § 105.143 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38873).

**§ 105.144. [Reserved].**

**Source**

The provisions of this § 105.144 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38874).

**§ 105.145. [Reserved].**

**Source**

The provisions of this § 105.145 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38874).

**§ 105.146. [Reserved].****Source**

The provisions of this § 105.146 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38874).

**PERMITS****§ 105.151. Permit applications for construction or modification of culverts and bridges.**

In addition to the information required under § 105.13 (relating to permit applications—information and fees), applications for permits under this subchapter for the construction or modification of culverts and bridges shall contain the following:

- (1) Plans showing the location, type, size and height of the proposed bridge or culvert and detailing the topographic features, elevations and structures so as to enable an appraisal of the hazard potential of the structure.
- (2) A description of the character of the stream bed and banks and a profile of the stream for a reasonable distance above and below the proposed site, showing slopes of bed, normal water surface and flood water surface.
- (3) A hydrologic and hydraulic analysis which shall include: data on size, shape and characteristics of the watershed; the amount and frequency of the design flood; the hydraulic capacity of the structure; the hydraulic capacity of the channel upstream and downstream; and, where flooding is a problem, flood damage and backwater analysis.
- (4) Other information as the Department may require.

**Source**

The provisions of this § 105.151 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38874) to (38875).

**§ 105.152. Permit applications for operation and maintenance of existing culverts and bridges.**

(a) In addition to information required by § 105.13 (relating to permit applications—information and fees), a permit application for the operation and maintenance of existing culverts and bridges shall give the following information:

- (1) Plans showing the location, type, size and height of the existing bridge or culvert and detailing the topographic features, elevations and structures so as to enable an appraisal of the hazard potential of the structure.

- (2) A description of the character of the stream bed and banks and a profile of the stream for a reasonable distance above and below the existing site showing slopes of bed, normal water surface and flood water surface.
- (3) Other information as the Department may require.

**Source**

The provisions of this § 105.152 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; amended August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38875) to (38876).

**§ 105.153. [Reserved].**

**Source**

The provisions of this § 105.153 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4597).

**§ 105.154. [Reserved].**

**Source**

The provisions of this § 105.154 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4597).

**§ 105.155. [Reserved].**

**Source**

The provisions of this § 105.155 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4597).

**§ 105.156. [Reserved].**

**Source**

The provisions of this § 105.156 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4598).

**§ 105.157. [Reserved].**

**Source**

The provisions of this § 105.157 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4598).

**§ 105.158. [Reserved].****Source**

The provisions of this § 105.158 adopted September 10, 1971, effective September 11, 1971, 1 Pa.B. 1804; reserved August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229. Immediately preceding text appears at serial page (4598).

**DESIGN CRITERIA FOR CONSTRUCTION OR MODIFICATION****§ 105.161. Hydraulic capacity.**

(a) Bridges and culverts shall be designed and constructed in accordance with the following criteria:

- (1) The structure shall pass flood flows without loss of stability.
- (2) The structure may not create or constitute a hazard to life or property, or both.
- (3) The structure may not materially alter the natural regimen of the stream.
- (4) The structure may not so increase velocity or direct flow in a manner which results in erosion of stream beds and banks.
- (5) The structure may not significantly increase water surface elevations.
- (6) The structure shall be consistent with local flood plain management programs.

(b) In determining flood flows and frequencies for purposes of this subchapter, hydrologic analysis shall be by methods generally accepted in the engineering profession.

(c) The general criteria for design flows are as follows:

- (1) Rural area—25-year frequency flood flow.
- (2) Suburban area—50-year frequency flood flow.
- (3) Urban area—100-year frequency flood flow.

(d) The determination of flood flows for design shall be made with reasonable consideration of development which may alter the runoff characteristics of the watershed during the anticipated life of the structure. Specific design requirements in subsection (c) may be varied to fit the conditions at the site and the requirements of flood plain management regulations and ordinances.

(e) The structures shall pass the 100-year frequency flood with less than a 1.0-foot increase in the natural unobstructed 100-year water surface elevation, except where the structure would be located in a floodway which is delineated on a FEMA map, in which case no increase in the 100-year water surface elevation will be permitted. Exceptions to this criteria may be approved by the Department if the applicant prepares a risk assessment which demonstrates, and the Department finds, that the structure will not significantly increase the flooding threat to life and property or the environment, and if applicable, is consistent with municipal floodplain management programs adopted under the National Flood Insurance

Program and a FEMA Flood Insurance Study. This information may be obtained from the Department of Community Affairs, Floodplain Management Division, Forum Building, Harrisburg, Pennsylvania 17120.

**Authority**

The provisions of this § 105.161 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.161 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117699).

**§ 105.162. Multiple pipes and spans.**

Multiple pipes and multiple span bridges and culverts which may tend to collect debris, contribute to the formation of ice jams and increase head losses shall be avoided to the maximum practicable extent. Crossings of less than 15 feet shall be by one span, except where conditions make it impractical to effect the crossing without multiple spans.

**Source**

The provisions of this § 105.162 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.163. Bridge piers.**

(a) Bridge piers shall be kept to a minimum in number and cross-sectional area and shall be designed to offer the least obstruction to the passage of water and ice, consistent with safety.

(b) Bridge piers in channels subject to unstable or super critical flow shall require special investigation and shall be so designed as to prevent the creation of excessive backwater and waves downstream of the pier.

**Source**

The provisions of this § 105.163 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.164. Bridge abutments.**

(a) Bridge abutments shall be set well into the banks in such manner as to assure minimal increase in flood elevations.

(b) Bridge abutments shall be aligned with the flow of the stream. The Department may require, in its discretion, the construction of wing walls at the upstream side of the bridge to assist in directing flood flows through the bridge opening.

**Source**

The provisions of this § 105.164 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.165. Height of bridges and culverts.**

Bridges and culverts shall be of sufficient height and clearance to allow the use of the stream or other body of water in its customary manner.

**Source**

The provisions of this § 105.165 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.166. Placement of culverts.**

- (a) Culverts shall be aligned with the stream flow.
- (b) Culverts shall be of sufficient width to minimize narrowing of the stream channel.
- (c) The upstream side of culverts shall be protected by wing walls or other structures sufficient to assist in directing flood flows to and through the culvert opening.

**Source**

The provisions of this § 105.166 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**OPERATION AND MAINTENANCE**

**§ 105.171. Maintenance.**

- (a) The owner or permittee of a culvert or bridge is responsible for maintaining the structure opening thereof in good repair and assuring that flood carrying capacity of the structure is maintained. The owner or permittee shall inspect the opening and approach of the culvert or bridge at regular intervals of not less than once each year and shall, after obtaining the verbal or written approval of the Department, remove silt and debris which might obstruct the flow of water through the structure. It shall be assumed that the flow of water is obstructed when there has been a reduction of the effective area of the structure opening of greater than 10%. Debris shall be disposed of in accordance with the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.101—4000.1904) and The Clean Streams Law (35 P. S. §§ 691.1—691.1001).

(b) Cleaning and maintenance operations shall be conducted to minimize erosion and sedimentation resulting therefrom.

(c) Removal of silt and debris from the stream channel for the purposes of culvert or bridge maintenance shall be accomplished in accordance with the *Standards for Channel Cleaning at Bridges and Culverts*. A copy of this document can be obtained from the Bureau of Dams and Waterway Management, Division of Waterways and Stormwater Management, Post Office Box 8554, Harrisburg, Pennsylvania 17105-8554.

#### Authority

The provisions of this § 105.171 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.171 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117701).

#### Cross References

This section cited in 25 Pa. Code § 105.211 (relating to maintenance).

### § 105.172. Inadequate or collapsed structures.

(a) The owner or permittee of a bridge or culvert shall immediately inform the Department of the collapse of the structure or a portion thereof or of the existence of unusual conditions threatening the structural integrity of the bridge or culvert, including, but not limited to, the following:

- (1) Undercutting of piers or abutments.
- (2) Excessive cracking of bridge or culvert surfacing.
- (3) Severe deterioration of piers and supports.
- (4) Diversion of all or part of the stream flow through a channel not within the normal span of the structure.

(b) Whenever a bridge or culvert or a portion thereof has collapsed or is in imminent danger thereof, the owner or permittee thereof shall immediately remove the collapsed portions to an area outside the floodplain of the stream and do one of the following:

- (1) Completely remove the structure.
- (2) Repair the structure in accordance with plans submitted to and approved by the Department.

(c) If the Department finds that the inadequate size, improper placement, collapse or imminent collapse of a bridge or culvert creates an immediate danger of stream obstruction and a hazard to life or property which not to permit the issu-

ance of an order or notice to the owner or permittee or if the owner or permittee cannot be readily contacted in sufficient time to assure adequate protection of life or property, the Department may exercise its powers under section 14 of the act (32 P. S. § 693.14) to remove or repair the conditions and take the actions it deems necessary to protect life and property and recover the cost and expense thereof from the owner or permittee.

#### Source

The provisions of this § 105.172 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

#### Cross References

This section cited in 25 Pa. Code § 105.211 (relating to maintenance).

### Subchapter D. STREAM ENCLOSURES

#### GENERAL PROVISIONS

Sec.  
105.181. Scope.  
105.182. [Reserved].

#### PERMITS

105.191. Permit applications for construction or modification of stream enclosures.  
105.192. Permit applications for operation and maintenance of existing stream enclosures.

#### CRITERIA FOR APPROVAL OF CONSTRUCTION OR MODIFICATION

105.201. Hydraulic capacity.  
105.202. Local government approval.

#### MAINTENANCE

105.211. Maintenance.

#### Cross References

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications); and 25 Pa. Code § 105.142 (relating to applicability of stream enclosure rules).

**GENERAL PROVISIONS****§ 105.181. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to the construction, alteration, enlargement, repair and removal of a stream enclosure or a culvert in regulated waters of this Commonwealth of upstream to downstream length in excess of 100 feet.

**Source**

The provisions of this § 105.181 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38877) to (38878).

**§ 105.182. [Reserved].****Source**

The provisions of this § 105.182 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38878).

**PERMITS****§ 105.191. Permit applications for construction or modification of stream enclosures.**

In addition to the information required by § 105.13 (relating to permit applications—information and fees), applications for permits under this subchapter for the construction and modification of stream enclosures shall contain the following information:

- (1) The location, type, size and height of the proposed stream enclosure.
- (2) A profile of the stream for a reasonable distance above and below the proposed site showing slopes of bed, normal water surface and flood water surface.
- (3) Estimates of flood frequencies and flood flows at the site of the proposed structure, including such information as can be reasonably obtained regarding actual rainfall and flood flow records on the stream.
- (4) An analysis of the hydraulic capacity of the proposed structure.
- (5) A description of the purposes of the proposed structure.
- (6) A complete listing and description of other enclosures and culverts, bridges, dams and other water obstructions located a reasonable distance upstream and downstream of the proposed enclosure.
- (7) Proof of title or adequate flowage and other easements for lands included in the site of the proposed structure, including lands which may be subject to flooding by backwater from the structure during a 100-year flood.

- (8) Other information as the Department may require.

**Source**

The provisions of this § 105.191 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38878).

**§ 105.192. Permit applications for operation and maintenance of existing stream enclosures.**

(a) In addition to information required by § 105.13 (relating to permit applications—information and fees), a permit application for the operation and maintenance of existing stream enclosures shall give the following information:

- (1) The location, type, size and height of the proposed stream enclosure.
- (2) A profile of the stream for a reasonable distance above and below the existing site.
- (3) An analysis of the hydraulic capacity of the existing structure.
- (4) A description of the purposes of the existing structure.
- (5) Other information the Department may require.

**Source**

The provisions of this § 105.192 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**CRITERIA FOR APPROVAL OF CONSTRUCTION OR  
MODIFICATION**

**§ 105.201. Hydraulic capacity.**

(a) A stream enclosure shall be designed and constructed to pass the flows from a flood of 100-year frequency, with no more than a 1.0-foot increase in the 100-year water surface elevation over the water surface elevation of the natural unimpeded 100-year flow, except where the stream enclosure would be located in a floodway which is delineated on a FEMA map in which case no increase in the 100-year water surface elevation will be permitted. The 100-year discharge shall be based upon the degree of development of the contributing watershed projected throughout the lifetime of the structure. The Department may require capacity in excess of that necessary to carry the flows from a 100-year flood if it determines the capacity is necessary to protect the structure or to assure the safety of life and property upstream or downstream of the enclosure.

(b) An exception to the criteria of subsection (a) may be approved by the Department if the applicant prepares a risk assessment which demonstrates, and the Department finds, that the structure will not significantly increase the flooding threat to life, property or the environment, and if applicable, is consistent with municipal floodplain management programs adopted pursuant to the National Flood Insurance Program and a FEMA Flood Insurance Study. This information

can be obtained from the Department of Community Affairs, Floodplain Management Division, Forum Building, Harrisburg, Pennsylvania 17120.

**Authority**

The provisions of this § 105.201 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.201 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117704) to (117705).

**§ 105.202. Local government approval.**

No political subdivision may issue a building or other permit which allows for the construction of a stream enclosure unless and until the Department has approved the enclosure.

**Source**

The provisions of this § 105.202 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**MAINTENANCE**

**§ 105.211. Maintenance.**

(a) Stream enclosures shall be maintained in accordance with §§ 105.171 and 105.172 (relating to maintenance; and inadequate or collapsed structures).

(b) Stream enclosures shall include provisions for adequate access to allow maintenance of the entire length of the enclosure. The access points shall be protected, to the maximum extent possible, in a manner which will prevent the entrance of unauthorized persons.

**Source**

The provisions of this § 105.211 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38879) to (38880).

**Subchapter E. CHANNEL CHANGES AND DREDGING FOR FACILITY CONSTRUCTION AND MAINTENANCE**

Sec.  
105.221. Scope.  
105.222. [Reserved].  
105.223. [Reserved].  
105.224. [Reserved].

**PERMITS**

- 105.231. Permit applications for construction or modification of channel changes and dredging for facility construction and maintenance.
- 105.232. Maintenance dredging.
- 105.233. Removal of sand, gravel and other valuable minerals.

**CRITERIA FOR APPROVAL FOR CONSTRUCTION OR  
MODIFICATION**

- 105.241. Flood effect.
- 105.242. Channel alignment and cross section.
- 105.243. Temperature of water and shading.
- 105.244. Protection of fish life.
- 105.245. Disposal of waste materials.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**CONSTRUCTION AND MAINTENANCE****§ 105.221. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to channel changes in the regulated waters of this Commonwealth, and to dredging in the regulated waters of this Commonwealth conducted for purposes of construction, operation or maintenance of a dam, water obstruction or encroachment.

**Source**

The provisions of this § 105.221 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38880).

**§ 105.222. [Reserved].****Source**

The provisions of this § 105.222 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38880).

**§ 105.223. [Reserved].****Source**

The provisions of this § 105.223 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38880).

**§ 105.224. [Reserved].****Source**

The provisions of this § 105.224 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38881).

**PERMITS****§ 105.231. Permit applications for construction or modification of channel changes and dredging for facility construction and maintenance.**

(a) *Construction or modification of channel changes.* Construction or modification of channel changes includes the following:

(1) In addition to the information required by § 105.13 (relating to permit applications—information and fees), permit applications under this subchapter for the construction or modification of channel changes shall contain the following information:

(i) The location and length of the proposed channel change.

(ii) A stream profile for a reasonable distance upstream and downstream of the proposed change, showing bed slopes, normal water surface and depths, flood water surfaces, existing obstructions and the location of public and industrial water supply intake.

(iii) Cross-channel sections necessary to indicate the scope of the proposed work.

(iv) Estimates of flood frequencies and flood flows at the site of the proposed channel change, including information reasonably available regarding actual rainfall and flood flow records on the stream.

(v) A description of the purposes of the proposed channel change.

(vi) A plan for the disposal of excavated material.

(vii) Proof of title or adequate flowage and other easements for lands included in the site of the proposed channel change.

(2) The Department may require additional information or waive one or more of the requirements of paragraph (1) in specific cases.

(b) *Dredging.* Dredging includes the following:

(1) In addition to the information required by § 105.13, permit applications for dredging for facility construction and maintenance under this subchapter shall contain the following information:

- (i) The location and area of the proposed dredging.
- (ii) A stream profile for a reasonable distance upstream and downstream of the proposed dredging showing normal water surface and depths.
- (iii) A description of the equipment to be employed in the dredging operation and a plan for the disposal of the dredge soil.
- (iv) Proof of title or easements for lands included in the site of the proposed dredging.

(2) The Department may require additional information or waive one or more of the requirements of paragraph (1) in specific cases.

#### Source

The provisions of this § 105.231 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38882).

#### Notes of Decisions

##### *Dredging*

The terms and conditions attached to a dredging permit are terms and conditions of the permit, rather than rules and regulations. *Warren Sand and Gravel Co. v. Department of Environmental Resources*, 341 A.2d 556 (Pa. Cmwlth. 1975).

**Editor's Note:** Chapter 105 has been extensively amended since this case was decided. The case actually referred to §§ 105.21 and 105.77.

#### **§ 105.232. Maintenance dredging.**

Permits issued for the construction, operation and maintenance of water obstruction or encroachment shall include specific authorization for maintenance dredging.

#### Source

The provisions of this § 105.232 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

#### **§ 105.233. Removal of sand, gravel and other valuable minerals.**

The removal of sand, gravel or other valuable minerals from submerged lands of this Commonwealth in quantities which are commercially usable or marketable, in conjunction with a channel change or dredging permitted under this chapter, shall be subject to the royalty and agreement provisions of the act of July 31, 1970 (P. L. 699, No. 225) and the act of December 3, 1970 (P. L. 834, No. 275) (71 P. S. § 468) (repealed).

#### Source

The provisions of this § 105.233 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Cross References**

This section cited in 25 Pa. Code Chapter 105, Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3).

**CRITERIA FOR APPROVAL FOR CONSTRUCTION OR  
MODIFICATION****§ 105.241. Flood effect.**

No channel change which creates a flooding potential greater than that created by the natural conditions of the existing channel will be approved.

**Source**

The provisions of this § 105.241 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (3882) to (3883).

**§ 105.242. Channel alignment and cross section.**

(a) Abrupt bends in channel changes are prohibited, unless necessitated by the alignment of existing bridges or encroachments.

(b) The relocated channel shall rejoin the natural channel of the stream at a point on the permittee's property to insure that alignment of stream flow at the downstream property line is identical to the flow alignment prior to the channel change.

(c) A grade of the changed channel shall not be significantly greater than or significantly less than the grade of the original channel, unless the length of the relocated channel requires.

(d) Where the width of a channel change is greater than the width of the pre-existing channel, provision shall be made to assure proper depth and velocity of normal flows, subchannels and installation of stream habitat improvement devices.

(e) In streams having substantial fisheries value, provision shall be made in channel changes to maintain existing pool-riffle ratios.

**Source**

The provisions of this § 105.242 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.243. Temperature of water and shading.**

Channel changes shall be so designed and implemented to assure that the water temperature does not substantially increase over that in the preexisting channel. Where necessary, provisions shall be made to provide adequate shading of the relocated channel to duplicate, to the maximum extent possible, the preexisting conditions.

**Source**

The provisions of this § 105.243 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.244. Protection of fish life.**

A low flow channel and habitat improvement device will be required when, in the opinion of the Fish Commission, it is necessary to provide a satisfactory channel for maintenance of fish life.

**Source**

The provisions of this § 105.244 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.245. Disposal of waste materials.**

(a) Discharge of dredged material into the regulated waters of this Commonwealth shall be subject to Subchapter J (relating to discharges of dredged and fill material).

(b) Dredged spoil and sludge deposits collected during the operation shall be deposited in a location and a manner approved by the Department.

(c) Bilge, ballast or wastewater from dredging operations shall not be discharged to the stream without removal of oils, petroleum products or toxic or hazardous compounds as defined by the Conservation and Recovery Act of 1976 (42 U.S.C.A. §§ 6901—6986) in a manner approved by the Department.

**Source**

The provisions of this § 105.245 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter F. FILLS, LEVEES, FLOODWALLS AND  
STREAMBANK RETAINING DEVICES****GENERAL PROVISIONS**

Sec.

105.251. Scope.

105.252. [Reserved].

105.253. [Reserved].

105.254. [Reserved].

105.255. [Reserved].

105.256. [Reserved].

**PERMITS**

- 105.261. Permit applications for construction or modification of fills, levees, floodwalls and streambank retaining devices.
- 105.262. Permit applications for existing fills, levees, floodwalls and streambank retaining devices.

**DESIGN CRITERIA FOR APPROVAL FOR CONSTRUCTION  
OR MODIFICATION**

- 105.271. General criteria.
- 105.272. Waste materials.
- 105.273. Slopes.
- 105.274. Top width of levees.
- 105.275. Interior drainage.
- 105.276. Freeboard allowance.

**MAINTENANCE AND REPAIR**

- 105.281. Maintenance and repair of levees or floodwalls.
- 105.282. Maintenance of fills.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**GENERAL PROVISIONS****§ 105.251. Scope**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to the construction, alteration, enlargement, repair or removal of fills, levees, floodwalls and streambank retaining walls located in or along the regulated waters of this Commonwealth.

**Source**

The provisions of this § 105.251 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38883).

**§ 105.252. [Reserved].****Source**

The provisions of this § 105.252 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38883).

**§ 105.253. [Reserved].****Source**

The provisions of this § 105.253 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38884).

**§ 105.254. [Reserved].****Source**

The provisions of this § 105.254 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38884).

**§ 105.255. [Reserved].****Source**

The provisions of this § 105.255 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38884).

**§ 105.256. [Reserved].****Source**

The provisions of this § 105.256 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38884).

**PERMITS****§ 105.261. Permit applications for construction or modification of fills, levees, floodwalls and streambank retaining devices.**

In addition to the information required by § 105.13 (relating to permit applications—information and fees), applications for permits for construction or modification of structures under this subchapter shall contain the following information:

- (1) A plan detailing the location of the structures and properties 1000 feet upstream and downstream of the proposed fill, levee or similar structure and within the flood plain of the flood of record on both sides of the stream or body of water.
- (2) Basement and first floor elevations of structures indicated on the plan required by paragraph (1).
- (3) A complete hydraulic and hydrologic report on the proposed project, including, if the Department so requires, a backwater analysis of the project.

- (4) Complete cross sections of the stream and floodway of the flood or record.
- (5) Stream profiles showing the bed slope and the normal and flood water elevations for points sufficiently upstream and downstream in effect on the project.
- (6) The type of materials to be used on the fill, levee or similar structure.
- (7) Plans for the protection of the fill, levee or similar structure from erosion, both during and after construction.
- (8) The design flood for the fill, levee or similar structure.
- (9) A copy of the local flood plain management regulations or ordinances.
- (10) Plans for interior drainage.
- (11) Other information as the Department may require.

**Source**

The provisions of this § 105.261 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38884).

**§ 105.262. Permit applications for existing fills, levees, floodwalls and streambank retaining devices.**

In addition to the information required by § 105.13 (relating to permit applications—information and fees), applications for permits for existing structures under this subchapter shall contain the following information:

- (1) A plan detailing the location of the existing fill, levee, floodwall or streambank retaining device.
- (2) Cross sections of the stream and floodway.
- (3) The type of all materials used in the fill, levee, floodwall or streambank retaining device.
- (4) Plans of interior drainage, if available.
- (5) Other information as the Department may require.

**Source**

The provisions of this § 105.262 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38884) to (38885).

**DESIGN CRITERIA FOR APPROVAL FOR CONSTRUCTION OR MODIFICATION**

**§ 105.271. General criteria.**

(a) An application for a proposed levee, fill or similar structure in or along the regulated waters of this Commonwealth will not be approved by the Department where one or more of the following will occur:

- (1) It will increase flood heights, either on the opposite bank or upstream and flood easements or flood protection has not been provided.
  - (2) It will create erosive velocities in the stream and appropriate protection has not been provided.
  - (3) It will increase flood damages downstream through a loss of flood plain storage.
- (b) An application for a proposed levee, fill or similar structure within the floodway of a regulated water of this Commonwealth will not be approved by the Department unless the applicant demonstrates that the project is consistent with local floodplain management programs.

**Source**

The provisions of this § 105.271 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38885).

**§ 105.272. Waste materials.**

Waste materials of any type may not be used in the construction of fills, levees or similar structures, except under the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.101—4000.1904) and related rules and regulations.

**Authority**

The provisions of this § 105.272 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.272 adopted September 27, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117714).

**§ 105.273. Slopes.**

The slope of a fill, levee or similar structure shall not be steeper than two horizontal to one vertical, unless special circumstances are demonstrated and adequate steps are taken to assure permanent stabilization of the slope.

**Source**

The provisions of this § 105.273 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.274. Top width of levees.**

The top width of a levee shall not be less than 10 feet.

**Source**

The provisions of this § 105.274 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.275. Interior drainage.**

Adequate facilities shall be provided to drain the interior area behind the levee or floodwall.

**Source**

The provisions of this § 105.275 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.276. Freeboard allowance.**

The height of a levee or floodwall shall provide an allowance for freeboard above the design flood of the structure.

**Source**

The provisions of this § 105.276 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**MAINTENANCE AND REPAIR****§ 105.281. Maintenance and repair of levees or floodwalls.**

(a) The owner of a levee or floodwall shall inspect the levee or floodwall and appurtenant structures, including drainage facilities, at least annually and shall comply with § 105.53 (relating to inspections by owners and inspection reports).

(b) Trees and other vegetation with deep roots shall not be allowed on a levee used for flood control purposes, and vegetation shall at all times be controlled.

**Source**

The provisions of this § 105.281 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38885).

**§ 105.282. Maintenance of fills.**

Fills shall at all times be maintained in a manner to prevent erosion and to assure the stability of the slopes.

**Source**

The provisions of this § 105.282 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter G. STREAM CROSSINGS, OUTFALLS AND HEADWALLS****GENERAL PROVISIONS**

- Sec.  
105.291. Scope.  
105.292. [Reserved].  
105.293. [Reserved].  
105.294. [Reserved].

**PERMITS**

- 105.301. Permit applications for construction or modification.  
105.302. Permit applications for existing stream crossings by pipelines for conveyance of petroleum products and gas.

**CRITERIA FOR APPROVAL OF CONSTRUCTION OR MODIFICATION**

- 105.311. General criteria.  
105.312. Cover material.  
105.313. Pipelines under stream beds.  
105.314. Pipelines along streams.  
105.315. Aerial crossings.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**GENERAL PROVISIONS****§ 105.291. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to stream crossings, outfalls, headwalls, pipelines, aerial crossings and other analogous structures which are placed in, along, across, over or under the regulated waters of this Commonwealth.

**Source**

The provisions of this § 105.291 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38886).

**§ 105.292. [Reserved].****Source**

The provisions of this § 105.292 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38886).

**§ 105.293. [Reserved].****Source**

The provisions of this § 105.293 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38887).

**§ 105.294. [Reserved].****Source**

The provisions of this § 105.294 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38887).

**PERMITS****§ 105.301. Permit applications for construction or modification.**

In addition to the information required under § 105.13 (relating to permit applications—information and fees), applications for stream crossings shall contain the following, where applicable:

- (1) The shore lines of the affected body of water, including both high and low water marks.
- (2) Existing structures and stream crossings in the vicinity of the proposed crossings.
- (3) The alignment of the proposed pipe or cable.
- (4) The depth of the proposed pipe or cable and the clear depth below the data plane to be afforded by the pipe or cable in navigable channels.
- (5) A cross section of the stream from bank to bank with the location of the stream crossing to be affixed thereon.
- (6) In the case of outfalls, the discharge capacity of the structures.
- (7) A statement indicating the purpose of the proposed stream crossing.
- (8) The amount and type of cover material.
- (9) Adequate provisions for shut-off in the event of break or rupture.
- (10) Other information as the Department may require.

**Source**

The provisions of this § 105.301 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38888).

**§ 105.302. Permit applications for existing stream crossings by pipelines for conveyance of petroleum products and gas.**

In addition to the information required under § 105.13 (relating to permit applications—information and fees), applications for existing stream crossings by pipelines for conveyance of petroleum products and gas shall contain the following:

- (1) The shore lines of the affected body of water, including both high and low water marks.
- (2) The alignment and depth of the pipe or cable, and the clear depth below the data plane afforded by the pipe in navigable channels.
- (3) A cross section of the stream from bank to bank with the location of the pipeline affixed thereon.
- (4) The amount and type of cover material.
- (5) Provisions for shut-off in the event of break or rupture.
- (6) Other information as the Department may require.

**Source**

The provisions of this § 105.302 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**CRITERIA FOR APPROVAL OF CONSTRUCTION OR MODIFICATION**

**§ 105.311. General criteria.**

In evaluating applications for stream crossings, outfalls, headwalls, pipelines, aerial crossings and other analogous structures, the Department will not approve an application if one or more of the following is true:

- (1) The stream crossings are placed in such a manner as to be displaced by flood waters.
- (2) The stream crossing alters the cross section of the stream and its banks.
- (3) There is unnecessary paralleling or crossing of streams by pipelines or cables.
- (4) Pipelines or cables are placed on the bed of streams.

**Source**

The provisions of this § 105.311 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38888).

**§ 105.312. Cover material.**

No waste material of any type may be used as cover material for stream crossings.

**Source**

The provisions of this § 105.312 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38888).

**§ 105.313. Pipelines under stream beds.**

(a) Pipelines under stream beds shall be located such that there will be a minimum of 3 feet of cover between the top of the pipe or encasement and the lowest point in the stream bed; provided, that if the pipeline is in rock, it shall have the depth of granular soil plus 6 inches for cover, but never less than 1 foot of total cover.

(b) Pipelines under the stream bed shall be as near to horizontal as possible.

(c) The Department may require additional information or waive the requirements of subsection (a) in specific cases.

**Source**

The provisions of this § 105.313 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.314. Pipelines along streams.**

Pipelines along streams shall be located a sufficient distance away from the bank to prevent damage to the bank as a result of erosion; pipelines shall be located a minimum of 25 feet away from the streambank unless other erosion protection measures are approved by the Department.

**Source**

The provisions of this § 105.314 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.315. Aerial crossings.**

Aerial crossings shall comply with the criteria of Subchapter C (pertaining to culverts and bridges) with regard to hydraulic capacity, height and clearance.

**Authority**

The provisions of this § 105.315 issued under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.315 adopted October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911.

**Subchapter H. DOCKS, WHARVES AND BULKHEADS****GENERAL PROVISIONS**

Sec.

105.321. Scope.

**PERMITS**

105.331. Permit applications.

105.332. Riparian property.

**CRITERIA FOR APPROVAL**

105.341. Passage of ice and flood waters.

**OPERATION AND MAINTENANCE**

105.351. Removal of structure.

105.352. [Reserved].

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**GENERAL PROVISIONS****§ 105.321. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to the construction, operation and maintenance of docks, wharves and bulkheads in the regulated waters of this Commonwealth.

**Source**

The provisions of this § 105.321 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38889).

**PERMITS****§ 105.331. Permit applications.**

In addition to the information required under § 105.13 (relating to permit applications—information and fees), applications for new and existing docks, wharves and bulkheads shall contain the following information:

- (1) The exact location of the structure.

- (2) A plan showing the dimensions of the structure, and if applicable, the dimensions of the mooring area.
- (3) A plan indicating the relation of the structure and mooring area to the banks and channel, neighboring structures and mooring areas, the navigation channel and the normal pool elevation or ordinary low water mark.
- (4) Cross sections indicating elevations of structures, location of pilings and water depth.
- (5) The purposes for which the structure will be used.
- (6) Other information the Department may require.

#### Authority

The provisions of this § 105.331 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

#### Source

The provisions of this § 105.331 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117720).

### § 105.332. Riparian property.

When an applicant proposes location of a structure on or in front of riparian property not owned by the applicant, the applicant shall obtain and furnish to the Department notarized and signed releases from the owners of the affected riparian property.

#### Source

The provisions of this § 105.332 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

## CRITERIA FOR APPROVAL

### § 105.341. Passage of ice and flood waters.

Structures shall be able to pass flood waters and ice without property damage and without increasing the upstream flood hazard.

#### Source

The provisions of this § 105.341 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38890).

**OPERATION AND MAINTENANCE****§ 105.351. Removal of structure.**

Upon termination of the useful life of the structure, the owner shall remove it completely and restore the banks.

**Source**

The provisions of this § 105.351 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38890) to (38891).

**§ 105.352. [Reserved].****Source**

The provisions of this § 105.352 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38891).

**Subchapter I. COMMERCIAL DREDGING****GENERAL PROVISIONS**

- Sec.  
105.361. Scope.  
105.362. [Reserved].  
105.363. [Reserved].  
105.364. [Reserved].  
105.365. [Reserved].

**PERMITS**

- 105.371. Permits: content of application.  
105.372. Prior requisite approvals.

**OPERATIONAL CRITERIA**

- 105.381. Location of dredging.  
105.382. Washing and classification of materials.  
105.383. Disposal of waste materials.  
105.384. Protection of stream users.  
105.385. Reporting.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications).

**GENERAL PROVISIONS****§ 105.361. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to dredging in the regulated waters of this Commonwealth for sand, gravel and other minerals for the purposes of commercial exploitation. This subchapter shall not be construed to restrict the Department in managing the Commonwealth's proprietary interests under the act of July 31, 1970 (P. L. 699, No. 225) (71 P. S. § 468) (repealed), repealed by the act of December 3, 1970 (P. L. 834, No. 275); section 15 of the act (32 P. S. § 693.15); and section 1908-A(3) of The Administrative Code of 1929 (71 P. S. § 510-8(3)), from exercising its discretion to issue or not to issue permit agreements or to impose terms and conditions in permit agreements that it deems to be in the best interests of the Commonwealth; in the event, however, that the Department issues a permit agreement conveying the Commonwealth's proprietary interests in a deposit of sand, gravel or other minerals, this subchapter constitutes the minimum requirements for dredging under the Commonwealth's regulatory authority under the act.

**Source**

The provisions of this § 105.361 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; amended September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial pages (38891) to (38892).

**§ 105.362. [Reserved].****Source**

The provisions of this § 105.362 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38892).

**§ 105.363. [Reserved].****Source**

The provisions of this § 105.363 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38892).

**§ 105.364. [Reserved].****Source**

The provisions of this § 105.364 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38892).

**§ 105.365. [Reserved].****Source**

The provisions of this § 105.365 adopted August 11, 1978, effective August 28, 1978, 8 Pa.B. 2229; reserved September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843. Immediately preceding text appears at serial page (38893).

**PERMITS****§ 105.371. Permits: content of application.**

In addition to the requirements of § 105.13 (relating to permit applications—information and fees), applications for commercial dredging permits shall contain the following information:

- (1) The delineation of areas to be dredged, with reference to river miles of distances from fixed reference points or sufficient courses and distances referenced to permanent shore points to allow a fix to be made on the boundary points of a dredging area in a lake.
- (2) Stream depths in the proposed dredging area if known or approximate estimated depths, if accurate measures are not available.
- (3) The equipment to be employed in the dredging operation and its capabilities.
- (4) The proposed rate of production.
- (5) The location of public and industrial water supply intakes.
- (6) A plan for the disposal of solid waste, dredge spoil and sewage from the dredging vessel.
- (7) Other information as the Department may require.

**Source**

The provisions of this § 105.371 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.372. Prior requisite approvals.**

Provided the other requirements of this subchapter are met, approval by the Department of dredging permit applications is conditioned upon the applicant's obtaining a permit/agreement under the act of July 31, 1970 (P. L. 699, No. 225) (71 P. S. § 468) (repealed), repealed by the act of December 3, 1970 (P. L. 834, No. 275) or an interest in land under section 15 of the act (32 P. S. § 693.15), where the bed of the regulated waters is owned by the Commonwealth.

**Source**

The provisions of this § 105.372 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**OPERATIONAL CRITERIA****§ 105.381. Location of dredging.**

- (a) Dredging may not occur within 500 feet of a bridge pier or abutment.
- (b) Dredging may not occur within 5000 feet above a public water supply intake unless the applicant can satisfactorily demonstrate to the Department that drinking water standards for turbidity will not be exceeded and no other adverse effects on the operations of a water user will occur. Water supplies within 5 miles downstream of the dredging operation shall be notified of proposed dredging or start up, or both, of operations. The applicant/permittee shall provide proof of the notification.
- (c) Dredging may not occur within a distance of the channel or island shore line at normal pool less than the depth of the dredging, but in no event, less than 125 feet.
- (d) Dredging may not occur in reaches of streams where water levels are controlled by dams if the water depth is less than 6 feet at normal pool.
- (e) Dredging may not occur in, encroach upon or cause siltation in areas of riffles or shallow pools whenever the areas are contributing to the sustenance of game fish or endangered species in a free-flowing reach of a stream. Game fish includes species and varieties defined as such by 30 Pa.C.S. § 102 (relating to definitions). Endangered species include those species so defined by the Fish Commission, under 30 Pa.C.S. § 102 or defined by 50 CFR 17.12 (relating to endangered and threatened plants). A free-flowing reach of a stream includes a reach, segment or area of a stream except where a pool has been created by a dam.

**Authority**

The provisions of this § 105.381 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1–691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101–679.601).

**Source**

The provisions of this § 105.381 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117724) to (117725).

**Notes of Decisions**

In remanding and ordering a new trial to determine whether a dredging company violated its permit by dredging too close to shore, the Court noted that the Department of Environmental Resources is authorized to impose conditions which preclude dredging within an established distance from the shore and that such conditions under statute and regulations, 71 P. S. § 510-8 and 25 Pa. Code § 150.381(c), impose a binding duty of care upon parties to a dredging contract. *Hawthorne v. Dravo Corp.* 460 A.2d 266 (Pa. Super. 1983).

**§ 105.382. Washing and classification of materials.**

Wash water from the classification process may not be returned to the stream, unless a permit in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) has been obtained.

**Source**

The provisions of this § 105.382 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended February 1, 1985, effective February 2, 1985, 15 Pa.B. 361. Immediately preceding text appears at serial page (82601).

**§ 105.383. Disposal of waste materials.**

(a) The permittee shall not throw, discharge or deposit or cause or permit to be thrown, discharged or deposited from or out of a ship, barge or other floating craft employed in the dredging operation any refuse matter, including oil and petroleum products.

(b) Bilge, ballast or wastewater pumped from barges shall not be discharged to the stream without acceptable removal of oils or toxic compounds in a manner approved by the Department.

(c) Discharge of dredged material into the regulated waters of this Commonwealth is subject to Subchapter J (relating to discharges of dredged or fill material).

(d) Dredge spoil and sludge deposits collected during the operation shall be deposited in a location and a manner approved by the Department.

(e) Litter, refuse and sanitary waste from dredging vessels shall be disposed of in a manner approved by the Department.

**Source**

The provisions of this § 105.383 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.384. Protection of stream users.**

(a) A dock or portage shall be constructed around the upstream face of the operation in order to facilitate navigation of small craft where the dredging operation will substantially obstruct the waterway.

(b) The permittee shall post signs 1000 feet upstream of where the dredge is operating and 500 feet from the downstream end of the dredging area warning users of the stream that dredging operations are in progress; the warnings shall be in large block printing, readable at a distance of 300 feet, and contain the warning, "DANGER, DREDGING 1000 FEET AHEAD" or "DANGER, DREDGING 500 FEET AHEAD."

**Source**

The provisions of this § 105.384 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.385. Reporting.**

The permittee shall submit to the Department an annual report indicating the amount of sand, gravel or other minerals dredged from the stream bed during the preceding calendar year.

**Source**

The provisions of this § 105.385 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter J. DISCHARGES OF DREDGED OR FILL MATERIAL****GENERAL PROVISIONS**

Sec.  
105.391. Scope.

**PERMITS**

105.401. Permit applications.

**CRITERIA FOR APPROVAL**

105.411. General criteria.

**OPERATION AND MAINTENANCE**

105.421. General.  
105.422. Use of heavy equipment.  
105.423. Removal of temporary fill.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.14 (relating to review of applications); 25 Pa. Code § 105.245 (relating to disposal of waste materials); and 25 Pa. Code § 105.383 (relating to disposal of waste materials).

**GENERAL PROVISIONS****§ 105.391. Scope.**

Except as provided in §§ 105.3 and 105.12 (relating to scope; and waiver of permit requirements), this subchapter applies to the discharge of dredged or fill material into the regulated waters of this Commonwealth.

**Source**

The provisions of this § 105.391 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**PERMITS****§ 105.401. Permit applications.**

In addition to the requirements of § 105.13 (relating to permit applications—information and fees) and other applicable requirements of this chapter, applications for discharges of dredged or fill material into the regulated waters of this Commonwealth shall contain the following information:

- (1) The location of a public water supply intake located within 1 mile upstream and 10 miles downstream.
- (2) The location of areas of shell-fish production.
- (3) The impact of the activity upon a threatened or endangered species as identified under the Endangered Species Act of 1973 (7 U.S.C.A. § 136; 16 U.S.C.A. §§ 460l-9, 460k-1, 668dd, 715i, 715a, 1362, 1371, 1372, 1402 and 1531—1543), and the critical habitat of the species.
- (4) The impact of the activity upon those species of aquatic life indigenous to the waterbody.
- (5) The amount of percentage of the discharge that will consist of toxic material regulated under section 6 of the Toxic Substances Control Act (15 U.S.C.A. § 2605) or hazardous materials as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C.A. §§ 6901—6986) in other than trace quantities.
- (6) Other information as the Department may require.

**Source**

The provisions of this § 105.401 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**CRITERIA FOR APPROVAL****§ 105.411. General criteria.**

The Department will not approve an application to discharge dredged or fill material into regulated waters of this Commonwealth, unless the applicant demonstrates to the Department a public benefit which outweighs the damage to the public natural resources, if one or more of the following is true:

- (1) The discharge is to a spawning area during spawning season.
- (2) The discharge would restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the waters unless the primary purpose of the fill is to impound waters.

(3) The discharge is into regulated waters of this Commonwealth, except wetlands, which are breeding, feeding or nesting areas for migratory water birds.

**Authority**

The provisions of this § 105.411 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1–693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.411 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial page (117728).

**OPERATION AND MAINTENANCE**

**§ 105.421. General.**

Discharges of dredged or fill material shall be properly maintained to prevent erosion and other types of pollution.

**Source**

The provisions of this § 105.421 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.422. Use of heavy equipment.**

Heavy equipment used in wetlands shall be placed on mats where practicable.

**Source**

The provisions of this § 105.422 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**§ 105.423. Removal of temporary fill.**

Temporary fill shall be completely removed.

**Source**

The provisions of this § 105.423 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter K. DISBURSEMENTS OF MONIES FROM THE DAMS AND ENCROACHMENTS FUND**

Sec.

105.431. General provisions.

105.432. Authorization for disbursement.

**§ 105.431. General provisions.**

(a) Fines collected under the penal provisions of the act and civil penalties collected under the act shall be paid into the treasury of the Commonwealth in a special fund known as the Dams and Encroachments Fund.

(b) Moneys paid into the Dams and Encroachments Fund may be disbursed at the discretion of the Department for use in the elimination of hazards to life, property and the environment resulting from unsafe dams, water obstructions and encroachments. The moneys shall be available for use by the Bureau of Dams and Waterway Management in addition to funds otherwise available to it.

(c) For purposes of this chapter, the full and normal range of activities of the Bureau will be considered to contribute to the elimination of hazards from unsafe dams, water obstructions and encroachments under subsection (b). Disbursement of moneys from the Dams and Encroachments Fund moneys may therefore be made for, but will not be limited to, the following purposes:

(1) Conducting investigations, tests and analyses as required to carry out the purposes of the act, including costs of entry; testing and sampling; and examining books, papers and records.

(2) Undertaking corrective action, repair work or removal to eliminate an actual or potentially dangerous or hazardous condition of a dam, water obstruction or encroachment as provided under section 14(c) of the act (32 P. S. § 693.14(c)).

(3) Purchasing contractual services and consultation from firms and individuals with relevant expertise in the field of safety of dams, water obstructions and encroachments.

(4) Purchasing materials, equipment, services and travel necessary for personnel training and provision of information and educational materials on the safety of dams, water obstructions and encroachments to schools, colleges, institutions and citizens.

(5) Covering extraordinary costs of litigation arising out of the enforcement of dam safety and encroachments laws of the Commonwealth, such as the printing of briefs and records, taking of depositions and expert witness fees.

**Authority**

The provisions of this § 105.431 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and

1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

**Source**

The provisions of this § 105.431 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (117729) to (117730).

**Cross References**

This section cited in 25 Pa. Code § 105.432 (relating to authorization for disbursement).

**§ 105.432. Authorization for disbursement.**

The Director of the Bureau of Dams and Waterway Management will authorize the use of monies disbursed from the Dams and Encroachments Fund consistent with the established policies and procedures of the Department. For disbursements from the fund not falling within the explicit categories established in § 105.431 (relating to general provisions), the Director of the Bureau of Dams and Waterway Management will submit a request to the Secretary of the Department requesting an authorization to disburse the funds for the project in question.

**Source**

The provisions of this § 105.432 adopted September 26, 1980, effective September 27, 1980, 10 Pa.B. 3843.

**Subchapter L. GENERAL PERMITS**

Sec.

- 105.441. Scope.
- 105.442. Authorization for general permits.
- 105.443. Nature of a general permit; substitution for individual applications and permits.
- 105.444. Contents of general permits.
- 105.445. Waiver of certain requirements.
- 105.446. Procedure for issuance.
- 105.447. Registration requirements.
- 105.448. Determination of applicability of a general permit.
- 105.449. Compliance with permit conditions, regulations and laws.

**Cross References**

This subchapter cited in 25 Pa. Code § 105.21a (relating to public notice).

**§ 105.441. Scope.**

This subchapter applies to the issuance of general permits by the Department under section 7(b)—(d) of the act (32 P. S. § 693.7(b)—(d)).

**Source**

The provisions of this § 105.441 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

**Cross References**

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code

Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

### § 105.442. Authorization for general permits.

(a) In accordance with this subchapter, the Department may issue general permits on a regional or Statewide basis for a category of dam, water obstruction or encroachment if the Department determines the following:

(1) The projects in the category are similar in nature.

(2) The projects in the category can be adequately regulated utilizing standardized specifications and conditions, including reference to specific criteria and requirements adopted by another Federal or State agency which adequately regulate the particular category of dam, water obstruction or encroachment.

(3) The projects which are in the category and meet the specifications and conditions will comply with the requirements for permit issuance in §§ 105.14—105.17 and 105.21 and the standards and requirements for design, construction, operation, maintenance and monitoring in this chapter.

(b) General permits issued under this subchapter may be issued on a Statewide basis or limited to specific watersheds, particular categories of streams or designated geographic regions.

(c) The Department will not issue a general permit for the following:

(1) A dam in size classifications A or B or hazard potential classifications 1 or 2, as defined in § 105.91 (relating to classification of dams or reservoirs).

(2) A dam used for storage of fluids or semifluids other than water the escape of which may result in air, water or land pollution or in danger to persons or property unless the impoundment created by the dam is otherwise adequately regulated by another program requiring individual permits issued by the Department or another Federal or State agency.

(3) A dam, water obstruction or encroachment which may present a substantial risk to life and property, requiring proof of financial responsibility under § 105.20 (relating to proof of financial responsibility).

#### Authority

The provisions of this § 105.442 amended under the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); section 7 of the act of June 14, 1923 (P. L. 704, No. 294) (32 P. S. § 597); sections 514, 1901-A, 1908-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 194, 510-1, 510-8, 510-17 and 510-20); and the Flood Plain Management Act (32 P. S. §§ 679.101—679.601).

#### Source

The provisions of this § 105.442 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9; amended October 11, 1991, effective October 12, 1991, 21 Pa.B. 4911. Immediately preceding text appears at serial pages (156661) to (156662).

**Cross References**

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

**§ 105.443. Nature of a general permit; substitution for individual applications and permits.**

(a) When the Department issues a general permit for a specified category of dam, water obstruction or encroachment on either a regional or Statewide basis, persons who intend to construct, operate, maintain, modify, enlarge or abandon a dam, water obstruction or encroachment in accordance with the specifications and conditions of the general permit may do so without filing an individual application for, and first obtaining, an individual permit.

(b) Use of an applicable general permit shall satisfy the permit requirements set forth in § 105.11 (relating to permit requirements), so long as:

(1) Activities are conducted in accordance with the specifications and conditions of the applicable general permit.

(2) The owner of the dam, water obstruction or encroachment complies with the registration requirements set forth in the general permits, as authorized by § 105.448 (relating to determination of applicability of a general permit).

**Source**

The provisions of this § 105.443 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

**Cross References**

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; gen-

eral permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

#### § 105.444. Contents of general permits.

Each general permit issued by the Department will include, but not be limited to, the following contents:

- (1) A concise description of the category of dam, water obstruction or encroachment covered by the general permit, including exceptions to that category.
- (2) A specification of the watersheds, streams or geographic areas where the general permit is effective.
- (3) A set of standardized specifications or plans for the particular category of dam, water obstruction or encroachment or a reference to specific criteria and requirements adopted by another Federal or State agency which adequately regulates the particular category of dam, water obstruction or encroachment.
- (4) A set of conditions governing the construction, operation, maintenance, inspection and monitoring of the projects covered by the general permit as are necessary to assure compliance with the act and this chapter and with other laws administered by the Department, the Fish Commission and a river basin commission created by interstate compact.
- (5) A specification of registration requirements, if any, established under § 105.447 (relating to registration requirements).

#### Source

The provisions of this § 105.444 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

#### Cross References

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

#### § 105.445. Waiver of certain requirements.

In issuing a general permit, the Department may waive the procedural requirements of any or all of the following sections of this chapter as applied to a particular category of dams, water obstructions or encroachments covered by the general permit:

- (1) Section 105.41 (relating to notices and reports).
- (2) Section 105.42 (relating to acknowledgment of conditions).
- (3) Section 105.53 (relating to inspections by owners and inspection reports).
- (4) Section 105.101 (relating to notices and reports).
- (5) Section 105.102(b) (relating to personnel and supervision).
- (6) Section 105.107 (relating to completion certificate and final plans).
- (7) Section 105.111 (relating to commencement of water storage).

#### Source

The provisions of this § 105.445 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

#### Cross References

This section cited in 25 Pa. Code § 105.449 (relating to compliance with permit conditions, regulations and laws); 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

### § 105.446. Procedure for issuance.

(a) At least 60 days prior to issuance of a general permit, the Department will:

(1) Publish notice in the *Pennsylvania Bulletin* of intent to issue a general permit, including the text of the proposed general permit and locations for obtaining standardized plans.

(2) Provide written notice of the proposed general permit to the United States Army Corps of Engineers; the United States Coast Guard; the United States Fish and Wildlife Service; the United States Environmental Protection Agency; the Fish Commission; the Game Commission; applicable river basin commissions created by interstate compact; county agencies holding delegations under § 105.4 (relating to delegations to local agencies) and other interested Federal, State or interstate agencies.

(b) An opportunity shall be provided for interested members of the public, Federal and State agencies to provide written comments on a proposed general permit.

(c) The Department may, at its discretion, hold a public hearing on a proposed general permit for the purposes of gathering information and comments.

(d) General permits issued by the Department will be published in the *Pennsylvania Bulletin* at least 30 days prior to the effective date of the permits, as required by section 7(d) of the Dam Safety and Encroachments Act (32 P. S. § 693.7(d)).

#### Authority

The provisions of this § 105.446 amended under section 5 of the Dam Safety and Encroachments Act (32 P. S. § 693.5).

#### Source

The provisions of this § 105.446 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9; amended February 18, 1983, effective February 19, 1983, 13 Pa.B. 781. Immediately preceding text appears at serial pages (59051) and (59052).

#### Cross References

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

### § 105.447. Registration requirements.

(a) The Department will require the registration of a project constructed, operated, maintained, modified or enlarged under a general permit, within a specified time limit.

(b) Registration requirements and time limits, if any, shall be set forth in the general permit governing each category of dam, water obstruction or encroachment.

(c) Registration statements shall set forth:

(1) The name and address of the person responsible for the project.

(2) The location of the project.

(3) The name or number of the general permit being utilized for the project.

(d) For a project requiring registration under this section, an amended registration shall be filed if there is a change of ownership of the dam, water obstruction or encroachment.

**Source**

The provisions of this § 105.447 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

**Cross References**

This section cited in 25 Pa. Code § 105.444 (relating to contents of general permits); 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

**§ 105.448. Determination of applicability of a general permit.**

(a) A person who desires to utilize a general permit issued under this subchapter, but is uncertain as to the potential application of the general permit to a particular proposed dam, water obstruction or encroachment, should consult with the Department. The Department may issue a determination as to whether the general permit applies to the proposed dam, water obstruction or encroachment.

(b) A request for a determination of the applicability of a general permit may not be considered a permit application for purposes of this chapter, and no application fee will be charged.

**Source**

The provisions of this § 105.448 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

**Cross References**

This section cited in 25 Pa. Code § 105.443 (relating to nature of a general permit; substitution for individual applications and permits); 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general permit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

**§ 105.449. Compliance with permit conditions, regulations and laws.**

A person who constructs, operates, maintains, modifies, enlarges or abandons a dam, water obstruction or encroachment under a general permit shall comply with the terms and conditions of the general permit, with this chapter, except as expressly waived under § 105.445 (relating to waiver of certain requirements), and with the Flood Plain Management Act (32 P. S. §§ 679.101—679.601), and other applicable laws, to the same extent as if the dam, water obstruction or encroachment were covered by an individual permit.

**Source**

The provisions of this § 105.449 adopted January 2, 1981, effective January 3, 1981, 11 Pa.B. 9.

**Cross References**

This section cited in 25 Pa. Code Chapter 105 Appendix A (relating to fish enhancement structure; general permit BDWW-GP-1); 25 Pa. Code Chapter 105 Appendix B (relating to private recreational docks; general permit BDWW-GP-2); 25 Pa. Code Chapter 105 Appendix C (relating to bank rehabilitation and protection; general permit BDWW-GP-3); 25 Pa. Code Chapter 105 Appendix D (relating to Bureau of Dams and Waterway Management; general permit BDWM-GP-4); 25 Pa. Code Chapter 105 Appendix E (relating to utility line stream crossings; general permit BDWM-GP-5); 25 Pa. Code Chapter 105 Appendix F (relating to agricultural crossings and ramps; general permit BDWM-GP-6); 25 Pa. Code Chapter 105 Appendix G (relating to minor road crossings; general per-

mit BDWM-GP-7); 25 Pa. Code Chapter 105 Appendix H (relating to temporary road crossings; general permit BDWM-GP-8); 25 Pa. Code Chapter 105 Appendix I (relating to agricultural activities; general permit BDWM-GP-9); 25 Pa. Code Chapter 105 Appendix J (relating to abandoned mine reclamation; general permit BDWW-GP-10); and 25 Pa. Code Chapter 105 Appendix O (relating to private residential construction in wetlands; general permit BDWW-GP-15).

### Subchapter M. STATEMENTS OF POLICY

#### WETLANDS

Sec.

105.451. Identification and delineation of wetlands—statement of policy.

105.452. Status of prior converted cropland—statement of policy.

#### WETLANDS

### § 105.451. Identification and delineation of wetlands—statement of policy.

(a) This section sets forth the policy of the Department as to the methodology to be used for the identification and delineation of wetlands.

(b) The use of some delineation method is necessary in order to administer, implement, enforce and determine compliance with the act, The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.31), the Pennsylvania Sewage Facilities Act (35 P. S. §§ 750.1—750.20), the Oil and Gas Act (58 P. S. §§ 601.101—601.605) and other applicable statutes administered by the Department and regulations promulgated under these statutes.

(c) The Department adopts and incorporates by reference the 1987 *Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1)* along with the guidance provided by the United States Army Corps of Engineers, Major General Arthur E. Williams' memorandum dated 6 March 1992, *Clarification and Interpretation of the 1987 Manual* and any subsequent changes as the methodology to be used for identifying and delineating wetlands in this Commonwealth. The 1987 *Corps Wetland Delineation Manual*, Publication No. ADA 176734 is available from the National Technical Information Service (NTIS), Springfield, VA 21161, or telephone: (703) 487-4650. Copies of the Supplemental Guidance issued by the Corps concerning use of the 1987 Manual, (that is, the October 7, 1991, Questions and Answers, and the March 6, 1992, Clarification and Interpretation Memorandum) as well as the Administration's Wetlands Plan of August 24, 1993, may be obtained by contacting the regulatory branch of a local Corps District, or the EPA Wetlands Hotline at (800) 832-7828. For more information, con-

tact Pennsylvania Department of Environmental Protection, Bureau of Dams, Waterways and Wetlands, Post Office Box 8554, Harrisburg, Pennsylvania 17105-8554, telephone (717) 787-6827.

#### Source

The provisions of this § 105.451 adopted October 27, 1989, effective December 27, 1989, 19 Pa.B. 4612; amended February 2, 1996, effective February 3, 1996, 26 Pa.B. 494. Immediately preceding text appears at serial pages (207778) to (207781).

#### Cross References

This section cited in 25 Pa. Code § 96.3 (relating to water quality protection requirements); and 25 Pa. Code § 105.13 (relating to permit applications—information and fees).

### § 105.452. Status of prior converted cropland—statement of policy.

(a) This section sets forth the policy of the Department as to the status of prior converted cropland in this Commonwealth.

(b) The use of some procedure for determining wetlands is necessary in order to administer, implement, enforce and determine compliance with the act, The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.31), the Pennsylvania Sewage Facilities Act (35 P. S. §§ 750.1—750.20), the Oil and Gas Act (58 P. S. §§ 601.101—601.605) and other applicable statutes administered by the Department and regulations promulgated under these statutes.

(c) Naturally occurring events may result in either creation or alteration of wetlands. It is necessary to determine whether alterations to an area have resulted in changes that are now “normal circumstances” of the particular area. The Department recognizes “prior converted cropland,” as defined in the *National Food Security Act Manual* (180-V-NFSAM, Third Edition, March 1994), as “normal circumstances” as the term is used in the definition of wetlands in § 105.1 (relating to definitions). These prior converted croplands are not regulated as wetlands under the Commonwealth’s Wetland Protection Program contained in this chapter. Prior converted cropland is defined in the *National Food Security Act Manual*, as wetlands that were drained, dredged, filled, leveled or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, and have not been abandoned, for the purpose of, or to have the effect of making the production of an agricultural commodity possible, and an agricultural commodity was planted or produced at least once prior to December 23, 1985.

(1) Abandonment is the cessation of cropping, forage production or management on prior converted cropland for 5 consecutive years, so that:

- (i) Wetland criteria are met.
- (ii) The area has not been enrolled in a conservation set-aside program.

(iii) The area was not enrolled in a State or Federal wetland restoration program other than the Wetland Reserve Program.

(2) Prior converted cropland may also be considered abandoned if the landowner provides written intent to abandon the area and wetland criteria are met.

(d) This policy change does not affect the exemption for plowing, cultivating, seeding and harvesting for the production of food, fiber and forest products or the waiver for maintenance of field drainage systems found at § 105.12(a)(7) and (8) (relating to waiver of permit requirements).

**Source**

The provisions of this § 105.452 adopted February 2, 1996, effective February 3, 1996, 26 Pa.B. 494.

**APPENDIX A  
FISH ENHANCEMENT STRUCTURES;  
GENERAL PERMIT BDWW-GP-1**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for the regulations governing this permit.

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**INSTRUCTIONS FOR USING THE GENERAL PERMIT  
BDWW-GP-1**

**Fish Habitat Enhancement Structures**

**Prior to Registration to Use:**

1. Carefully review the definitions and requirements of the General Permit (Part One and Part Two) to determine if your project can qualify for authorization under this General Permit. Refer to Part One, Section B regarding area restrictions and Part One, Section D regarding criteria. If your project cannot be authorized under the General Permit, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office as listed on Exhibit B.

2. Contact the Pennsylvania Fish and Boat Commission, Division of Environmental Services or Division of Property Services at address and telephone number shown on Exhibit A to select a suitable structure and obtain Pennsylvania Fish and Boat Commission approval on Exhibit D. For the Cooperative Adopt-A-Stream Program, the Pennsylvania Fish and Boat Commission will also register the use of the General Permit on behalf of the project sponsor.

3. Locate your project on a United States Geological Survey (U.S.G.S.) 7 1/2 Minute Quadrangle Map (Commonly called "topographic maps," U.S.G.S. Quadarangle may be available from local merchants dealing in books, hunting supplies and camping equipment.) and prepare a project Location Map, utilizing a photocopy of the U.S.G.S. Quadrangle Map.

4. Complete the top portion of the attached Supplement No. 1 (Pennsylvania Natural Diversity Inventory Form). You will not be authorized to use the General Permit until Supplement No. 1 has been processed to check for potential impacts to rare and endangered species. Therefore, to avoid possible project delays or unnecessary design costs, you are advised to submit Supplement No. 1 for processing prior to General Permit registration. To do so, follow the written instructions on the Supplement No. 1 form. The Department will complete the bottom portion of the form and return it to you, generally within a period of 2 weeks. You must have copies of Supplement No. 1 (whether processed or not) for submission as attachments when you register to use the General Permit.

5. For any earthmoving activity (For the definition of earthmoving activity, see Part Two, Section C.) associated with your project, prepare an Erosion and Sedimentation Control Plan which must be reviewed and determined satisfactory by the County Conservation District in the county where your project is located. The required Erosion and Sedimentation Control Plan must be prepared and sub-

mitted to the Conservation District for review prior to or concurrent with your registration to use the General Permit.

**The Registration Procedure:**

6. Fill in all information on the Notification to Use form (Exhibit D) and make multiple copies. Send one copy each to the municipality and the county in which the project is located.

7. To register use of the General Permit, prepare a complete registration “package” consisting of:

- Two Copies of Notification to Use form (Exhibit D)
- Two copies of the Location Map
- Two copies of the Supplement No. 1 form

Send these items to either:

—The County Conservation District for projects located in all counties where there is a delegation agreement (see Exhibit C).

—OR—

—The Soils and Waterways Section having responsibility for the counties where there is no delegation agreement with the County Conservation District (see Exhibit B).

8. If you are also applying for an individual Water Obstruction and Encroachment Permit to authorize related work, you may register to use the General Permit in conjunction with your individual permit application. See Part Two, Section A, Item 2.

**Before and During Construction:**

9. Do not begin work until:

- a. You have received an acknowledgement from the Soils and Waterways Section or County Conservation District that your Exhibit D notification has been received and registered.
- b. Your Erosion and Sedimentation Control Plan has been reviewed and determined to be satisfactory by the County Conservation District.
- c. You have notified the Pennsylvania Fish and Boat Commission and the County Conservation District 10 days prior to start of construction (see Part Two, Section D).
- d. You have obtained any other Federal, State or local permits which may be required.
- e. You have complied with any other applicable pre-construction requirements as listed in Part Two, Section E.
- f. You have provided written notifications to the municipalities and county where the projects are located prior to the start of construction.

10. During construction of your project, you are responsible for adhering to all terms and conditions of the General Permit, including your approved Erosion and Sedimentation Control Plan and all applicable design and construction criteria in Part One, Section D.

### PART ONE

**A. General Description and Fees**—The Department of Environmental Resources hereby authorizes, by General Permit, subject to the terms and criteria set forth, the installation, operation and maintenance of fish habitat enhancement structures in the regulated waters of this Commonwealth. There is no registration fee required for a project authorized under this General Permit.

**B. Sites and Conditions Where this General Permit Does Not Apply**—This General Permit does not apply and is not valid in the following situations. Where the General Permit is not applicable, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office (see Exhibit B).

1. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places. This information is available from the Pennsylvania Historical and Museum Commission, Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-3362.
2. Sites identified in the latest published version of the National Registry of Natural Landmarks.
3. Construction activities in stocked trout streams from March 1 through June 15, in wild trout streams from October 1 through December 31, and in Lake Erie tributaries from March 1 through June 15 and from September 1 through December 31, unless approval is obtained from the Pennsylvania Fish and Boat Commission's Division of Environmental Services (see Exhibit A). Stocked and wild trout stream locations are compiled by the Commission's Division of Fisheries Management (see Exhibit A).
4. Wetlands.
5. Projects located where there would be an impact on species of special concern listed under the Endangered Species Act of 1973, the Wild Resources Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Records regarding species of special concern are maintained in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). To verify that there will be no such impacts for a specific project, the Department requires submission of the attachment Supplement No. 1 form.
6. Areas in or within 100 feet of a watercourse designated wild in the National or State Scenic Rivers system in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act. For

details on scenic river classifications, contact the DER Pennsylvania Scenic Rivers Program, P. O. Box 8475, Harrisburg, PA 17105-8475, telephone (717) 787-2316.

**C. Definitions Applicable to this General Permit**—The following words and terms, when used in this General Permit, have the following meanings:

*Fish Habitat Enhancement Structures*—Structures consisting of deflectors, low flow channel structures, channel blocks, mud sills, boulders, felled shore-line trees, special tire structures, brush structures, rubble reefs, half-log structures, elevated boulder structures and spawning/nursery structures placed in streams, lakes, ponds or reservoirs as developed and approved by the Pennsylvania Fish and Boat Commission.

*Reservoir*—A natural or artificial basin which contains or will contain the water or other fluid or semifluid impounded by a dam.

**D. Project Design and Construction Criteria**

1. *Pennsylvania Fish and Boat Commission Approval*—The owner must contact the Pennsylvania Fish and Boat Commission's Division of Property Services or Division of Environmental Services (see Exhibit A) to select a Fish Habitat Enhancement Structure suitable for his individual situation and obtain the required approval of the Pennsylvania Fish and Boat Commission to install the structure as required on the Notification to Use form (Exhibit D).

2. Fish Habitat Enhancement Structures shall be designed and constructed to preclude interference with normal fish migration.

3. Stream flow will not be constructed to a degree greater than the most narrow natural point of the stream in the immediate vicinity of the work within 500 feet upstream or downstream of the project site.

4. Fish Habitat Enhancement Structures located in stream channels shall not extend more than 3 feet above the normal stream bed. Tire structures are prohibited in stream channels.

5. Any archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, P. O. Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-2891.

6. Each Fish Habitat Enhancement Structure shall be constructed in such a way so that it does not hinder recreational navigation.

7. Excess fill or excavated and dredged material from the construction of a Fish Habitat Enhancement Structure shall be deposited outside of the adjacent floodplain, wetlands and other regulated waters of this Commonwealth and stabilized immediately in accordance with the Erosion and Sedimentation Control Plan. Waste materials, scrap or excess construction materials shall be collected, stored and disposed of in accordance with the Solid Waste Management Act and related rules and regulations.

8. Fish Habitat Enhancement Structures shall be maintained in a safe and functional condition. This includes the removal of debris. Where maintenance requires excavation or dredging, an Erosion and Sedimentation Control Plan must be reviewed and determined adequate by the County Conservation District in which the activity is located. Disposal of dredged material shall be in accordance with Item 7.

9. Only a clean, nonpolluting, rock material shall be used as fill material in order to minimize excessive turbidity by leaching of fines as well as to preclude the entrance of potentially polluted materials to the watercourse by natural runoff.

10. Slag is not authorized for use under this General Permit unless it qualifies as a co-product which is suitable for the specific use.

11. Construction of a Fish Habitat Enhancement Structure shall take place during periods coinciding with low stream flows.

12. Construction and other activities authorized by this General Permit shall be performed in a manner that minimizes use of equipment within the stream channel or body of water.

13. To the greatest extent possible, the project shall be designed and constructed in a manner which will (a) prevent permanent or long-term adverse changes in water quality, (b) minimize alterations in natural aquatic habitat and (c) maintain natural stream flow velocities and mixing patterns.

**E. Cooperative Adopt-A-Stream Program—Special Procedures**—The Pennsylvania Fish and Boat Commission is authorized to register the use of this General Permit on behalf of sponsors and landowners who participate in the Commission's Cooperative Adopt-A-Stream Program. To register use of the General Permit for Adopt-A-Stream projects, the Commission shall utilize a modified version of Exhibit D which has been approved by the Department and the U. S. Army Corps of Engineers. The standard attachments to Exhibit D, as specified in Part Two, Section A, are not required to register the use of this General Permit for a Cooperative Adopt-A-Stream Project.

**F. Authority and Continuing Authorization**—Authorization of this General Permit is under section 7 of the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27) and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits). This General Permit shall authorize the continued operation and maintenance of fish habitat enhancement structures previously authorized by General Permit BDWW-GP-1 (Fish Enhancement Structures) issued on July 25, 1981, and reauthorized on August 29, 1987 and October 7, 1989.

**EXHIBIT D**

FOR DEPT. USE ONLY

**NOTIFICATION TO USE  
BDWW-GP-1**

**Fish Habitat Enhancement Structures**

ACKNOWLEDGED:
DATE _____
GP _____

1. I/We, \_\_\_\_\_  
(owner name(s))

hereby notify the Department of Environmental Resources of our intent to install

\_\_\_\_\_ (description of fish habitat enhancement structure)  
in accordance with the conditions of this General Permit at a point \_\_\_\_\_

\_\_\_\_\_ (describe location)  
on \_\_\_\_\_  
(name of stream or body of water)

in \_\_\_\_\_, \_\_\_\_\_  
(municipality) (county)

2. I/We have attached a LOCATION MAP (similar to that shown on Drawing No. 1 indicating where the fish habitat enhancement structure will be installed) and a copy of SUPPLEMENT NO. 1.

3. I/We have enclosed duplicate copies of EXHIBIT D, the LOCATION MAP and SUPPLEMENT NO. 1.

4. I/We certify that copies of this notification were sent this day \_\_\_\_\_ (date)  
to \_\_\_\_\_, and \_\_\_\_\_  
(municipality) (County-Commissioner's Office)

5. I/We certify that an EROSION AND SEDIMENTATION CONTROL PLAN for this project has been submitted for review to the \_\_\_\_\_ County Conservation District on \_\_\_\_\_ (date).

Signed by: _____ (print name)	_____ (owner address)
_____ (owner signature)	_____ (city/state/zip code)
_____ (title, if applicable)	_____ (owner telephone number)

6. I/We hereby notify the Department also of our intention to install a temporary road crossing in accordance with the terms of BDWW-GP-8, Temporary Road Crossings, during the installation of the fish habitat enhancement structure (if applicable).

Signed: \_\_\_\_\_

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Approval—The Pennsylvania Fish and Boat Commission hereby approves the installation of the aforementioned fish habitat enhancement structure in this individual situation.

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(Signature)

---

(Date)

Send to address on Exhibit B or delegated Conservation District on Exhibit C

## PART TWO

### A. Registration of Proposed Use of General Permits

#### 1. Standard Procedure

Prior to construction, the owner shall submit the following items to the DER Soils and Waterways Section in the appropriate Regional Office or the delegated County Conservation District where the project is located (see Exhibits B and C).

- (a) Two copies of the Notification to Use form (Exhibit D), one copy with original signatures.
- (b) Two copies of a location map (see Drawing No. 1).
- (c) Two copies of the Supplement No. 1 form.
- (d) Two copies of any other items required in the Instructions and Part One (if applicable).

The owner is required to send additional copies of Exhibit D to the municipality and the County Board of Commissioners where the project is located. Also, as part of the registration, the owner shall certify that an Erosion and Sedimentation Control Plan has been submitted for review to the County Conservation District in which the work will be performed. The owner is not authorized to use the General Permit until he has notified the DER Soils and Waterways Section of the appropriate Regional Office or the appropriate delegated County Conservation District and received an acknowledgement of that notification. The Department's acknowledgement serves as registration to use this General Permit. The owner may not begin work until all preconstruction requirements of this General Permit have been completed.

Registration for the use of this General Permit must be sent to the County Conservation District in counties where the District has a delegation agreement with the Department of Environmental Resources. To determine whether this alternate registration procedure currently applies for your location, refer to Exhibit C and/or contact the appropriate DER Soils and Waterways Section or County Conservation District.

#### 2. In Conjunction with a Water Obstruction and Encroachment Permit Application.

When an activity or structure authorized by the General Permit is an integral part of a larger project which requires an individual Water Obstruction and Encroachment permit, intent to use the General Permit may be registered by

attaching copies of the Notification to Use form (Exhibit D) to the individual permit application, and clearly identifying, in the permit application narrative and/or on site plans, any structure or activity which will be constructed in accordance with the terms and conditions of the General Permit. The Department's acknowledgement of the General Permit registration will be included in the individual permit, and upon issuance of the permit the owner may begin work on the structure or activity authorized by the General Permit. Where applicable, this registration procedure is preferred and recommended by the Department, because written authorization for a project can be combined into one action and the associated documentation can be maintained under a single file number.

3. In Conjunction with an Enforcement Action:

The General Permit may also be used, at the discretion of the Department, in conjunction with an enforcement action or settlement of violations, to register regulated activities conducted without prior permit or authorization.

**B. Denial of Authorization**—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use a General Permit for any project which the Department determines to have a substantial risk to life, health, property or the environment, or otherwise could not be adequately regulated by the provisions of this General Permit.

**C. Standard Definitions for General Permits**—The terms as used in this General Permit shall have the following meanings:

*Body of Water*—Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Department*—The Department of Environmental Resources.

*Earthmoving Activity*—Any construction or other activity which disturbs the surface of the land including, but not limited to, excavations, embankments, land development, subdivision development, mineral extraction and the moving, depositing or storing of soil, rock or earth. This includes any excavation or fill within a stream channel.

*Erosion and Sedimentation Control Plan*—A plan which is designed to minimize accelerated erosion and sedimentation consistent with the requirements of 25 Pa. Code Chapter 102.

*Floodway*—The channel of the watercourse and portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by the Federal Emergency Management Administration (FEMA). In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

*Install*—To construct, deposit, place, lay or set in place.

*Owner*—A person who owns, controls, operates, maintains, or manages a dam or reservoir, water obstruction or encroachment.

*Person*—A natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee, and any department, board, commission or authority of the Commonwealth.

*Political Subdivision*—A county, city, borough, incorporated town, township, school district, authority or other governmental unit or a combination thereof acting jointly.

*Regulated Waters of this Commonwealth*—Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Scenic Rivers*—Areas in or within 100 feet of a watercourse or body of water designated a component of the Pennsylvania Scenic Rivers System in accordance with the Pennsylvania Scenic Rivers Act (P. L. 1277, Act No. 283 as amended by Act 110, May 7, 1982), or which are 1-A candidate rivers listed in the Pennsylvania Scenic Rivers Inventory.

*Stocked Trout Stream*—A stream classified as approved trout waters by the Pennsylvania Fish and Boat Commission. For current designations of stocked trout streams, contact the Division of Fisheries Management (see Exhibit A).

*Submerged Lands of this Commonwealth*—Waters and permanently or periodically inundated lands owned by the Commonwealth, including lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*Watercourse*—A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Wild Trout Stream*—A stream classified as supporting naturally reproducing trout populations by the Pennsylvania Fish and Boat Commission. For current designations of wild trout streams, contact the Division of Fisheries Management (see Exhibit A).

#### **D. Preconstruction Requirements for All Projects**

1. *Other Permits*—Nothing in this General Permit relieves the owner of the obligation of complying with all Federal, Interstate Compact, State and local laws, regulations and standards for the construction, operation or maintenance of the project or activity. The project owner is advised that written authorization from the U. S. Army Corps of Engineers may be required for compliance with Section 404 of the Clean Water Act.

2. *Erosion and Sedimentation Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to construction, an Erosion and Sedimentation Control Plan must be reviewed and determined adequate by the County Conservation District in which the activities are

proposed and implemented prior to, during and after construction. The County Conservation District shall be notified 10 days prior to the start of construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sedimentation Control Plan shall be available at the site.

3. *Pennsylvania Fish and Boat Commission Notification*—The owners shall notify the Pennsylvania Fish and Boat Commission's Regional Field Office Supervisor (see Exhibit A) responsible for the County where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission.

4. *Notification to Operators of Public Water Facilities*—Owners will investigate for drinking water intakes or reservoirs for public water supplies and permitted public bathing beaches within 5 miles downstream of the site of the project. Written notice shall be given at least 10 days prior to construction to the Department and to operators of any such intakes, beaches or reservoirs. This notification shall include expected starting and completion dates for the construction activities. Owners must notify the Department and operators immediately and no longer than 1 hour after the occurrence at the site which results in the release of suspended solids and turbidity to the stream. Public drinking water sources are listed by the DER Bureau of Water Supply and Community Health, and this information is available from each DER Regional Office.

**E. Other Preconstruction Requirements Where Applicable**

1. *Submerged Lands of this Commonwealth*—This General Permit shall not be effective to authorize any project over, across or occupying submerged lands of this Commonwealth until the owner has obtained a license from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of the Administrative Code of 1929 (71 P. S. § 194), or other applicable laws. Upon receipt of notification from the owner, the Department will review the project to determine if its location is over, across or occupies submerged lands of the Commonwealth. If applicable, the Department will prepare a Submerged Lands License Agreement and forward same to the owner for execution prior to acknowledgement of registration to use the General Permit. No annual charge is required for facilities constructed, owned or operated by a Political Subdivision of the Commonwealth.

2. *Utilization of General Permit BDWW-GP-8, Temporary Road Crossings*—Temporary road crossings of streams and causeways that are necessary for equipment to move back and forth across a stream during construction of a project are authorized by, and must be constructed in accordance with BDWW-GP-8. The owners shall indicate utilization of BDWW-GP-8 on Exhibit D in the space provided. Owners constructing temporary road crossings

in those areas excluded from the application of GP-8 must apply for an individual Water Obstruction and Encroachment Permit for those road crossings.

3. *Use of Explosives*—Prior to the use of explosives in a watercourse or body of water, the permittee shall secure a written permit from the Pennsylvania Fish and Boat Commission, under the Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Division of Environmental Services (see Exhibit A).

**F. Standard Provisions of the General Permit**

1. *Effective Time Period*—This General Permit will remain in effect indefinitely unless specifically modified, suspended or revised by the Department.

2. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

3. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed local, State, Federal or Federally licensed project, and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States or the Commonwealth of Pennsylvania or its Political Subdivisions in the public interest.

4. *Department Inspection*—As a condition of use of this General Permit, and of the owner's authority to conduct the activities authorized by this General Permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and criteria of the General Permit. This General Permit condition is referenced in accordance with Section 16 of the Dam Safety and Encroachments Act, 32 P. S. § 693.16, and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

5. *Activities Not in Accordance with the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or criteria of this General Permit or of the Chapter 105 Rules and Regulations, the Department may take such actions, legal or administrative, that it may deem to be appropriate.

6. *Structure Removal*—The owners shall remove all or any portion of this project upon written notification to the owner by the Department in the event

the project is causing an adverse impact on public health, safety or the environment, or in any other manner violates the conditions of this General Permit or Chapter 105 Rules and Regulations.

7. *Property Rights*—This General Permit does not authorize trespassing on private property nor convey any property rights, either in real estate or material, or in any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

8. *Water Quality Certification*—The issuance of this General Permit also constitutes approval of a Water Quality Certification under section 401 of the Federal Clean Water Act (33 U.S.C.A. § 1341).

9. *Other Approvals*—The owners shall secure all other approvals that may be necessary under other Federal, State or local laws or regulations.

10. *Change of Ownership*—If there is a change in ownership of a structure installed in accordance with this General Permit, the new owner is required to register the structure with the Department in accordance with Part Two, Section A, of this General Permit. The new owner shall submit one copy of Exhibit D indicating “change of ownership” and one copy of a location map. Additional items required under Part Two, Section A, are not applicable if there are no proposed construction activities.

11. *Signature*—The Notification to Use form for registration to use the General Permit shall be signed by the property owner; the president, vice president or other responsible official of a Corporation; or the chief official for a Government Agency/Political Subdivision. An engineering consultant, contractor or similar agent is not authorized to sign the General Permit registration form on behalf of the owner.

#### EXHIBIT A

##### Offices of the Pennsylvania Fish and Boat Commission

*Headquarters Address*

*County Responsibility*

##### *Northwest Region*

Regional Supervisor  
P. O. Box 349  
1281 Otter Street  
Franklin, PA 16323  
(814) 437-5774

Butler, Clarion, Crawford, Erie, Forest,  
Lawrence, Mercer, Venango and Warren

*Headquarters Address**County Responsibility**Southwest Region*

Regional Supervisor R. D. 2, Box 39 Somerset, PA 15501-9311 (814) 445-8974	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
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*Northcentral Region*

Regional Supervisor Box 187 (Fishing Creek Road) Lamar, PA 16848 (717) 726-6056	Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Potter, Snyder, Tioga and Union
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*Southcentral Region*

Regional Supervisor 1704 Pine Road Newville, PA 17241 (717) 486-7087	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry and York
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*Southeast Region*

Regional Supervisor Box 8 Elm, PA 17521 (717) 626-0228	Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill
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*Northeast Region*

Regional Supervisor Box 88 Sweet Valley, PA 18656 (717) 477-5717	Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Sullivan, Susquehanna, Wayne and Wyoming
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*Division of Environmental Services*

450 Robinson Lane, Bellefonte, PA 16823-9620  
(814) 359-5145

*Division of Property Services*

450 Robinson Lane, Bellefonte, PA 16823-9620  
(814) 359-5149

*Division of Fisheries Management*

450 Robinson Lane, Bellefonte, PA 16823-9620  
(814) 359-5110

105-138

**EXHIBIT B****Offices of the Department of Environmental Resources**

<i>Soils and Waterways Section</i>	<i>County Responsibility</i>
Southcentral Regional Office Room 147, One Ararat Boulevard Harrisburg, PA 17110 (717) 541-7901	Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Regional Office Suite 6010, Lee Park 555 North Lane Conshohocken, PA 19428 (610) 832-6130	Bucks, Chester, Delaware, Montgomery and Philadelphia
Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 (412) 442-4000	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
Northwest Regional Office 190 Adams Road Jamestown, PA 16134 (412) 932-3162	Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren
Northeast Regional Office Cross Valley Centre, Suite 203 667 North River Street Plains, PA 18705-1099 (717) 826-5485	Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming
Northcentral Regional Office 200 Pine Street Williamsport, PA 17701 (717) 327-3574	Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union

*Note:* Registration for the use of this General Permit must be sent to the County Conservation District in some counties where the district has a delegation agreement with the Department of Environmental Resources. To determine whether this alternate registration procedure applies for your location, refer to Exhibit C and/or contact the appropriate Soils and Waterways Section or County Conservation District.

**EXHIBIT C**  
**County Conservation Districts**

<i>Conservation District</i>	<i>Phone No.</i>	<i>Conservation District</i>	<i>Phone No.</i>
*Adams County	717-334-0636	Juniata County	717-436-6919
Allegheny County	412-921-1999	Lackawanna County	717-587-2607
Armstrong County	412-548-3425/3428	Lancaster County	717-299-5361
Beaver County	412-774-7090	Lawrence County	412-652-4512
Bedford County	814-623-6706/8099	Lebanon County	717-272-3377
*Berks County	215-372-4657	Lehigh County	610-820-3398
Blair County	814-696-0877	Luzerne County	717-825-1844/5
*Bradford County	717-265-5539	Lycoming County	717-326-5858
*Bucks County	610-345-7577	McKean County	814-368-9960
*Butler County	412-284-5270/5271	*Mercer County	412-662-2242
*Cambria County	814-472-5440	*Mifflin County	717-248-4695
	Ext 588		
Cameron County	814-486-3350	*Monroe County	717-629-3060
Carbon County	610-377-4894	Montgomery County	610-489-4506
*Centre County	814-355-6817/6818	*Montour County	717-271-1140
Chester County	610-696-5126	Northampton County	610-746-1971
Clarion County	814-226-4070	Northumberland	717-988-4224
		County	
Clearfield County	814-765-2629	Perry County	717-582-8988
*Clinton County	717-726-3798	*Pike County	717-226-8220
Columbia County	717-784-1310	Potter County	814-274-8411
*Crawford County	814-724-1793	Schuylkill County	717-429-1744
*Cumberland County	717-249-8632	*Snyder County	717-837-0085
*Dauphin County	717-921-8100	Somerset County	814-445-4652
Delaware County	610-892-9484	Sullivan County	717-924-3983
*Elk County	814-776-5373	Susquehanna County	717-278-4600
			Ext 280
*Erie County	814-796-4203	*Tioga County	717-724-4812
Fayette County	412-438-4497	*Union County	717-523-8782
Forest County	814-755-3450	*Venango County	814-432-7456
*Franklin County	717-264-8074	Warren County	814-723-7700
Fulton County	717-485-3547	Washington County	412-228-6774
Greene County	412-852-1171	Wayne County	717-253-0930
	Ext 319		
Huntingdon County	814-627-1627	Westmoreland	412-837-5271
		County	
Indiana County	412-463-7702	*Wyoming County	717-836-2589 or 2993
Jefferson County	814-849-7463	York County	717-771-9430

\*County Conservation Districts having delegation agreements with the Bureau of Dams, Waterways and Wetlands for general permit processing as of July 1, 1994.

**Source**

The provisions of this Appendix A adopted July 24, 1981, effective July 25, 1981, 11 Pa.B. 2636; amended August 28, 1987, effective August 29, 1987, 17 Pa.B. 3569; amended October 6, 1989, effective October 7, 1989, 19 Pa.B. 4328; amended August 5, 1994, effective August 6, 1994, 24 Pa.B. 3899. Immediately preceding text appears at serial pages (162380) to (162390).

**APPENDIX B  
PRIVATE RECREATIONAL DOCKS; GENERAL  
PERMIT BDWW-GP-2**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

**Table of Contents****Instructions for Using the General Permit****Part One: Applies Specifically to BDWW-GP-2**

- A. General Description and Fees
- B. Sites and Conditions Where this General Permit Does Not Apply
- C. Definitions Applicable to this General Permit
- D. Project Design and Construction Criteria for Docks
- E. Project Design and Construction Criteria for Boat Launching Ramps
- F. Special Provisions Regarding Property Rights
- G. Authority and Continuing Authorization

**Part Two: Applies to BDWW-GP-2 and Other BDWW General Permits**

- A. Registration of Proposed Use of General Permits
- B. Denial of Authorization
- C. Standard Definitions for General Permits
- D. Preconstruction Requirements for All Projects
- E. Other Preconstruction Requirements Where Applicable
- F. Standard Provisions of the General Permit

**Attachments:**

Drawing No. 1—Sample Location Map  
 Drawings No. 2 to 5—Sample Projects with Criteria  
 Exhibit A—Offices of the Pennsylvania Fish and Boat Commission  
 Exhibit B—Offices of the Department of Environmental Resources  
 Exhibit C—County Conservation Districts  
 Exhibit D—Notification to Use (Registration Form)  
 Supplement No. 1—Request for Search of Pennsylvania Natural Diversity Inventory (Form)

**INSTRUCTIONS FOR USING THE GENERAL PERMIT  
BDWW-GP-2  
Small Docks and Boat Launching Ramps**

**Prior to Registration to Use:**

1. Carefully review the definitions and requirements of the General Permit (Part One and Part Two) to determine if your project can qualify for authorization under this General Permit. Refer to Part One, Section B regarding area restrictions and Part One, Sections D and E regarding criteria. If your project cannot be authorized under the General Permit, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office as listed on Exhibit B.

2. Locate your project on a United States Geological Survey (U.S.G.S.) 7 1/2 Minute Quadrangle Map (Commonly called "topographic maps," U.S.G.S. Quadrangles may be available from local merchants dealing in books, hunting supplies and camping equipment.) and prepare a project Location Map, utilizing a photocopy of the U.S.G.S. Quadrangle Map.

3. Complete the top portion of the attached Supplement No. 1 (Pennsylvania Natural Diversity Inventory Form). You will not be authorized to use the General Permit until Supplement No. 1 has been processed to check for potential impacts to rare and endangered species. Therefore, to avoid possible project delays or unnecessary design costs, you are advised to submit Supplement No. 1 for processing prior to General Permit registration. To do so, follow the written instructions on the Supplement No. 1 form. The Department will complete the bottom portion of the form and return it to you, generally within a period of 2 weeks. You must have copies of Supplement No. 1 (whether processed or not) for submission as attachments when you register to use the General Permit.

4. Your project may also require a permit from the U. S. Army Corps of Engineers under section 404 of the Federal Clean Water Act, sections 9 and 10 of the Rivers and Harbors Act and/or section 103 of the Marine Protection, Research and Sanctuaries Act. The registration to use this State General Permit does not relieve you of the obligation to comply with, and the State is not authorized to address, these Corps of Engineers' requirements. Therefore, in order to avoid violation of Federal statutes, please contact the appropriate U. S. Corps of Engineers District Office listed below to determine whether a Federal permit is required for your project.

*Delaware River Basin*

Philadelphia Dist. Corps of Engineers  
Wanamaker Bldg., 100 Penn Square East  
Philadelphia, PA 19107  
(215) 656-6725

*Lake Erie Basin*

Buffalo Dist. Corps of Engineers  
1776 Niagara Street  
Buffalo, NY 14207-3199  
(716) 879-4104

*Ohio River Basin*

Pittsburgh Dist. Corps of Engineers  
1834 Wm. S. Morehead Federal Bldg.  
1000 Liberty Avenue  
Pittsburgh, PA 15222  
(412) 644-6874

*Susquehanna River Basin*

Baltimore Dist. Corps of Engineers  
P. O. Box 1715  
Baltimore, MD 21203-1715  
(410) 962-1846 or (717) 726-7757

5. For any earthmoving activity (For the definition of earthmoving activity, see Part Two, Section C.) associated with your project, prepare the Erosion and Sedimentation Control Plan which must be reviewed and determined satisfactory by the County Conservation District in the county where your project is located. The required Erosion and Sedimentation Control Plan must be prepared and submitted to the Conservation District for review prior to or concurrent with your registration to use the General Permit.

**The Registration Procedure:**

6. Fill in all information on the Notification to Use form (Exhibit D) and make multiple copies. Send one copy each to the municipality and the county in which the project is located.

7. To register use of the General Permit, prepare a complete registration "package" consisting of:

- Two Copies of Notification to Use form (Exhibit D)
- Two copies of the Location Map
- Two copies of the Supplement No. 1 form

Send these items to either:

—The County Conservation District for projects located in all counties where there is a delegation agreement (see Exhibit C).

—OR—

—The Soils and Waterways Section having responsibility for the counties where there is no delegation agreement with the County Conservation District (see Exhibit B).

8. If you are also applying for an Individual Water Obstruction and Encroachment Permit to authorize related work, you may register to use the General Permit in conjunction with your individual permit application. See Part Two, Section A, Item 2.

**Before and During Construction:**

9. Do not begin work until:
  - a. You have received an acknowledgement from the Soils and Waterways Section or County Conservation District that your Exhibit D notification has been received and registered.
  - b. Your Erosion and Sedimentation Control Plan has been reviewed and determined to be satisfactory by the County Conservation District.
  - c. You have notified the Pennsylvania Fish and Boat Commission and the County Conservation District 10 days prior to start of construction. (See Part Two, Section D.).
  - d. You have obtained any other Federal, State or local permits which may be required.
  - e. You have complied with any other applicable preconstruction requirements as listed in Part Two, Section E.
  - f. You have provided written notifications to the municipalities and county where the projects are located prior to the start of construction.
10. During construction of your project, you are responsible for adhering to all terms and conditions of the General Permit, including your approved Erosion and Sedimentation Control Plan and all applicable design and construction criteria in Part One, Sections D and E.

**PART ONE**

**A. General Description and Fees**—The Department of Environmental Resources hereby authorizes, by General Permit, subject to the terms and criteria set forth below, the installation, operation, modification and maintenance of small docks and boat launching ramps in and along the regulated waters of this Commonwealth. There is no registration fee required for a project authorized under this General Permit.

**B. Sites and Conditions Where this General Permit Does Not Apply**—This General Permit does not apply and is not valid in the following situations. Where the General Permit is not applicable, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office (see Exhibit B).

1. Historical, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places. This information is available from the Pennsylvania Historical and Museum Commission, Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-3362.

2. Sites identified in the latest published version of the National Registry of Natural Landmarks.
3. Areas in or within 100 feet of a watercourse designated wild in the National or State Scenic Rivers system in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act. For details on scenic river classification, contact the DER Pennsylvania Scenic Rivers Program, P. O. Box 8475, Harrisburg, PA 17105-8475, telephone (717) 787-2316.
4. Construction activities in stocked trout streams from March 1 through June 15, in wild trout streams from October 1 through December 31, and in Lake Erie tributaries from March 1 through June 15 and from September 1 through December 31 unless written approval is obtained from the Pennsylvania Fish and Boat Commission's Division of Environmental Services (see Exhibit A). Stocked and wild trout stream locations are compiled by the Commission's Division of Fishery Management (see Exhibit A).
5. Projects located where there would be an impact on species of special concern listed under the Endangered Species Act of 1973, the Wild Resources Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Records regarding species of special concern are maintained in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). To verify that there will be no such impacts for a specific project, the Department requires submission of the attached Supplement No. 1 form.
6. Streams or waterbodies designated as Exceptional Value Waters as defined and listed in Chapter 93 (related to water quality standards).
7. Projects requiring excavation of mudflats in the tidal waters of the Delaware River.

**C. Definitions Applicable to this General Permit**—The following words and terms, when used in this General Permit, have the following meanings:

*Boat Launching Ramp*—A sloping stabilized roadway constructed in and along a stream or lake for the purpose of launching boats from vehicular trailers, including associated walkways for boarding boats and on-grade improvements for access, turning and parking.

*Dredge*—To remove sand, gravel, mud or other materials from the beds of regulated waters of this Commonwealth.

*Fill*—Sand, gravel, earth or other material placed or deposited to form an embankment or raise the elevation of the land surface. The term includes material used to replace an area with aquatic life with dry land or to change the bottom elevation of any regulated water of this Commonwealth.

*Other Private and Commercial Facilities*—Docks and boat launching ramps other than those defined as private recreational docks, public access facilities and public service facilities.

*Private Recreational Dock*—A dock utilized for private recreational purposes by the riparian land owner.

*Public Access Facility*—A dock or boat launching ramp for public recreational purposes when the facility is open to the general public and maintained on a nonprofit basis or for use without fee.

*Public Service Facility*—A dock or boat launching ramp constructed, owned or operated by a political subdivision of the Commonwealth which provides services necessary for public health and welfare, or in connection with a service for which no fees or charges other than general taxes are imposed.

*Shoreline*—The edge of water in a lake or other body of water at normal pool elevation; the edge of water along a waterway at the ordinary low water level.

*Small Dock*—A single floating, cantilevered or pile structure constructed within a waterway or other body of water and located on lands or adjacent to riparian lands which are owned or leased by the dock owner. Small docks authorized under this General Permit are classified in four categories based on the proposed use and type of ownership. These categories are (1) private recreational dock, (2) public access facility, (3) public service facility and (4) other private and commercial facilities.

#### **D. Project Design and Construction Criteria for Docks**

1. Small Docks may be constructed to any configuration but shall not exceed 750 square feet in surface area, except where other limits apply on navigable rivers of the United States and on Scenic Rivers (see items 1a and 1b which follow).

a. A Federal permit is required from the U. S. Army Corps of Engineers for small dock structures located on rivers and other waterways which are designated Navigable Waters of the United States and regulated under Section 10 of the Rivers and Harbors Act. The small dock surface area and configuration on these navigable waters must be in conformance with any applicable Section 10 permit criteria which may be more restrictive than this General Permit. Size and shape limitations may be subject to change and may vary between Corps District Offices.

b. In waterways which are part of the National or Pennsylvania Scenic Rivers System the total surface area of a small dock shall not exceed 250 square feet.

2. A small dock on a lake shall not extend more than 50 feet from the edge of normal pool elevation. In a river or other stream, a small dock shall not extend more than 20% of the width of the stream; however, it shall in no instance extend more than 100 feet from the ordinary low water mark of a stream.

3. Only one small dock shall be constructed on a given riparian parcel under this General Permit, except where the parcel is common property or where multiple parties have deeded access rights or easements. See Section F, Items 2 and 3 for specific terms regarding multiple use of this General Permit on a given riparian parcel.

4. No part of the small dock structure or associated boat mooring area may extend in front of adjacent riparian properties or otherwise interfere with access and use of the water by adjacent riparian land owners.
5. Each small dock shall be constructed in such a way that it does not hinder commercial or recreational navigation and does not interfere with normal fish migration.
6. Construction and other activities authorized by this General Permit shall be performed in a manner that minimizes use of equipment within the stream channel or body of water.
7. Construction of a small dock on a waterway shall take place during periods coinciding with lower stream flows.
8. Each small dock shall be constructed in such a way as not to obscure any navigation aids or lights for bridges in the area.
9. Small docks shall be maintained in a functional condition which includes the periodic removal of debris.
10. Maintenance dredging to restore original depths is permitted only in the mooring area for boats and is limited to 10 feet beyond the edge of the dock.
11. Dredging for construction purposes is not authorized by this General Permit.
12. This General Permit does not authorize the storage of fuel or the construction of fuel servicing facilities on the small dock.
13. This General Permit does not authorize the construction or modification of a small dock for use as a habitable structure with living facilities such as beds, bathrooms or kitchens.
14. The owner shall employ measures to prevent and control spills of fuels or lubricants into the waterway.
15. Flotation devices, if used, shall be securely fastened to the structure to prevent separation from the small dock.
16. Drums to be utilized as flotation devices that have been previously filled with another substance shall be thoroughly cleaned before use to preclude the possibility of pollution.
17. The small dock structure shall be adequately secured to the shoreline to insure the structure's stability to withstand the effects of wind, stream flows and wave action.
18. Anchorages shall be placed so they do not accelerate erosion or cause degradation of the streambanks.
19. The placement of fill or dredged material into a watercourse, floodway or body of water is not authorized under this General Permit.
20. To the greatest extent possible, the project shall be designed and constructed in a manner which will (a) prevent permanent or long-term changes in water quality, (b) minimize alterations in natural aquatic habitat and (c) maintain natural streamflow velocities and mixing patterns.

21. Archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, P. O. Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-2891.

**E. Project Design and Construction Criteria for Boat Launching Ramps**

1. Boat launching ramps authorized by this General Permit are limited to a maximum width of 20 feet.

2. Boat launching ramps shall be located to minimize streambank excavation and wetland impacts. Boat launching ramps are limited to a maximum length of 100 feet measured from the top of the ramp to the shoreline.

3. Only one boat launching ramp shall be constructed on a given riparian parcel under this General Permit, except where the parcel is common property or where multiple parties have deeded access rights or easements. See Section F, Items 2 and 3 for specific terms regarding multiple use of this General Permit on a given riparian parcel.

4. Construction and other activities authorized by this General Permit shall be performed in a manner that minimizes use of equipment within the stream channel or body of water.

5. Construction of a boat launching ramp along a waterway shall take place during periods when the stream is at low flow.

6. To the greatest extent possible, the project shall be designed and constructed in a manner which will (a) prevent permanent or long-term changes in water quality, (b) minimize alterations in natural aquatic habitat and (c) maintain natural streamflow velocities and mixing patterns.

7. Where required to support boat trailers, the portion of a boat launching ramp located in a streambed or lakebed may be stabilized by clean rock and/or gravel, timber, precast concrete planks or precast concrete slabs (formed onshore and pushed or lifted in place). This stabilization of the bed surface shall be limited to the minimum length necessary for boat launching.

8. Exposed bank areas along the approach ramp shall be stabilized and protected from the erosive action of waves and stream currents.

9. For launching ramps which require associated facilities such as parking lots and turn-around driveways in the floodway along a stream, necessary regrading shall be accomplished without the addition of fill within the regulated floodway. Parking facilities shall be built on existing grade or with minimal grade changes not exceeding 12 inches. Surfaces shall be stabilized with gravel, macadam or concrete. There shall be a volume of soil material removed from the floodway equal to or greater than the volume of construction materials to be used, and there shall be no net loss of conveyance area in the floodway cross-section. Along waterways designated Exceptional Value (EV) or High Quality Waters (HQ) under Chapter 93 Rules and Regulations (relating to

water quality), a 50-foot wide vegetated buffer strip is required between parking facilities and the streambank. Access roads which cross wetlands and improved parking areas in wetlands are not authorized by this General Permit.

10. Boat ramps constructed along Lake Erie shall be located near the western edge of a property to allow space to dispose future dredge material. Material from maintenance dredging of a boat ramp along the shoreline of Lake Erie shall be placed on the shoreline to the east of the removal site.

11. Archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, P. O. Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-2891.

#### **F. Special Provisions Regarding Property Rights**

1. *Submerged Lands License Agreements and Fees*—As explained in Part Two, Section E, Item 1 of this General Permit, a license agreement is required for projects which are located in certain waters designated navigable or public highways and which are held in trust by the Commonwealth. In accordance with Chapter 105 Rules and Regulations, a minimum annual license fee of \$250 is assessed except for the following types of facilities and uses:

- a. Private recreational docks constructed under a General Permit.
- b. Public Access Facilities provided without charge or on a nonprofit basis.
- c. Public Service Facilities provided without fees or charges.

There is no annual fee assessed for the facilities listed above. However, other types of docks or boat launching ramps will require an annual fee when located in Submerged Lands of the Commonwealth. Therefore, the user of this General Permit is required to indicate the type of structure on the Notification to Use form (Exhibit D).

2. *Multiple Use of the General Permit on Common Property*—An association of homeowners or similar group (association) holding title to common property with riparian rights may register to construct and maintain docks on behalf of individual members. The association shall assure that adequate spacing for mooring and access is maintained between docks. Each dock shall be registered by the association and constructed in accordance with the General Permit.

3. *Use of the General Permit where Multiple Parties Hold Access Rights on Riparian Land*—In areas where common use of riparian land is reserved by easement or other deed restrictions, and where there is no homeowners association or similar organization with appropriate authority, each holder (owner) of such easement or deed restriction may register and construct one dock and boat launching ramp under the authority of this General Permit. Owners are mutually responsible to assure that adequate spacing for mooring and access is



6. I/We certify that an EROSION AND SEDIMENTATION CONTROL PLAN for this project has been submitted for review to the \_\_\_\_\_ County Conservation District on \_\_\_\_\_ (date) .

Signed by: _____	_____
(print name)	(owner address)
_____	_____
(owner signature)	(city/state/zip code)
_____	_____
(title, if applicable)	(owner telephone number)

Send to address on Exhibit B or delegated County Conservation District on Exhibit C.  
*(Editor's Note: For general requirements, definitions and regional office addresses, see "Part Two: Applies to BDWW-GP-1 and other BDWW General Permits" in BDWW-GP-1.*

#### Source

The provisions of this Appendix B adopted December 28, 1990, effective December 29, 1990, 20 Pa.B. 6419; amended August 19, 1994, effective August 20, 1994, 24 Pa.B. 3907. Immediately preceding text appears at serial pages (162391) to (162403).

### APPENDIX C BANK REHABILITATION AND PROTECTION; GENERAL PERMIT BDWW-GP-3

**(Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

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**Attachments:**

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Exhibit D—Notification to Use (Registration Form)  
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**INSTRUCTIONS FOR USING THE GENERAL PERMIT  
BDWW-GP-3  
Bank Rehabilitation, Bank Protection and Gravel Bar  
Removal**

**Prior to Registration to Use:**

1. Carefully review the definitions and requirements of the General Permit (Part One and Part Two) to determine if your project can qualify for authorization under this General Permit. Refer to Part One, Section B regarding area restrictions and Part One, Sections D, E and F regarding criteria. If your project cannot be authorized under the General Permit, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office as listed on Exhibit B.

2. Locate your project on a United States Geological Survey (U.S.G.S.) 7 1/2 Minute Quadrangle Map (Commonly called “topographic maps,” U.S.G.S. Quadrangles may be available from local merchants dealing in books, hunting supplies and camping equipment.) and prepare a project Location Map, utilizing a photocopy of the U.S.G.S. Quadrangle Map.

3. Complete the top portion of the attached Supplement No. 1 (Pennsylvania Natural Diversity Inventory Form). You will not be authorized to use the General Permit until Supplement No. 1 has been processed to check for potential impacts to rare and endangered species. Therefore, to avoid possible project delays or unnecessary design costs, you are advised to submit Supplement No. 1 for processing prior to General Permit registration. To do so, follow the written instructions on the Supplement No. 1 form. The Department will complete the bottom portion of the form and return it to you, generally within a period of 2 weeks. You must have copies of Supplement No. 1 (whether processed or not) for submission as attachments when you register to use the General Permit.

4. Your project may also require a permit from the U. S. Army Corps of Engineers under section 404 of the Federal Clean Water Act, sections 9 and 10 of the Rivers and Harbors Act and/or section 103 of the Marine Protection, Research and Sanctuaries Act. The registration to use this State General Permit does not relieve you of the obligation to comply with, and the State is not authorized to address, these Corps of Engineers' requirements. Therefore, in order to avoid violation of Federal statutes, please contact the appropriate U. S. Corps of Engineers District Office listed below to determine whether a Federal permit is required for your project.

*Delaware River Basin*

Philadelphia Dist. Corps of Engineers  
Wanamaker Bldg., 100 Penn Square East  
Philadelphia, PA 19107  
(215) 656-6725

*Ohio River Basin*

Pittsburgh Dist. Corps of Engineers  
1834 Wm. S. Morehead Federal Bldg.  
1000 Liberty Avenue  
Pittsburgh, PA 15222  
(412) 644-6874

*Lake Erie Basin*

Buffalo Dist. Corps of Engineers  
1776 Niagara Street  
Buffalo, NY 14207-3199  
(716) 879-4104

*Susquehanna River Basin*

Baltimore Dist. Corps of Engineers  
P. O. Box 1715  
Baltimore, MD 21203-1715  
(410) 962-1846 or (717) 726-7757

5. For any earthmoving activity (For the definition of earthmoving activity, see Part Two, Section C.) associated with your project, prepare the Erosion and Sedimentation Control Plan which must be reviewed and determined satisfactory by the County Conservation District in the county where your project is located. The required Erosion and Sedimentation Control Plan must be prepared and submitted to the Conservation District for review prior to or concurrent with your registration to use the General Permit.

6. Take color photographs of the project area showing the scope of the project and existing condition of the bank and/or gravel bar. Prepare two sets of these

photos, mount on 8 1/2"x11" pages and label each photo with a brief description of what is shown and the date photos were taken.

**The Registration Procedure:**

7. Fill in all information on the Notification to Use form (Exhibit D) and make multiple copies. Send one copy each to the municipality and the county in which the project is located.

8. To register use of the General Permit, prepare a complete registration "package" consisting of:

- Two copies of Notification to Use form (Exhibit D)
- Two copies of the Location Map
- Two copies of the Supplement No. 1 form
- Two sets of Color Photographs (mounted with dates and descriptions)

Send these items to either:

—The County Conservation District for projects located in all counties where there is a delegation agreement (See Exhibit C).

—OR—

—The Soils and Waterways Section having responsibility for the counties where there is no delegation agreement with the County Conservation District (see Exhibit B).

9. If you are also applying for an individual Water Obstruction and Encroachment Permit to authorize related work, you may register to use the General Permit in conjunction with your individual permit application (see Part Two, Section A, Item 2).

**Before and During Construction:**

10. Do not begin work until:

- a. You have received an acknowledgement from the Soils and Waterways Section or County Conservation District that your Exhibit D notification has been received and registered.
- b. Your Erosion and Sediment Control Plan has been reviewed and determined to be satisfactory by the County Conservation District.
- c. You have notified the Pennsylvania Fish and Boat Commission and the County Conservation District 10 days prior to start of construction (Part Two, Section D).
- d. You have obtained any other Federal, State or local permits which may be required, including written authorization from the U. S. Army Corps of Engineers for gravel bar removal.
- e. You have complied with any other applicable preconstruction requirements as listed in Part Two, Section E.
- f. You have provided written notifications to the municipalities and county where the projects are located prior to the start of construction.

11. During construction of your project, you are responsible for adhering to all terms and conditions of the General Permit, including your approved Erosion and Sedimentation Control Plan and all applicable design and construction criteria in Part One, Sections D, E and F.

#### PART ONE

**A. General Description and Fees**—The Department of Environmental Resources hereby authorizes, by general permit, subject to the terms and criteria set forth below, the installation, operation, modification and maintenance of bank rehabilitation and protection projects and the removal of gravel bars in and along the regulated waters of this Commonwealth. There is no registration fee required for a project authorized under this General Permit.

**B. Sites and Conditions Where this General Permit Does Not Apply**—This General Permit does not apply and is not valid in the following situations. Where the General Permit is not applicable, you may request approval of an individual permit by submitting an application to the appropriate Soils and Waterways Section in the Regional Office (See Exhibit B).

1. Historical, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places. This information is available from the Pennsylvania Historical and Museum Commission, Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-3362.
2. Sites identified in the latest published version of the National Registry of Natural Landmarks.
3. Wetlands.
4. Construction activities in stocked trout streams from March 1 through June 15, in wild trout streams from October 1 through December 31, and in Lake Erie tributaries from March 1 through June 15 and from September 1 through December 31, unless approval is obtained from the Pennsylvania Fish and Boat Commission's Division of Environmental Services (See Exhibit A). Stocked and wild trout stream locations are compiled by the Commission's Division of Fisheries Management (see Exhibit A).
5. Projects involving channel relocation, channel realignment or placement of fill to construct berms of levees.
6. Any project having a scope of work which is greater in length than 500 linear feet measured along a single continuous reach of stream channel.
7. Projects involving the installation of tires for bank protection.
8. The removal of vegetated gravel bars.
9. Projects requiring excavation of mudflats in the tidal waters of the Delaware River.
10. Projects located where there would be an impact on species of special concern listed under the Endangered Species Act of 1973, the Wild Resources

Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Records regarding species of special concern are maintained in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). To verify that there will be no such impacts for a specific project, the Department requires submission of the attached Supplement No. 1 form.

11. Areas in or within 100 feet of a watercourse designated wild in the National or State Scenic Rivers system in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act. For details on scenic river classifications, contact the DER Pennsylvania Scenic Rivers Program, P. O. Box 8475, Harrisburg, PA 17105-8475, telephone (717) 787-2316.

12. Gravel bar removal in streams or water bodies designated Exceptional Value Waters as defined and listed in Chapter 93 (related to water quality standards).

**C. Definitions Applicable to this General Permit**—The following words and terms, when used in this General Permit, have the following meanings:

*Bank Rehabilitation and Bank Protection*—To restore and/or protect the bank of a stream, lake, pond or reservoir against erosion, scour or sloughing by utilizing any of the following: slope protection, dumped rock protection, cribbing, walls, channel deflectors, vegetative stabilization techniques.

*Channel Realignment*—Any alteration of the stream channel alignment which involves excavation into an existing stream bank.

*Concrete Rubble*—Broken concrete in pieces not to exceed 5 feet in length where neither the width or thickness is less than 1/3 its length and all reinforcing is removed flush with the face of the concrete.

*Dumped Rock Protection*—Sound, durable stone or concrete rubble, insoluble in water and placed by dumping for the purpose of protecting against erosion, scour or sloughing of a bank. To resist transport by flowing water, National Stone Association R-7 is the minimum size rock which shall be used for dumped rock protection.

*Filter Layer*—Well-graded, hard, durable, non-soluble particles (free from muck, topsoil, organic matter or rubbish) or geotextile fabric, placed under slope protection to prevent the natural soil of the bank from being washed away through the slope protection layer.

*Gravel Bars*—Alluvial deposits in stream channels, including accumulations of gravel, glacial till, sediment, silt and flood debris, which obstruct and redirect flow, and which are thereby associated with stream bank erosion.

*Riprap*—A layer, facing or protective mound of stone in random size pieces, selectively placed to prevent erosion, scour or sloughing of a bank.

*Slope Protection*—A layer or facing of sound, durable rock or similar material (natural or manmade), insoluble in water, selectively placed by hand or machine and sized to resist transport by flowing water.

*Vegetated*—An area having greater than 50 percent surface coverage of persistent vegetation during the growing season (undisturbed by acts of man). Persistent vegetation is defined as having a predominance of perennial plant species with the exclusion of first year class seedlings of woody vegetation (shrubs and trees). The vegetational groupings to be considered consist of grasslikes, grasses, forbs, vines, shrubs and trees.

#### **D. Project Design and Construction Criteria**

1. The use of this General Permit is limited to activities which constitute a single, complete project in and along a continuous reach of stream channel not exceeding 500 feet in length. Multiple registration and use of this General Permit for the purpose of extending a project activity beyond the maximum length is prohibited; however, the Department will consider authorizing more extensive projects upon receipt of an application for an individual Water Obstruction and Encroachment Permit. Because this General Permit authorizes only single, complete projects, repeated projects each require a separate registration of General Permit use.

2. Construction of the bank rehabilitation, bank protection project or removal of a gravel bar should not constrict or increase the normal channel width. The configuration of the shoreline shall remain substantially the same and the work shall align smoothly with, and not project further into the channel than adjacent upstream and downstream banks. The upstream and downstream ends of a bank rehabilitation or bank protection project shall be keyed into the stream bank to ensure stability.

3. Construction and other activities authorized by this General Permit shall be performed in a manner that minimizes use of equipment within the stream channel or body of water.

4. Bank rehabilitation, bank protection and gravel bar removal shall take place during periods when the stream is at low flow.

5. To the greatest extent possible, the project shall be designed and constructed in a manner which will (a) prevent permanent or long-term adverse changes in water quality, (b) minimize alterations in natural aquatic habitat and (c) maintain natural streamflow velocities and mixing patterns.

6. The placement of fill higher than the elevation of the existing stream banks, the construction of levees, the realignment or relocation of the channel, dredging activities in water and excavation below existing water level are not authorized by this General Permit.

7. Bank rehabilitation, bank protection and gravel bar removal projects shall not extend across adjacent property lines without the written permission of all affected property owners.

8. During construction activities, all public and private property including existing vegetation, landscape features and monuments within, along and adjacent to the work area, shall be protected and preserved to the maximum degree

possible. This shall include, but not be limited to, precautions taken to minimize damage, erosion, injury or destruction; prevent pollution; provide protection of all trees and other woody plants; special care being taken to protect the natural vegetation and surroundings to include all natural drainageways, ponds, lakes, wetlands, woods and fields; and storage of materials in such manner to prevent leaching which would be injurious to soils and to plants. Precautions should be taken to prevent damage to pipes, conduits and other underground structures.

9. Archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, P. O. Box 1026, Harrisburg, PA 17108-1026, telephone (717) 787-2891.

10. As part of the registration to use this General Permit, the owner shall submit duplicate sets of labeled color photographs which show the scope of the project and the existing condition of the bank to be protected and/or the gravel bar to be removed. The two sets of photographs shall be mounted on 8 1/2"x11" sheets. The date of photography and a written description of what is shown shall be provided for each photograph.

#### **E. Additional Criteria for Bank Rehabilitation and Protection**

1. Slope protection and dumped rock protection shall not exceed the placement of a maximum of 1 cubic yard per running foot below the plane of the ordinary high water mark or the high tide line (in order to be consistent with the requirements of the Corps of Engineers). Where slope protection or dumped rock protection is required to be placed in the floodway or floodplain above the plane of the ordinary high water mark or the high tide line, an additional 1 cubic yard per running foot of stream is authorized.

2. Riprap and other types of slope protection, except for vegetative stabilization and dumped stone protection, should be constructed in two layers.

(A) An outer layer of massive particles to resist the forces of moving water.

(1) The outer layer or principal protection layer should consist of well-graded particles. It is recommended that riprap slope protection shall be sized in accordance with the following Table E(2) designated Design Parameters for Riprap.

(2) The protecting layer should be placed to a minimum thickness approximately 6 inches greater than the maximum particle size, or in accordance with the following Table E(2) for riprap design.

(B) An underlying filter layer of fine material or filter fabric.

(1) Satisfactory filter materials are mixtures of gravel and clean sand with about 80% of the material ranging between 2 inches and 1/4 inch. An

alternative is a commercially available geosynthetic filter fabric that will allow drainage without loss of bank material.

(2) The gravel filter layer should be placed to a thickness in accordance with the following Table E(2) for riprap design.

3. Grouting of slope protection or dumped rock protection is not authorized by this General Permit.

Table E(2). Design Parameters for Riprap

NATIONAL STONE ASSOCIATION NUMBER	AVERAGE SIZE OF STONE IN INCHES	RANGE OF STONE SIZE IN INCHES	RECOM-MENDED PLACEMENT THICKNESS IN INCHES	RECOM-MENDED FILTER THICKNESS IN INCHES	MAXIMUM ALLOWABLE STREAMFLOW VELOCITIES IN FEET PER SECOND	
					HORIZONTAL TO 1 VERTICAL SLOPE	HORIZONTAL TO 1 VERTICAL SLOPE
R-4	6	3 TO 12	15	4	8	10
R-5	9	5 TO 18	24	6	11	12
R-6	12	7 TO 24	30	8	13	14
R-7	15	12 TO 30	36	10	14	16

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4. Only clean, nonpolluting materials shall be used for bank rehabilitation and protection projects in order to minimize excessive turbidity by leaching of fines as well as to preclude entrance of undesirable chemical constituents to the watercourse by natural runoff or leaching.

5. Slag is not authorized for use under this General Permit unless it qualifies as a co-product which is suitable for the specific use.

6. Along streams which are classified priority 1-A or designated Scenic Rivers, it is recommended that bank protection and rehabilitation projects shall maintain the natural character of the bank by incorporating vegetation (see Drawing Nos. 11, 12 and 13). However, woody vegetation shall not be incorporated in riprap protection. The use of concrete rubble for dumped rock protection is prohibited along Scenic Rivers.

7. Dumped rock protection shall have a maximum exterior slope of 1.5 horizontal to 1.0 vertical and a minimum top width of 18 inches at the top of the zone to be protected, as shown on Drawing No. 3B. No filter layer is required for dumped rock protection using well-graded rock. National Stone Association R-7 rock is the minimum rock size to be used for dumped rock protection.

8. Slope protection should not be placed with an exterior slope steeper than 1.5 horizontal to 1.0 vertical.

9. For rock riprap installations, a trench must be excavated at the toe of the slope to provide a supporting base. This trench should be extended to an elevation of at least 2 feet below the streambed level and be filled with the same material as the outer protection layer.

10. Immediately following completion of the project all disturbed slopes shall be stabilized to prevent accelerated erosion in accordance with the approved Erosion and Sedimentation Control Plan.

11. Bank rehabilitation and bank protection projects shall be maintained in a functional condition at all times. Periodic removal of debris deposited on the bank project may be necessary.

12. Each bank rehabilitation and bank protection project shall not hinder commercial or recreational navigation nor interfere with the normal migration of fish.

13. Channel deflectors may not extend from the bank into the channel a distance greater than 25% of the total channel width, and may not extend above the normal water flow a distance greater than 6 inches at the streamward tip.

14. The maximum height of a vertical wall authorized under this General Permit is 6 feet measured from the top of wall to the streambed or lakebed adjacent to the wall.

#### **F. Additional Criteria for Removal of Gravel Bars**

1. The gravel bar removal shall be completed as a single operation in as short a time period as possible. Such projects shall follow the procedures for

channel restoration projects contained in Chapter 4 of the Department's Erosion and Sediment Pollution Control Program Manual, which is available from the County Conservation District Offices.

2. Removal of a gravel bar shall be limited to periods of low flow; a gravel bar shall be removed only to a depth 6 inches above the water level at time of the project. For streams where there are periods of no flow, depth of gravel bar removal is limited to 6 inches above the elevation of the streambed so as not to disturb the existing low flow channel.

3. The equipment operator or contractor shall be informed of the conditions of this General Permit regarding gravel bar removal and shall be provided with working drawings that clearly show the limits of excavation in accordance with the criteria of this General Permit.

4. Bulldozing of the gravel bar material in or across the stream channel is prohibited. Excavation into a streambed or into a streambank adjacent to a gravel bar is prohibited.

5. Material removed from the stream channel shall be deposited outside regulated waters of the Commonwealth including the floodway and any wetlands adjacent to the project, except when the material is suitable and used for bank reconstruction. When the excavated material is to be used to rebuild opposite streambanks, the material shall be hauled (and not pushed) to the placement location.

6. Clean gravel bar material may be used only as an underlying fill or filter material to reconstruct and stabilize an adjacent streambank where the work can be performed in accordance with Part One, Section E, Item 2 of this General Permit. Gravel bar material used in this manner shall be faced with an outer layer of adequately sized slope protection. Gravel bar material which is removed shall not be used for dumped rock protection as defined in this General Permit.

7. In accordance with § 105.233 of Chapter 105 rules and regulations, the removal of sand, gravel or other minerals from submerged lands of this Commonwealth, in quantities which are commercially usable or marketable, shall require a written agreement from and royalty payments to the Commonwealth.

8. Gravel bar removal on lands owned or administered by the Commonwealth as State Parks, State Game Lands or State Forests shall require prior written approval from the administering agency.

9. Gravel bar removal may have limited long-term benefits where there is a streambank erosion problem. Therefore, the use of bank rehabilitation and bank protection measures in conjunction with gravel bar removal is recommended.

10. The owner is advised that a permit from the U. S. Army Corps of Engineers may be required for gravel bar removal projects (see Instructions, Item 4).

**G. Authority and Continuing Authorization**—Authorization of this General Permit is under section 7 of the Dam Safety and Encroachment Act (32 P. S. § 693.7) and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits). This General Permit shall authorize the continued operation and maintenance of bank rehabilitation and protection authorized by General Permit BDWM-GP-3 (Bank Rehabilitation and Protection) issued on July 23, 1983, and reauthorized July 23, 1988 and August 20, 1988.

**EXHIBIT D**

FOR DEPT. USE ONLY

**NOTIFICATION TO USE  
BDWW-GP-3**

ACKNOWLEDGED: DATE _____ GP _____
---

**Bank Rehabilitation, Bank Protection and Gravel Bar Removal**

1. I/We, \_\_\_\_\_  
(owner name(s))

hereby notify the Department of Environmental Resources of our intent to install

\_\_\_\_\_ (description of bank rehabilitation and protection)  
and/or to remove gravel bar material measuring \_\_\_\_\_ feet by  
\_\_\_\_\_ (length)  
\_\_\_\_\_ feet, in accordance with the terms of this General Permit,  
(width, maximum)

across/along \_\_\_\_\_  
(name of stream)

at a point \_\_\_\_\_  
(describe location)

in \_\_\_\_\_, \_\_\_\_\_  
(municipality) (county)

2. I/We have attached a LOCATION MAP (similar to that shown on Drawing No. 1 indicating the site of the project and a copy of SUPPLEMENT NO. 1.

3. I/We have enclosed duplicate copies of EXHIBIT D, the LOCATION MAP and SUPPLEMENT NO. 1.

4. I/We have attached two sets (duplicates) of COLOR PHOTOGRAPHS, mounted on 8 1/2" x 11" pages, and labeled to show the existing conditions at the project site.

5. I/We certify that copies of this notification were sent this day \_\_\_\_\_ (date)  
to \_\_\_\_\_, and \_\_\_\_\_  
(municipality) (County-Commissioner's Office)

6. I/We certify that an EROSION AND SEDIMENTATION CONTROL PLAN for this project has been submitted for review to the \_\_\_\_\_ County Conservation District on \_\_\_\_\_ (date) .

Signed by: \_\_\_\_\_ (print name) \_\_\_\_\_ (owner signature)

---

 (title, if applicable)
 

---



---

 (city/state/zip code)
 

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---

 (owner address)
 

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---

 (owner telephone number)
 

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7. I/We hereby notify the Department also of our intention to install a temporary road crossing in accordance with the terms of BDWW-GP-8, Temporary Road Crossings, during the bank rehabilitation, bank protection and/or gravel bar removal activities (if applicable).

Signed: \_\_\_\_\_

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Send to address on Exhibit B or delegated County Conservation District on Exhibit C.

(*Editor's Note:* For general requirements, definitions and regional office addresses, see "Part Two: Applies to BDWW-GP-1 and other BDWW General Permits" at BDWW-GP-1.)

#### Source

The provisions of this Appendix C adopted July 22, 1983, effective July 23, 1983, 13 Pa.B. 2290; amended July 22, 1988, effective July 23, 1988, 18 Pa.B. 3257; amended August 19, 1988, effective August 20, 1988, 18 Pa.B. 3749; amended August 5, 1994, effective August 6, 1994, 24 Pa.B. 3913. Immediately preceding text appears at serial pages (162404) to (162427).

### APPENDIX D BUREAU OF DAMS AND WATERWAY MANAGEMENT; GENERAL PERMIT BDWM-GP-4 (INTAKE AND OUTFALL STRUCTURES)

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes, by General Permit, subject to the terms and criteria set forth below, the construction, operation and maintenance of intake and outfall structures in, along, across or projecting into the regulated waters of the Commonwealth. This authorization is under section 7 of the Dam Safety and Encroachments Act (32 P. S. § 693.7) and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits).

2. *Denial of Authorization*—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this general permit for any project which the Department determines to have a substan-

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tial risk to life, property or the environment or otherwise could not be adequately regulated by the provisions of this general permit.

3. *Continuing Authorization*—This general permit shall authorize the continued operation and maintenance of outfall structures authorized by general permit BDWM-GP-4 (Outfall Structures) issued on February 4, 1984.

4. *Definitions*—The following terms as used in this General Permit shall have the following meanings:

*Body of Water*—Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Channel*—The bed and banks of a natural stream and/or a man made ditch, canal or conduit which conveys storm water or waste water to a receiving stream or body of water.

*Floodway*—The channel of the watercourse and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood.

*Intake*—The inlet of a pipe or channel conveying water from a stream or body of water.

*Install*—To construct, place, lay or set in place.

*Outfall*—The outlet of a pipe or channel discharging storm water or wastewater into a receiving stream or body of water.

*Intake and Outfall Structures*—Any intake or outfall in or along a stream or body of water which includes such structures as endwalls, headwalls, splash pads, riprap, ditches, conduits, diffusers and diversions.

*Owner*—Any person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*Person*—Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and any department, board, commission or authority of the Commonwealth.

*Regulated Waters of the Commonwealth*—All watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Stocked Trout Stream*—Streams classified as approved trout waters by the Pennsylvania Fish Commission. Classification may be verified by contacting the Pennsylvania Fish Commission's Regional Office or Division of Environmental Services.

*Storm Water*—Flows consisting primarily of runoff resulting from a rainfall event and conveyed to a receiving stream or body of water through a pipe or channel.

*Submerged Lands of This Commonwealth*—All waters and permanently or periodically inundated lands owned by the Commonwealth, including all lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*Wastewater*—Effluent from a sewage, industrial or water plant, conveyed through a pipe or channel for discharge into a receiving stream or body of water.

*Watercourse*—Any channel of conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas. The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the United States Fish and Wildlife Service Wetlands Inventory Maps, and the Pennsylvania Coastal Zone Management Plan and any wetland area designated by a river basin commission or as defined in this chapter.

*Wild Trout Streams*—Streams classified as supporting reproducing trout populations by the Pennsylvania Fish Commission. Classification may be verified by contacting the Pennsylvania Fish Commission's Regional Office or Division of Environmental Services.

5. *Submerged Lands of This Commonwealth*—This General Permit shall not be effective to authorize any project occupying submerged lands of this Common-

wealth until the owner has obtained an easement, right of way, license or lease from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of The Administrative Code of 1929 (71 P. S. § 194), or other applicable laws. Upon receipt of notification of proposed use of this general permit from the owner, the Department will review the project for submerged lands and initiate a Submerged Lands License Agreement if applicable.

6. *Specific Areas Where General Permit Does Not Apply*—This General Permit is not authorized in the following areas:

- a. Historical, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places.
- b. Local historical sites officially approved or recognized by a municipality.
- c. Sites identified in the latest published version of the National Registry of Natural Landmarks.
- d. Areas in or within 100 feet of a watercourse or body of water designated as or nominated for a National or State Wild or Scenic River in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29).
- e. Wetlands.
- f. These streams or water bodies specified as high-quality (HQ) or Exceptional Value (EV) in Chapter 93 (relating to water quality standards).
- g. Stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31 and Lake Erie tributaries from September 1 through December 1 unless approval is obtained from the Fish Commission's Division of Environmental Services.
- h. Areas within easement lands of any Corps of Engineers or Commonwealth of Pennsylvania constructed local flood protection projects.

7. *Other Permits*—Nothing in this General Permit relieves the owner(s) of the obligation of complying with all Federal, Interstate Compact and State laws, regulations and standards for the construction, operation or maintenance of the intake and outfall structure(s).

8. *Notification of Proposed Use of General Permit*—Prior to construction the owners shall submit Exhibit C along with the required location map to the Bureau of Dams and Waterway Management. A copy of Exhibit C shall also be sent to the municipality and county in which the work will be performed. The owner may not begin work until he has notified the Bureau of Dams and Waterway Management and received an acknowledgement of that notification.

9. *Fees*—There is no fee required for a project authorized under this General Permit.

10. *Effective Time Period*—This General Permit will remain in effect indefinitely unless specifically modified, suspended or revised by the Department.

11. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

12. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally Licensed Project, and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States or the Commonwealth of Pennsylvania or its Political Subdivisions in the public interest.

13. *Criteria*

a. Each intake and outfall structure shall be constructed in such manner so that there is no interference with any navigation on the stream, migration of fish or the passage of flood flows.

b. Intake and outfall structures authorized under this General Permit shall not interfere with stream uses as designated in Chapter 93 of the Department's Rules and Regulations.

c. Intake and outfall structures herein authorized shall be properly maintained which includes the removal of any accumulation of debris.

d. This General Permit is not to be construed as approval of discharges into the receiving stream or body of water which may require certification under section 401(a) of the Federal Water Pollution Control Act (33 U.S.C.A. § 1341(a)) or other relevant State Statutes.

e. This General Permit authorizes the construction only of those outfall structures having a pipe outfall 36 inches in diameter or less.

f. Intake structures shall be properly sized and located so that the intake does not violate the riparian rights of downstream users and does not substantially affect the course, current or cross section of the stream located downstream from the intake structure.

g. Intake structures shall be screened or otherwise properly designed to prevent impingement and entrainment of fish.

h. Any archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission, Post Office Box 1026, Harrisburg, Pennsylvania 17120.

i. Pollution of the waterway with harmful chemicals, fuels, oils, greases, bituminous material, acid and/or other harmful or polluting materials, is prohibited.

j. Owner(s) must investigate for drinking water intakes or reservoirs for public and private water supply users downstream within 5 miles of the site of the intake or outfall structure and other users which may be affected by suspended solids and turbidity increases. Written notice shall be given at least 10 days prior to construction to operators of any such intakes or reservoirs. Own-

er(s) must notify public and private water supply operators immediately and no longer than 1 hour after the occurrence at the site which results in the release of suspended solids and turbidity to the stream.

k. Prior to the use of explosives in a watercourse or body of water the permittee shall secure a written permit from the Pennsylvania Fish Commission, under 30 Pa.C.S. § 2906 (relating to permits for uses of explosives). Requests should be directed to the Pennsylvania Fish Commission, Bureau of Administrative Services, Post Office Box 1673, Harrisburg, Pennsylvania 17120, (717) 657-4522.

14. *Department Inspection*—As a condition of use of this general permit, and of the owner's authority to conduct the activities authorized by this general permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and criteria of the general permit. This general permit condition is included under section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16) and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

15. *Activities not in Accordance with the Terms or Criteria*—If the department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or criteria of this general permit or of this chapter, the Department may take such actions, legal or administrative, that it may deem to be appropriate.

16. *Structure Removal*—The owner(s) shall remove all or any portion of the intake or outfall structure upon written notification to the owner by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this general permit or this chapter.

17. *Property Rights*—This General Permit does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

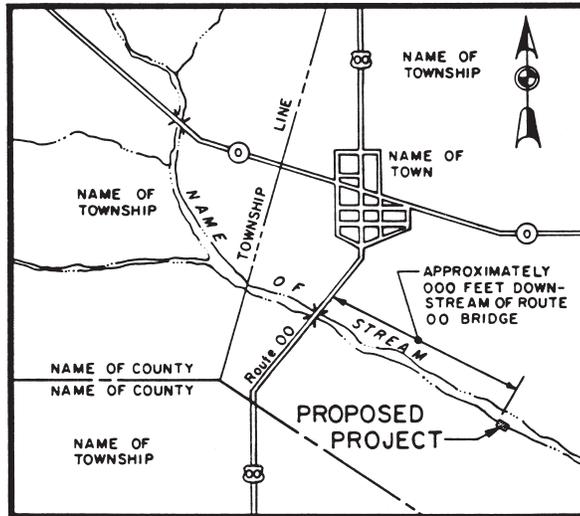
18. *Other Approvals*—The owners shall secure all other approvals that may be necessary under Federal, State or local laws or regulations.

19. *Fish Commission Notification*—The owners shall notify the Fish Commission's Regional Field Office Supervisor, see Exhibit A, responsible for the County where the activities are proposed 10 days prior to start of construction.

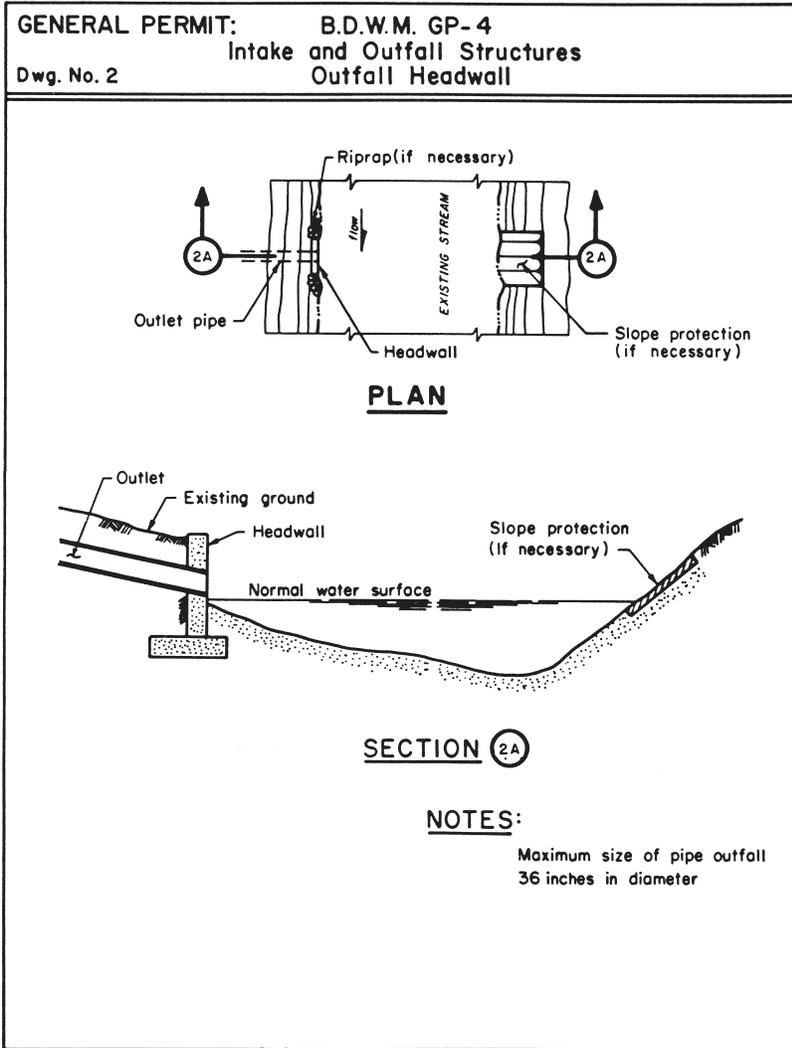
Notification by postcard is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish Commission.

20. *Erosion and Sediment Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to construction an Erosion and Sediment Pollution Control Plan must be reviewed and determined adequate by the County Conservation District in which the activities are proposed and implemented prior to, during and after construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site at all times.

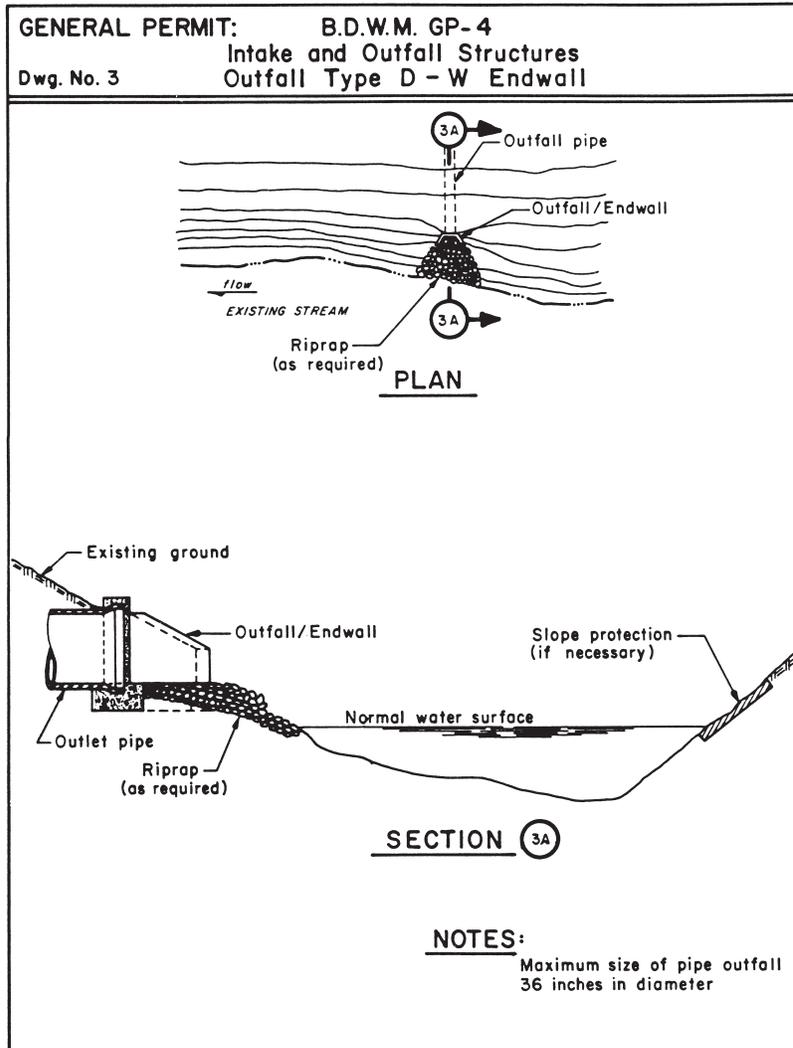
GENERAL PERMIT: B.D.W.M. GP-4  
Intake and Outfall Structures  
Dwg. No. 1 Sample Location Map



NOTE: Use of U.S.G.S. quadrangle map(s) is recommended.

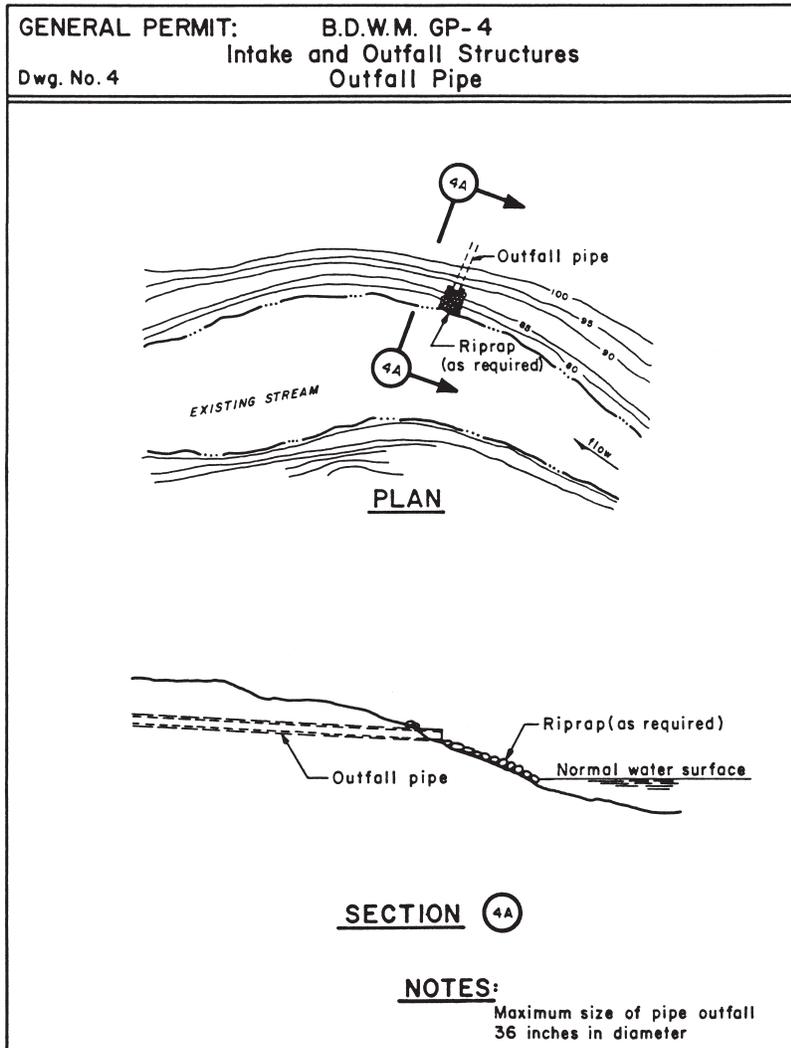


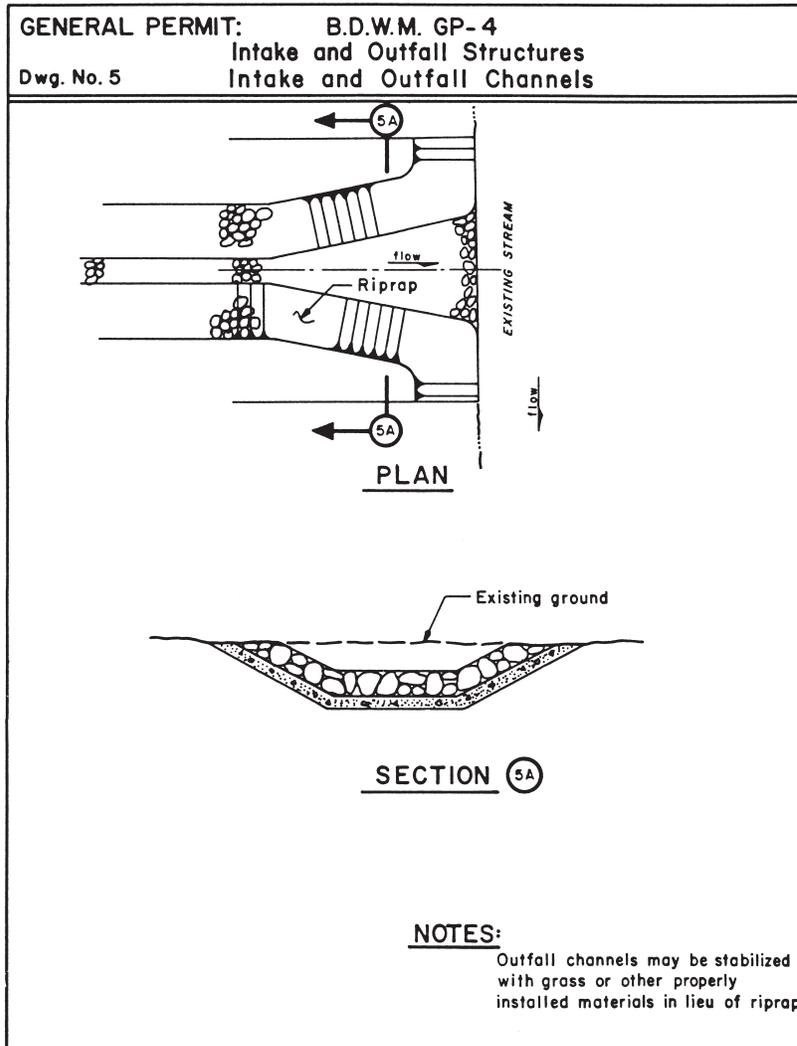
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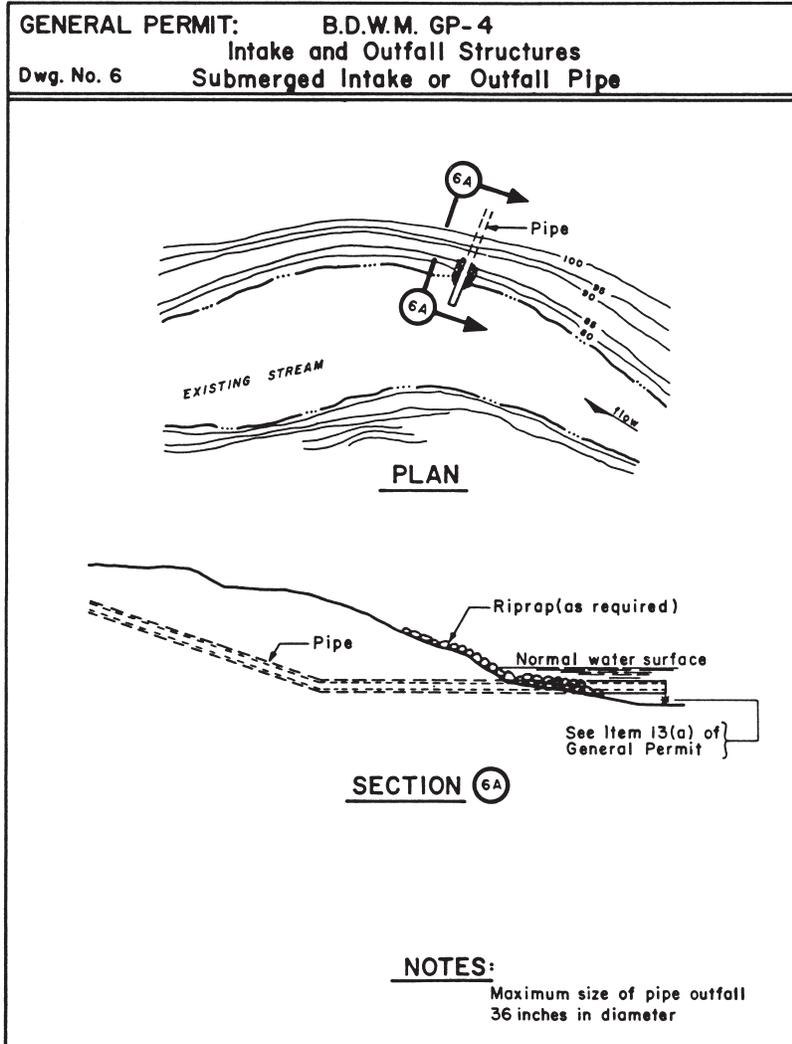
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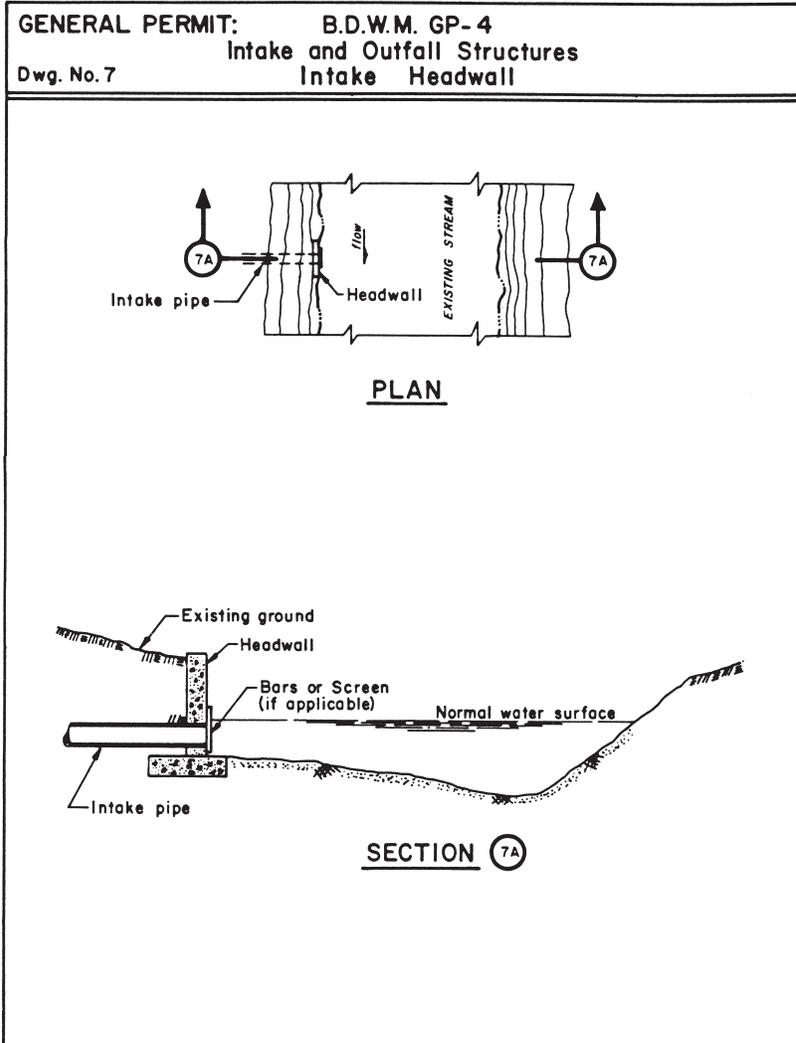


105-175

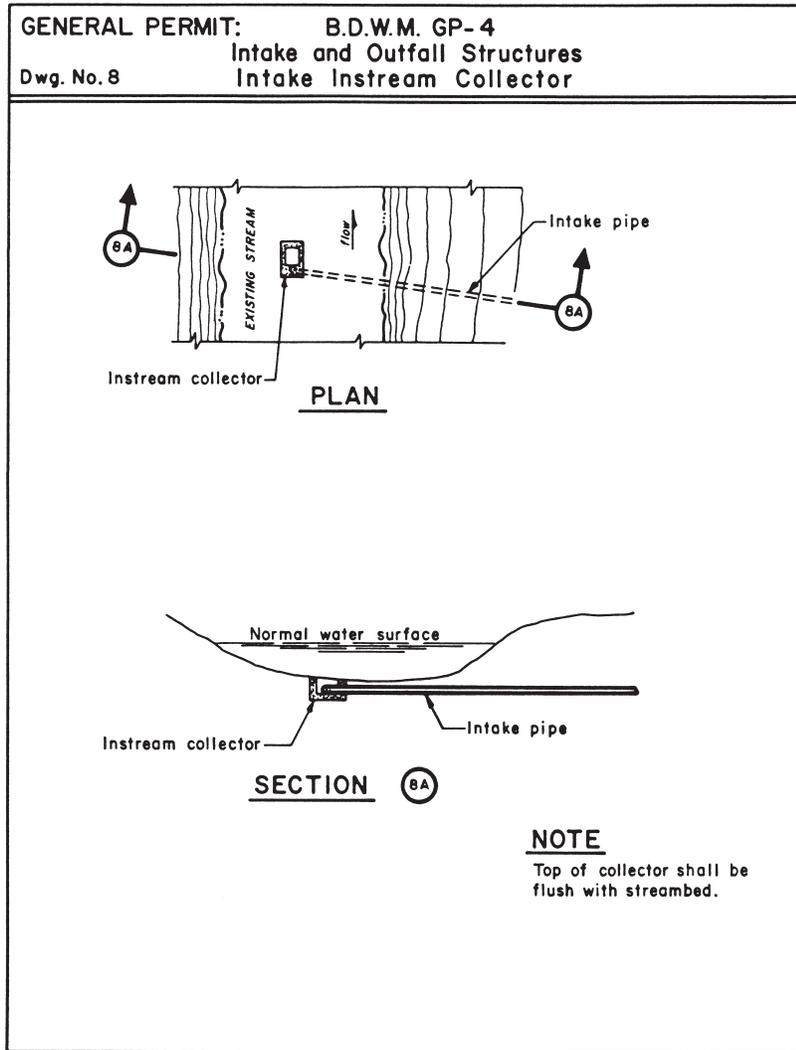
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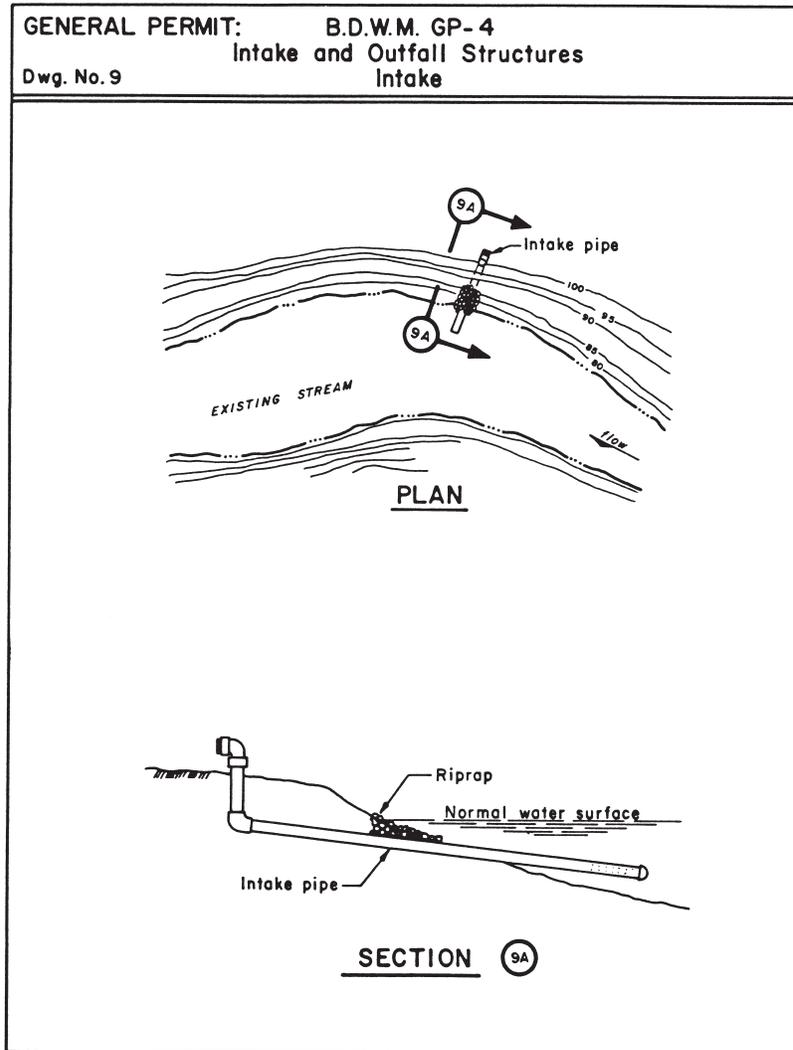
105-176



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105-178



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**EXHIBIT A**  
**FISH COMMISSION'S OFFICES**

*Headquarters Address**County Responsibility**NORTHWEST REGION*

Regional Supervisor  
P. O. Box 349  
1281 Otter Street  
Franklin, Pa. 16323  
(814) 437-5774

Butler, Clarion, Crawford, Erie, Forest,  
Lawrence, Mercer, Venango and Warren

*SOUTHWEST REGION*

Regional Supervisor  
R. D. # 2, Box 39  
Somerset, Pa. 15501-9311  
(814) 445-8974

Allegheny, Armstrong, Beaver, Cambria,  
Fayette, Greene, Indiana, Somerset,  
Washington and Westmoreland

*NORTHCENTRAL REGION*

Regional Supervisor  
Box 187 (Fishing Creek Road)  
Lamar, Pa. 16848  
(717) 726-6056

Cameron, Centre, Clearfield, Clinton, Elk,  
Jefferson, Lycoming, McKean,  
Northumberland, Potter, Snyder, Tioga and  
Union

*SOUTHCENTRAL REGION*

Regional Supervisor  
1704 Pine Road  
Newville, Pa. 17241  
(717) 486-7087

Adams, Bedford, Blair, Cumberland,  
Dauphin, Franklin, Fulton, Huntingdon,  
Juniata, Lebanon, Mifflin, Perry and York

*SOUTHEAST REGION*

Regional Supervisor  
Box 8  
Elm, Pa. 17521  
(717) 626-0228

Berks, Bucks, Chester, Delaware, Lancaster,  
Lehigh, Montgomery, Northampton,  
Philadelphia and Schuylkill

*NORTHEAST REGION*

Regional Supervisor  
Box 88  
Sweet Valley, Pa. 18656  
(717) 477-5717

Bradford, Carbon, Columbia, Lackawanna,  
Luzerne, Monroe, Montour, Pike, Sullivan,  
Susquehanna, Wayne and Wyoming

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*DIVISION OF ENVIRONMENTAL SERVICES*

450 Robinson Lane  
 Bellefonte, Pa. 16823-9616  
 (814) 359-5145

**EXHIBIT B**  
**DEPARTMENT OF ENVIRONMENTAL RESOURCES**  
**BUREAU OF DAMS AND WATERWAY MANAGEMENT**

<i>Area Office</i>	<i>County Responsibility</i>
Southcentral Area Office Room 149, One Ararat Blvd. P. O. Box 8554 Harrisburg, Pa. 17105-8554 (717) 541-7901	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Area Office Suite 6010, Lee Park 555 North Lane Conshohocken, Pa. 19428 (215) 832-6340	Berks, Bucks, Carbon, Chester, Delaware, Lehigh, Northampton, Montgomery, Philadelphia and Schuylkill
Southwest Area Office 482 Route 30, R. D. 1 Clinton, Pa. 15026 (412) 899-2377	Allegheny, Armstrong, Beaver, Butler, Cambria, Fayette, Greene, Indiana, Lawrence, Somerset, Washington and Westmoreland
Northwest Area Office 190 Adams Road Jamestown, Pa. 16134 (412) 932-3162	Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Venango and Warren
Northeast Area Office Suite 203, Cross Valley Centre 667 North River Street Plains, Pa. 18705-1099 (717) 826-5485	Bradford, Columbia, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne and Wyoming
Northcentral Area Office 200 Pine Street Williamsport, Pa. 17701 (717) 327-3574	Cameron, Centre, Clinton, Lycoming, Montour, Northumberland, Potter, Snyder, Tioga and Union

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*BUREAU OF DAMS AND WATERWAY MANAGEMENT*  
*CENTRAL OFFICE*  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7900

**EXHIBIT C**  
 Notification to Use  
 BDWM-GP-4  
 Intake and Outfall Structures

I/We, \_\_\_\_\_  
 (owner name(s))  
 hereby notify the Bureau of Dams and Waterway Management of our intent to use Drawing No. \_\_\_\_\_ to install \_\_\_\_\_  
 (description of intake or outfall structure)  
 across/along \_\_\_\_\_  
 (name of stream)  
 at a point \_\_\_\_\_  
 (describe location)  
 \_\_\_\_\_  
 in \_\_\_\_\_, \_\_\_\_\_  
 (municipality) (county)  
 I/We have attached a LOCATION MAP similar to that shown on Drawing No. 1 indicating where the intake or outfall structure will be installed.  
 I/We certify that a copy of this notification was sent this day \_\_\_\_\_  
 (date)  
 to \_\_\_\_\_ and \_\_\_\_\_ where the work will  
 (municipality) (county)  
 be performed.

Signed: \_\_\_\_\_  
 (owner or authorized representative)

\_\_\_\_\_  
 (owner address)

\_\_\_\_\_  
 (owner telephone number)

1/90  
 Send to one of the addresses on Exhibit B.

**Source**

The provisions of this Appendix D adopted February 3, 1984, effective February 4, 1984, 14 Pa.B. 398; amended May 26, 1989, effective June 26, 1989, 19 Pa.B. 2281. Immediately preceding text appears at serial pages (130002) and (117751) to (117756).

**APPENDIX E****UTILITY LINE STREAM CROSSINGS;  
GENERAL PERMIT BDWM-GP-5**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes, by general permit, subject to the terms and criteria set forth, the installation, operation and maintenance of utility line stream crossings of the regulated waters of the Commonwealth. This authorization is under section 7 of the Dam Safety and Encroachments Act (32 P. S. § 693.7) and the rules and regulations promulgated thereunder at §§ 105.441—105.449 (relating to general permits).

2. *Denial of Authorization*—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this general permit for any project which the Department determines to have a substantial risk to life, property or the environment or otherwise could not be adequately regulated by the provisions of this general permit.

3. *Definitions*—The following terms as used in this general permit shall have the following meanings:

*Body of Water*—Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Floodway*—The channel of the watercourse and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood.

*Install*—To construct, deposit, place, lay or set in place.

*Owner*—Any person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*Person*—Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and any department, board, commission or authority of the Commonwealth.

*Regulated Waters of the Commonwealth*—All watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Reservoir*—Any basin, either natural or artificial, which contains or will contain the water or other fluid or semifluid impounded by a dam.

*Stocked Trout Stream*—Streams classified as approved trout waters by the Fish Commission. Classification may be verified by contacting the Fish Commission's Regional Office or the Division of Environmental Services.

*Submerged Lands of this Commonwealth*—All waters and permanently or periodically inundated lands owned by the Commonwealth, including all lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*Utility Line*—Any pipe or pipeline for the transportation of a gaseous, liquid, liquifiable or slurry substance or, any cable, conduit, line or wire for the transmission of electrical energy, telephone, telegraph, radio or television signals, including cathodic corrosion protection.

*Watercourse*—Any channel of conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adopted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas. The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the United States Fish and Wildlife Service Wetlands Inventory Maps, as utilized by the Pennsylvania Coastal Zone Management Program and any wetland area designated by a river basin commission.

*Wild Trout Streams*—Streams classified as supporting reproducing trout populations by the Fish Commission. Classification may be verified by contacting the Fish Commission's Regional Office or the Division of Environmental Services.

4. *Submerged Lands of this Commonwealth*—This General Permit shall not be effective to authorize any project over, across or occupying submerged lands of this Commonwealth until the owner has obtained a license from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of The Administrative Code of 1929 (71 P. S. § 194), or other applicable laws. Upon receipt of notification from the owner, the Department will review the project to determine if its location is over, across or occupies submerged lands of the Commonwealth.

5. *Specific Areas Where General Permit Does not Apply*—This general permit is not authorized in the following areas:

- a. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places.

- b. Local historical sites officially approved or recognized by a municipality.
  - c. Sites identified in the latest published version of the National Registry of Natural Landmarks.
  - d. Areas in or within 100 feet of a watercourse or body of water designated as or nominated for a National or State Wild or Scenic River in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29).
  - e. Important wetlands regulated under § 105.17 (relating to wetlands).
  - f. Wetlands, greater than 10 acres in size.
  - g. Stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31 and Lake Erie tributaries from September 1 through December 1 unless approval is obtained from the Fish Commission's Division of Environmental Services.
  - h. Reservoirs.
  - i. Streams or water bodies designated as Exceptional Value Waters as defined and listed in Chapter 93 (relating to water quality standards).
6. *Other Permits*—Nothing in this General Permit relieves the owners of the obligation of complying with all Federal, Interstate Compact and State laws, regulations and standards for the construction, operation or maintenance of utility lines.
7. *Notification of Proposed Use of General Permit*—Prior to construction the owners shall submit Exhibit B along with the required location map to the Bureau of Dams and Waterway Management. A copy of Exhibit “B” shall also be sent to the municipality and county in which the work will be performed. The owner may not begin work until he has notified the Bureau of Dams and Waterway Management and received an acknowledgement of that notification.
8. *Fees*—There is no fee required for a project authorized under this general permit.
9. *Effective Time Period*—This general permit will remain in effect indefinitely unless specifically modified, suspended or revised by the Department.
10. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this general permit at any time upon notice in the *Pennsylvania Bulletin*.
11. *Project Interference*—This general permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally Licensed Project; and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States, the Commonwealth of Pennsylvania or its Political Subdivisions in the public interest.
12. *Conditions*
- a. The maximum size utility line allowed is 36 inches in diameter.

b. All utility lines under streambeds shall be located such that there will be a minimum of 3 feet of cover between the top of the utility line or encasement and the lowest point in the natural contour of the streambed, unless the utility line is in rock, where a minimum cover of 1 foot shall be provided.

c. Trenches excavated for the installation of utility lines shall be the minimum width necessary. As soon as the utility line is installed and tested to ascertain no leakage, appropriate new or previously excavated backfill material shall be placed in the trench and the area restored to its original condition and elevation and stabilized. Backfill material stored in connection with the installation must be properly retained out of the floodway so as to prevent its discharge, washings or runoff from entering the waterway prior to its placement as backfill.

d. Adequate measures shall be used to prevent sedimentation from the trench from entering the stream.

e. The backfilling of the trench in which the pipe will be laid shall be done so as to eliminate the formation of a permanent ridge in the streambed.

f. During construction activities, all public and private property including existing vegetation, landscape features and monuments within, along and adjacent to the work area, shall be protected and preserved to the maximum degree possible. This shall include, but not be limited to, precautions taken to minimize damage, erosion, injury or destruction; prevent pollution; provide protection of all trees and other woody plants; special care being taken to protect the natural vegetation and surroundings to include all natural drainageways, ponds, lakes, swamps, woods and fields; and storage of materials in such a manner to prevent leaching which would be injurious to soils and to plants. Precautions should be taken to prevent damage to pipes, conduits and other underground structures.

g. Archaeological artifacts discovered during the performance of work authorized under this general permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Historical and Museum Commission, Post Office Box 1026, Harrisburg, Pennsylvania 17120.

h. Owners shall investigate for drinking water intakes or reservoirs for public and private water supplies within 5 miles downstream of the crossing and written notice shall be given at least 10 days prior to construction to operators of any such intakes or reservoirs. Owners must notify public and private water supply operators immediately and no longer than 1 hour after an occurrence at the crossing site which results in the release of suspended solids and turbidity to the stream.

i. Mats, pads or other similar devices shall be used where crossings of wetland areas by construction equipment cannot be avoided. Original grades through wetlands must be restored after trenching and backfilling. Any excess fill material must be removed from the wetland and not spread onsite. Mound-

ing of fill material to allow for settlement in the trench will be permitted in accordance with best construction methods.

j. Deposition of dredged or excavated materials and all earthwork operations will be carried out in such a way as to minimize erosion of the material and preclude its entering into any wetland adjacent to the utility line crossing.

k. Utility line crossings of streams should be accomplished so that the line is at a right angle to the stream where possible, unless the crossing is installed on an existing bridge.

l. Whenever possible, in accordance with best construction methods utility line crossings are to be made “in the dry” by installing sandbag and plastic dams and piping stream flow through the affected area.

m. Prior to the use of explosives in a watercourse or body of water the permittee shall secure a written permit from the Fish Commission, under 30 Pa.C.S. § 2906 (relating to permits for use of explosives). Requests should be directed to the Fish Commission, Bureau of Administrative Services, Post Office Box 1673, Harrisburg, Pennsylvania 17120, (717) 657-4522.

13. *Pollution Incident Prevention and Mitigation*—For projects constructed under the authorization of this general permit which transmit hazardous or toxic material, the owner shall take the following actions to prevent or alleviate the harm from pollution, under the requirements of Chapter 101 (Reserved):

a. Develop and implement a Preparedness, Prevention and Contingency (PPC) Plan in accordance with Departmental guidelines. The Department reserves the right to require the PPC Plan to be revised or amended for any deficiencies subsequently identified by the Department.

b. In the event a pollution incident occurs which causes or threatens to cause surface or groundwater pollution, the owner shall:

(1) Promptly notify the Department by telephone of the location and nature of the danger.

(2) Notify all known downstream users of the water.

(3) Immediately take all necessary steps to prevent injury to property and downstream users and protect waters from pollution or danger of pollution.

(4) Remove any contamination from affected ground or surface water to the extent required by the Department.

14. *Department Inspection*—As a condition of use of this general permit, and of the owner’s authority to conduct the activities authorized by this general permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under

investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and criteria of the general permit. This general permit condition is referenced in accordance with section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16) and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

15. *Activities not in Accordance with the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or conditions of this general permit or of this chapter the Department may take such actions, legal or administrative, that it may deem to be appropriate.

16. *Structure Removal*—The owners shall remove all or any portion of the utility line project upon written notification to the owner by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this general permit or this chapter.

17. *Property Rights*—This general permit does not convey any property rights, either in real estate or material, or any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

18. *Other Approvals*—The owners shall secure all other approvals that may be necessary under other Federal, State or local laws or regulations, including the specific permission of owners of bridges or other structures to which the utility line may be attached.

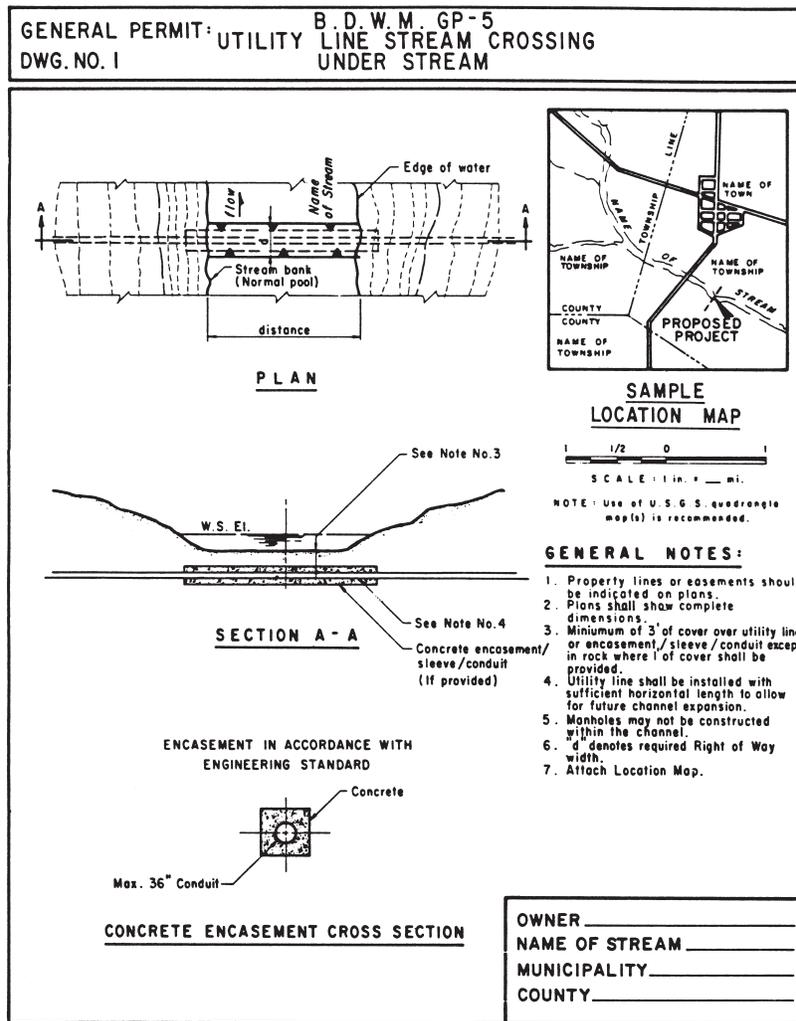
19. *Fish Commission Notification*—The owners shall notify the Fish Commission's Regional Field Office Supervisor, responsible for the County where the activities are proposed 10 days prior to start of construction. Notification by postcard is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Fish Commission.

20. *Erosion and Sediment Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to construction an Erosion and Sediment Pollution Control Plan must be reviewed and determined adequate by the County Conservation District in which the activities are proposed and implemented prior to, during and after construction. The County Conservation District shall be notified 10 days prior to the start of construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site.

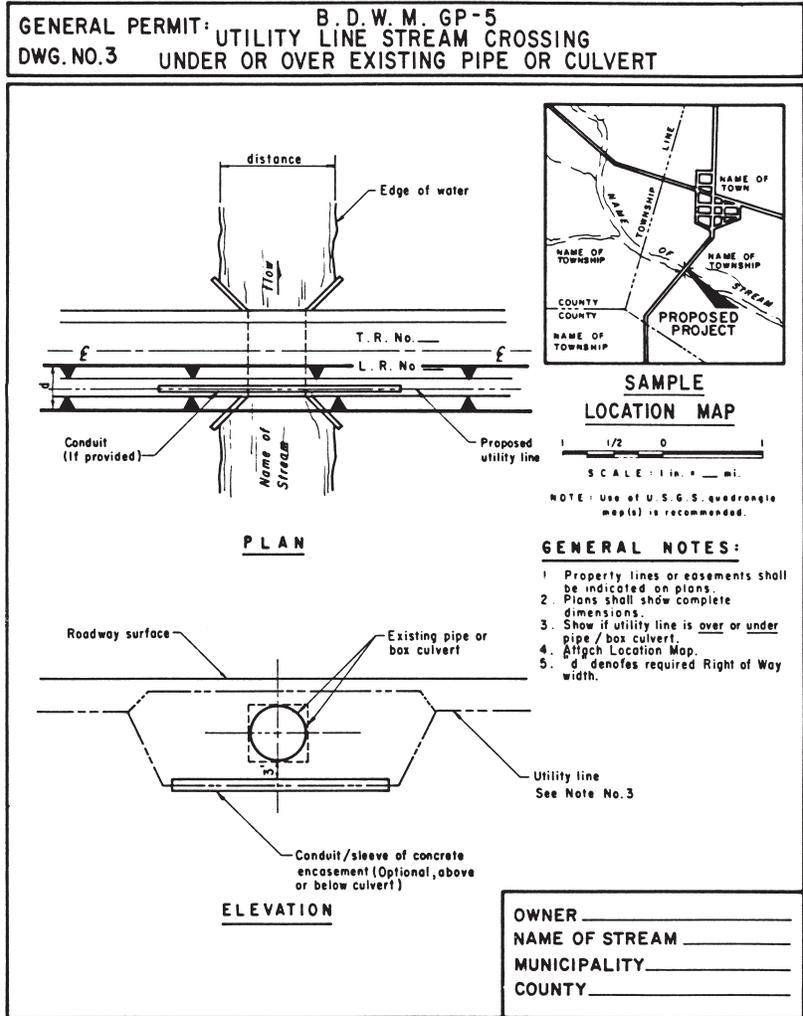
21. *Utilization of General Permit BDWM-GP-8, Temporary Road Crossings*—Temporary road crossings of streams and causeways that are necessary for equipment to move back and forth across a stream and located adjacent to the utility line crossing are authorized by and must be constructed in accor-

dance with BDWM-GP-8. The owners shall indicate utilization of GP-8 on Exhibit B in the space provided. Owners constructing temporary road crossings in those areas excluded from the application of GP-8 must apply for an individual water obstruction permit for those road crossings.

3/90



<b>GENERAL PERMIT:</b> <b>DWG. NO. 2</b>	<b>B. D. W. M. GP-5</b> <b>UTILITY LINE STREAM CROSSING</b> <b>ATTACHED TO EXISTING BRIDGE</b>				
<p style="text-align: center;"><b>BRIDGE PLAN</b></p>	<p style="text-align: center;"><b>SAMPLE LOCATION MAP</b></p> <p style="text-align: center;">SCALE: 1 in. = 1 mi.</p> <p style="text-align: center;">NOTE: Use of U.S.G.S. quadrangle maps is recommended.</p> <p><b>GENERAL NOTES:</b></p> <ol style="list-style-type: none"> <li>1. Property lines or easements should be indicated on plans.</li> <li>2. Plans shall show complete dimensions.</li> <li>3. Utility line cannot be placed below the lowest part (structure) of bridge, i.e. within the waterway opening.</li> <li>4. Attach Location Map.</li> <li>5. 'd' denotes required Right of Way width.</li> </ol>				
<p style="text-align: center;"><b>ELEVATION</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">OWNER _____</td> </tr> <tr> <td style="padding: 2px;">NAME OF STREAM _____</td> </tr> <tr> <td style="padding: 2px;">MUNICIPALITY _____</td> </tr> <tr> <td style="padding: 2px;">COUNTY _____</td> </tr> </table>	OWNER _____	NAME OF STREAM _____	MUNICIPALITY _____	COUNTY _____
OWNER _____					
NAME OF STREAM _____					
MUNICIPALITY _____					
COUNTY _____					



105-191

(207847) No. 255 Feb. 96



*DIVISION OF ENVIRONMENTAL SERVICES*

Robinson Lane  
 Bellefonte, Pa. 16823  
 (814) 359-5145

**EXHIBIT B**

**DEPARTMENT OF ENVIRONMENTAL RESOURCES  
 BUREAU OF DAMS AND WATERWAY MANAGEMENT**

<i>Area Office</i>	<i>County Responsibility</i>
Southcentral Area Office Room 149 One Ararat Boulevard P. O. Box 8554 Harrisburg, Pa. 17105-8554 (717) 541-7901	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Area Office Suite 6010, Lee Park 555 North Lane Conshohocken, Pa. 19428 (215) 832-6340	Berks, Bucks, Carbon, Chester, Delaware, Lehigh, Northampton, Montgomery, Philadelphia and Schuylkill
Southwest Area Office 482 Route 30 R. D. 1 Clinton, Pa. 15026 (412) 899-2377	Allegheny, Armstrong, Beaver, Butler, Cambria, Fayette, Greene, Indiana, Lawrence, Somerset, Washington and Westmoreland
Northwest Area Office 190 Adams Road Jamestown, Pa. 16134 (412) 932-3162	Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Venango and Warren
Northeast Area Office Suite 203, Cross Valley Centre 667 River Street Plains, Pa. 18705-1099 (717) 826-5485	Bradford, Columbia, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne and Wyoming
Northcentral Area Office 200 Pine Street Williamsport, Pa. 17701 (717) 327-3574	Cameron, Centre, Clinton, Lycoming, Montour, Northumberland, Potter, Snyder, Tioga and Union

105-193

*BUREAU OF DAMS AND WATERWAY MANAGEMENT  
 CENTRAL OFFICE  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7900*

**EXHIBIT C**

Notification to Use  
 BDWM-GP-5  
 Utility Line Stream Crossings

I/We, \_\_\_\_\_, hereby notify the Bureau of Dams and Waterway Management of our intent to use Sample Drawing No. \_\_\_\_\_ to install \_\_\_\_\_  
(owner name(s))  
(size and description of utility line)  
 across/along \_\_\_\_\_  
(name of stream, body of water, or wetland)  
 at a point \_\_\_\_\_  
(describe location)

in \_\_\_\_\_, \_\_\_\_\_.  
(municipality) (county)

I/We have attached a LOCATION MAP similar to that shown on the sample drawings indicating where the utility line will be installed.

I/We certify that a copy of this notification was sent this day \_\_\_\_\_  
(date)

to \_\_\_\_\_, and \_\_\_\_\_  
(municipality) (county)  
 in which the work will be performed.

Signed: \_\_\_\_\_  
(owner or authorized representative)

\_\_\_\_\_  
(owner address)

\_\_\_\_\_  
(owner telephone number)

3/90  
 I/We hereby notify the Bureau that BDWM-GP-8, Temporary Road Crossing will also be utilized during the installation of the utility line.

Signed: \_\_\_\_\_

Send to one of the addresses on Exhibit B.

**Source**

The provisions of this Appendix E adopted January 15, 1988, effective February 16, 1988, 18 Pa.B. 276.

**APPENDIX F  
AGRICULTURAL CROSSINGS AND  
RAMPS; GENERAL PERMIT BDWM-GP-6**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes, by general permit, subject to the terms and criteria set forth, the installation, operation and maintenance of Agricultural Crossings and Ramps in the regulated waters of the Commonwealth. This authorization is pursuant to section 7 of the Dam Safety and Encroachments Act (32 P. S. § 693.7), and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits).

2. *Denial of Authorization*—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this general permit for any project which the department determines to have a substantial risk to life, property or the environment or otherwise could not be adequately regulated by the provisions of this permit.

3. *Definitions*—The following terms as used in this general permit shall have the following meanings.

*Agricultural ramp*—The stabilization of the stream bank with stone or timber to provide protection of the stream bank from livestock and agricultural equipment use.

*Agricultural crossing*—The stabilization of the bed or banks of a stream to provide protection of the bed and banks from livestock and agricultural equipment use.

*Body of water*—Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*FEMA*—The Federal Emergency Management Agency.

*Floodway*—The channel of the watercourse and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-

year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

*Install*—To construct, deposit, lay or set in place.

*Owner*—Any person who owns, controls, operates, maintains, or manages a dam or reservoir, water obstruction, or encroachment.

*Person*—Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and any department, board, commission, or authority of the Commonwealth.

*Regulated waters of this Commonwealth*—All watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Reservoir*—A basin, either natural or artificial, which contains or will contain the water or other fluid or semi-fluid impounded by a dam.

*Stocked trout stream*—Streams classified as approved trout waters by the Pennsylvania Fish Commission. Classification may be verified by contacting the Pennsylvania Fish Commission's Regional Office, Division of Property Services or Division of Environmental Services.

*Submerged lands of this Commonwealth*—All waters and permanently or periodically inundated lands owned by this Commonwealth, including all lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*Watercourse*—Any channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan, and any wetland area designated by a river basin commission (or as defined in this chapter).

*Wild trout streams*—Streams classified as supporting reproducing trout populations by the Pennsylvania Fish Commission. Classification may be verified by contacting the Pennsylvania Fish Commission's Regional Office, Division of Property Services or Division of Environmental Services.

4. *Submerged Lands of this Commonwealth*—This general permit shall not be effective to authorize any project over, across or occupying submerged lands of this Commonwealth until the owner has obtained a license from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of The Administrative Code of 1929 (71 P. S. § 194) or other applicable laws. Upon

receipt of notification from the owner, the Department will review the project to determine if its location is over, across, or occupies submerged lands of the Commonwealth.

5. *Specific Areas Where General Permit Does Not Apply*

a. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places.

b. Local historical site officially approved or recognized by a municipality.

c. Sites identified in the latest published version of the National Registry of Natural Landmarks.

d. Stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31, and Lake Erie tributaries from September 1 through December 1 unless written approval is obtained from the Pennsylvania Fish Commission's Division of Property Services or Division of Environmental Services.

e. Wetlands except those wetlands that are immediately adjacent to or within a watercourse and are an integral part of the construction of the Agricultural Ramp or Crossing.

f. Streams or water bodies designated as Exceptional Value Waters (EV) as defined and listed in Chapter 93 (relating to water quality standards).

6. *Other Permits*—Nothing in this General Permit relieves the owners of the obligation of complying with all Federal, Interstate Compact and State laws, regulations and standards for installation, operation or maintenance of Agricultural Crossings and Ramps.

7. *Notification of Proposed Use of General Permit*—Prior to construction the owner shall submit Exhibit C along with the required location map to the Bureau of Dams and Waterway Management. A copy of Exhibit C shall be sent to the municipality and county in which the work will be performed. **THE OWNER MAY NOT BEGIN WORK UNTIL HE HAS NOTIFIED THE BUREAU OF DAMS AND WATERWAY MANAGEMENT AND RECEIVED ACKNOWLEDGEMENT OF THE NOTIFICATION.**

8. *Change of Ownership*—If there is a change in ownership of an agricultural crossing or ramp installed in accordance with this general permit, the new owner is required to register the structure with the Department in accordance with Item 7.

9. *Fees*—There is no fee required for a project authorized under this general permit.

10. *Effective Time Period*—This general permit will remain in effect indefinitely unless specifically modified, suspended, or revised by the Department.

11. *Suspension, Modification or Revocation*—The Department may suspend, modify, or revoke this general permit at any time upon notice in the *Pennsylvania Bulletin*.

12. *Project Interference*—This general permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally License Project, and permittees shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations.

13. *Conditions.*

a. The Pennsylvania Fish Commission Division of Property Services, United States Department of Agriculture Soil Conservation Service or respective County Conservation District may be able to provide technical assistance in locating appropriate sites for agricultural crossings and ramps.

b. The agricultural crossing or ramp shall be completed within 30 days from the start of its construction. All disturbed areas shall be stabilized within 5 days.

c. Construction of the crossing or ramp should not alter the normal channel width. The configuration of the stream bank shall remain substantially the same and the work shall blend with adjacent upstream and downstream banks.

d. Each agricultural crossing and ramp shall be installed in such a way that it does not hinder recreational navigation nor interfere with the normal migration of fish.

e. Written notice shall be given to operators of drinking water intakes or reservoirs for public and private water supplies and permitted public bathing beaches within 5 miles downstream of the crossing or ramp at least 10 days prior to construction of the crossing. Owner(s) must notify operators immediately and no longer than 1 hour following the release of suspended solids and turbidity to the stream due to any construction activity.

f. Structures authorized by this general permit shall be maintained in a safe and functional condition including necessary debris removal.

g. Only clean, nonpolluting, granular materials shall be used as fill material in order to minimize excessive turbidity by leaching of fines as well as to preclude the entrance of potentially polluted materials to the watercourse by natural runoff.

h. Slag may not be used as a substitute for stone.

i. Dredged or excavated materials may not be deposited in wetlands or within the limits of the floodway or any area affected by floods.

j. Prior to the use of explosives in a watercourse or body of water the permittee shall secure a written permit from the Pennsylvania Fish Commission, under 30 Pa.C.S. § 2906 (relating to permits for use of explosives). Requests should be directed to the Fish Commission, Division of Environmental Services (See Exhibit A).

k. Agricultural crossings and ramps shall be installed at a right angle to the stream flow.

- l. Agricultural crossings and ramps must be keyed into the stream bank(s) or bed which may be accomplished by trenching or by machine weight running on the stone fill.
- m. Agricultural crossings and ramps should be no steeper than 4:1.
- n. Skidding of timber across ramps and crossings is prohibited.
- o. Interior stone for crossings and ramps shall be of a diameter to fill the voids that will encourage livestock use.
- p. Exterior frame stone for crossings and ramps shall be of sufficient diameter to resist transport by normal high flows and require deeper keying into the stream bank or bed.
- q. Stone placed for agricultural crossings shall not exceed 12 inches in height above the natural streambed.
- r. The placement of fill higher than the elevation of the existing stream banks, the realignment of the channel or the dredging of a watercourse is not authorized by this general permit.
- s. Grouting of stone is not authorized by this general permit.
- t. Agricultural crossings and ramps that are to be utilized by livestock shall include fencing or other barriers to direct the livestock to the crossing or ramp and to control the movement within the crossing or ramp.
- u. Roadways leading to or from an agricultural crossing or ramp that are to be constructed in wetlands are not authorized by this general permit.
- v. Archaeological artifacts discovered during the performance of the work authorized under this general permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical Museum, Post Office Box 1026, Harrisburg, Pennsylvania 17108-1026.

14. *Department Inspection*—As a condition of use of this general permit, and of the owner's authority to conduct the activities authorized by this general permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and criteria of the general permit. This general permit condition is referenced in accordance with section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16), and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

15. *Activities not in Accordance with the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation, or maintenance of a project has violated the terms or criteria of this general permit or of this chapter, the Department may take such actions, legal or administrative, that it may deem to be appropriate.

16. *Structure Removal*—The owner(s) shall remove all or any portion of the agricultural structures upon written notification to the owner by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this general permit or this chapter.

17. *Property Rights*—This general permit does not convey any property rights, either in real estate or material, or in any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or Local laws or regulations.

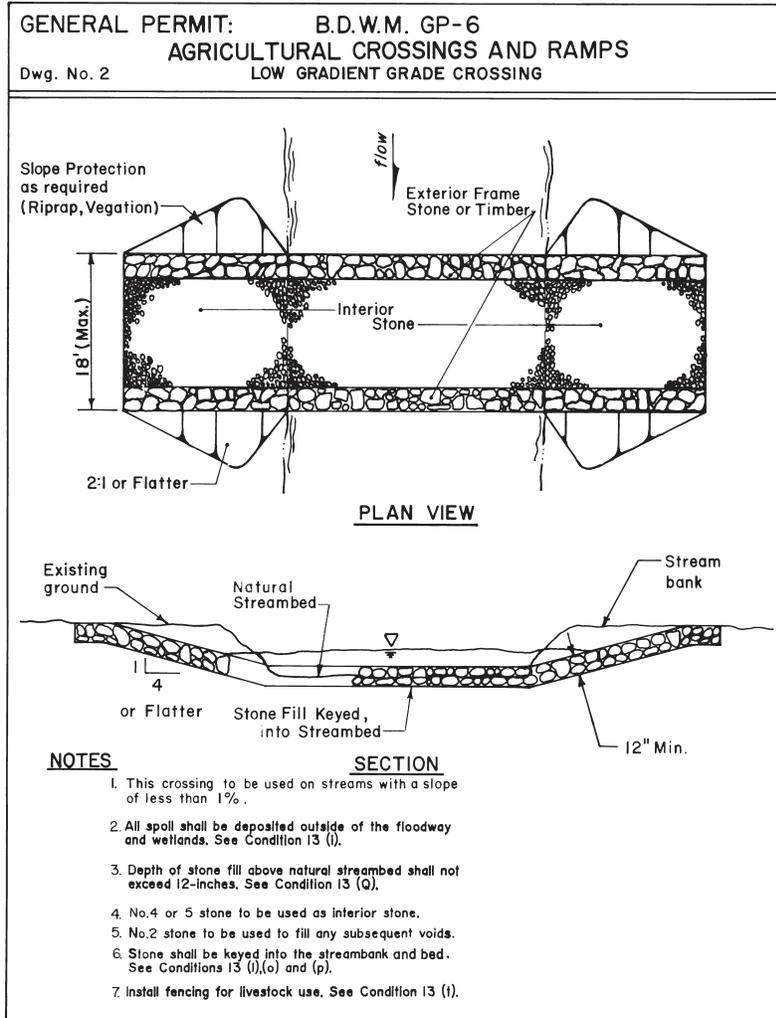
18. *Other Approvals*—The owner(s) shall secure all other approvals that may be necessary under Federal, State, or Local laws or regulations.

19. *Fish Commission Notification*—The owner(s) shall notify the Pennsylvania Fish Commission's Regional Law Enforcement Field Office Supervisor (see Exhibit "A") responsible for the county where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish Commission.

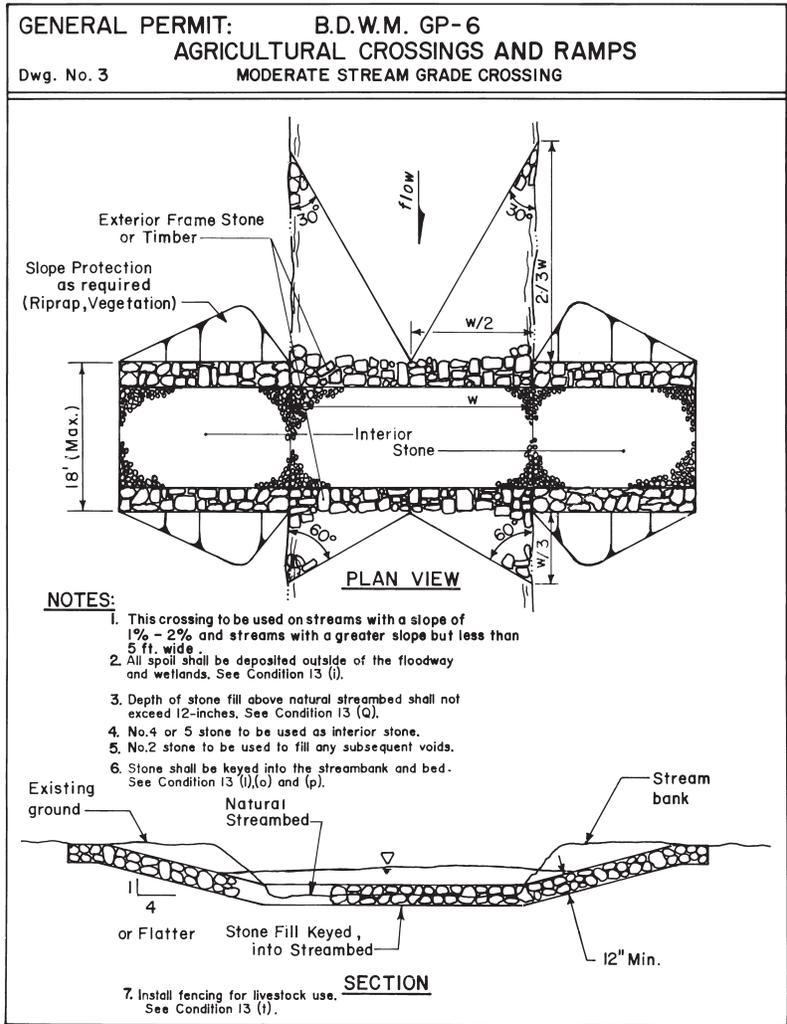
20. *Erosion and Sediment Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to construction an Erosion and Sediment Pollution Control Plan must be reviewed and determined adequate by the County Conservation District in which the activities are proposed and implemented prior to, during, and after construction. The County Conservation District shall be notified 10 days prior to the start of construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site at all times.

21. *Utilization of General Permit BDWM-GP-8; Temporary Road Crossings*—Temporary road crossings of streams and causeways that are necessary for equipment to move back and forth across a stream and located adjacent to an agricultural crossing or ramp are authorized by and must be constructed in accordance with BDWM-GP-8. The owner shall indicate utilization of GP-8 on Exhibit C in the space provided. Owners constructing temporary road crossings in those areas where GP-8 is not authorized must apply for a Water Obstruction and Encroachment Permit for those road crossings.



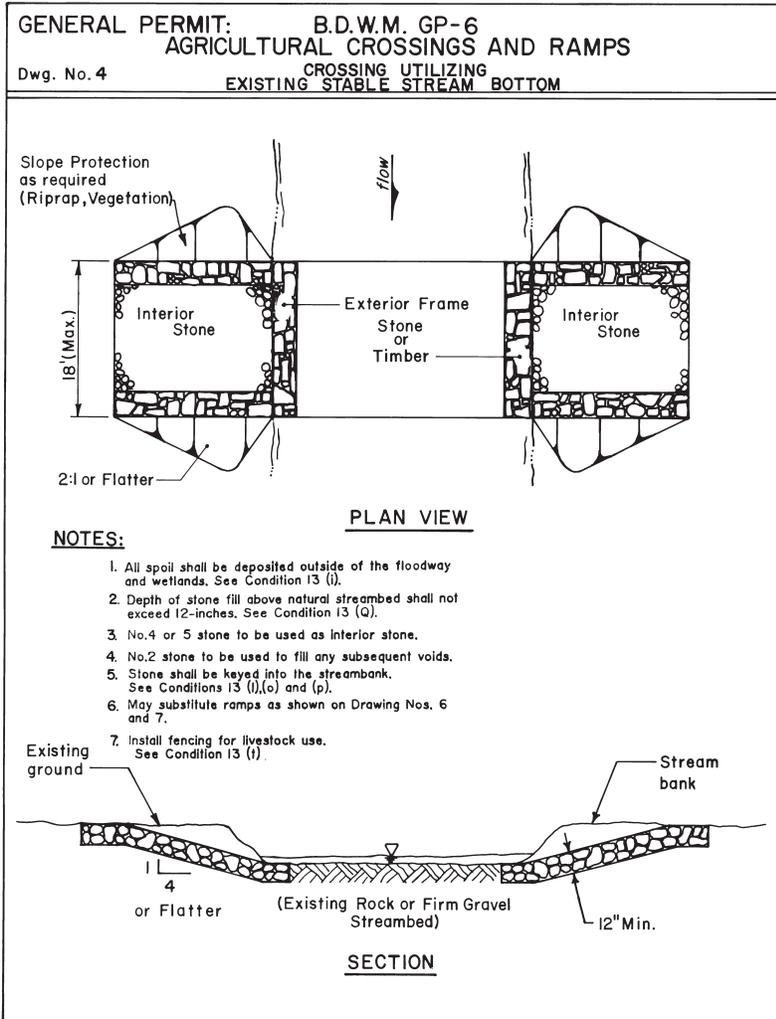


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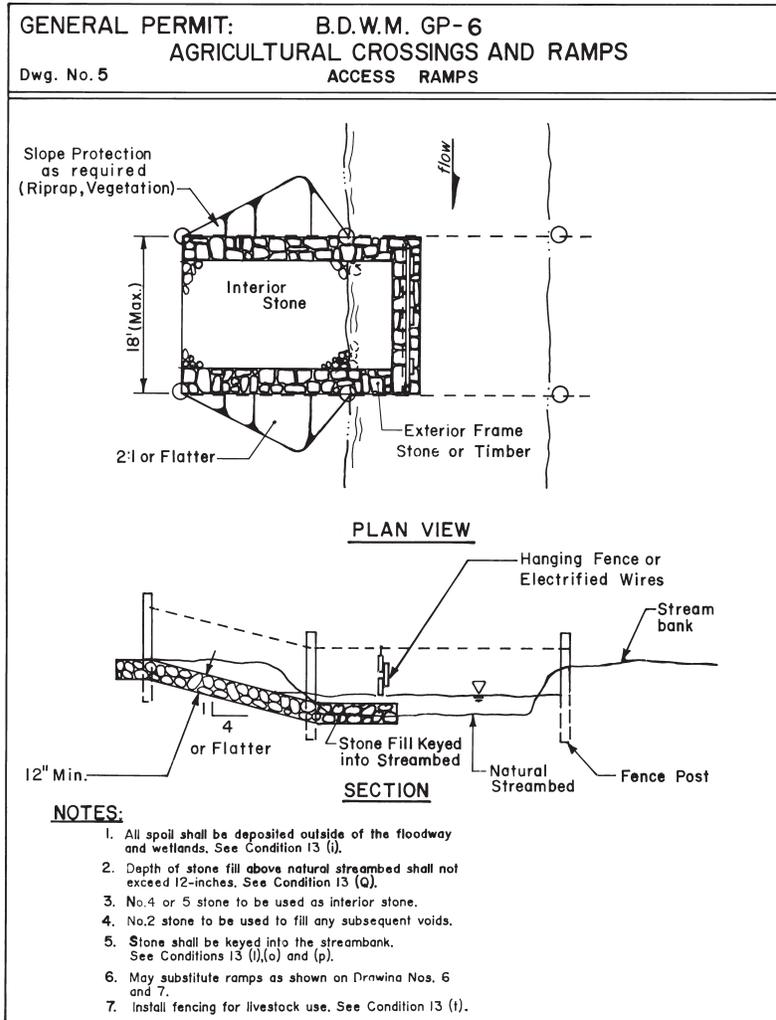


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(207859) No. 255 Feb. 96

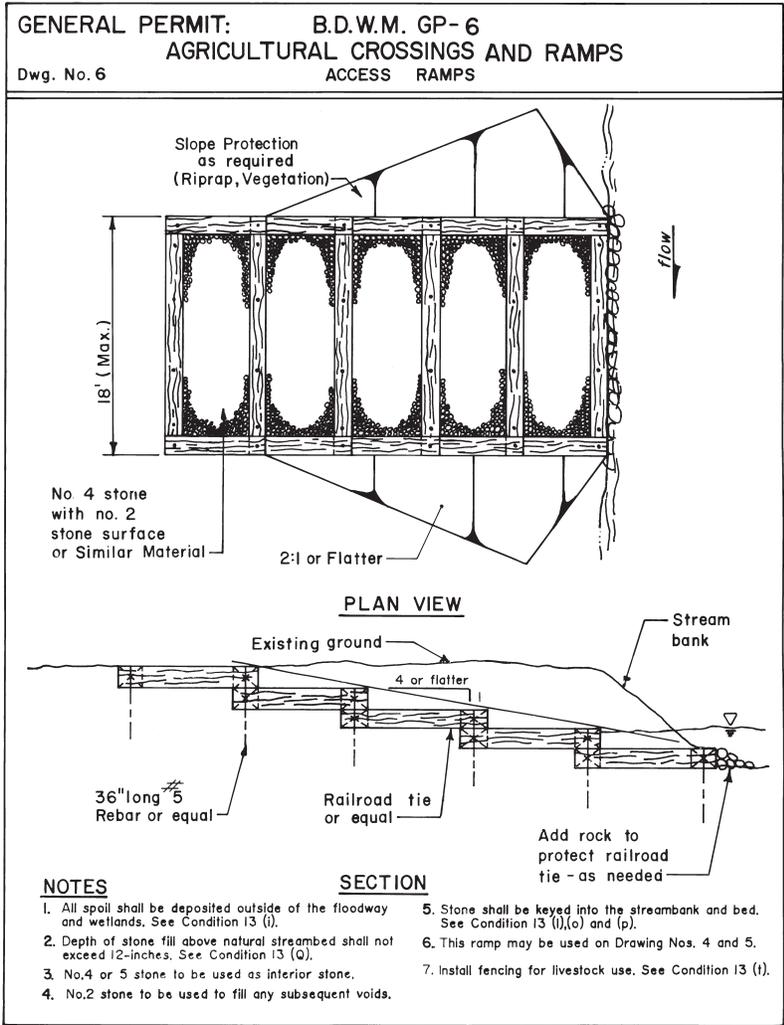


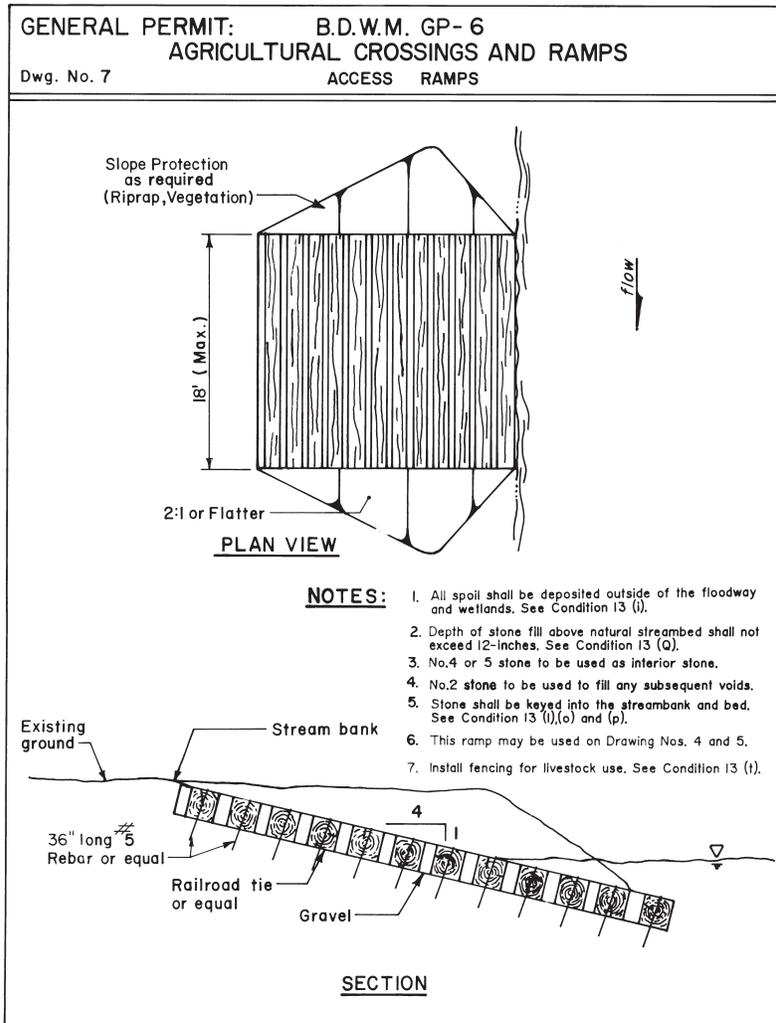
105-204



105-205

(207861) No. 255 Feb. 96





105-207

(207863) No. 255 Feb. 96

**EXHIBIT A**  
**FISH COMMISSION'S OFFICES**

*Headquarters Address**County Responsibility**NORTHWEST REGION*

Regional Supervisor P. O. Box 349 1281 Otter Street Franklin, Pa. 16323 (814) 437-5774	Butler, Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren
---	--

*SOUTHWEST REGION*

Regional Supervisor R. D. 2, Box 39 Somerset, Pa. 15501-9311 (814) 445-8974	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
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*NORTHCENTRAL REGION*

Regional Supervisor Box 187 (Fishing Creek Road) Lamar, Pa. 16848 (717) 726-6056	Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Northumberland, Potter, Snyder, Tioga and Union
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*SOUTHCENTRAL REGION*

Regional Supervisor 1704 Pine Road Newville, Pa. 17241 (717) 486-7087	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry and York
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*SOUTHEAST REGION*

Regional Supervisor Box 8 Elm, Pa. 17521 (717) 626-0228	Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill
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*NORTHEAST REGION*

Regional Supervisor Box 88 Sweet Valley, Pa. 18656 (717) 477-5717	Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Pike, Sullivan, Susquehanna, Wayne and Wyoming
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105-208

*DIVISION OF  
ENVIRONMENTAL SERVICES*

450 Robinson Lane  
Bellefonte, Pa. 16823-9616  
(814) 359-5145

*DIVISION OF PROPERTY SERVICES*

450 Robinson Lane  
Bellefonte, Pa. 16823-9616  
(814) 359-5185

**EXHIBIT B  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF DAMS AND WATERWAY MANAGEMENT**

*Area Office*

*County Responsibility*

Southcentral Area Office  
Room 149, One Ararat  
Boulevard  
P. O. Box 8554  
Harrisburg, Pa. 17105-8554  
(717) 541-7901

Adams, Bedford, Blair, Cumberland,  
Dauphin, Franklin, Fulton, Huntingdon,  
Juniata, Lancaster, Lebanon, Mifflin, Perry  
and York

Southeast Area Office  
Suite 6010, Lee Park  
555 North Lane  
Conshohocken, Pa. 19428  
(215) 832-6340

Berks, Bucks, Carbon, Chester, Delaware,  
Lehigh, Northampton, Montgomery,  
Philadelphia and Schuylkill

Southwest Area Office  
R. D. # 1, 482, Route 30  
Clinton, Pa. 15026  
(412) 899-2377

Allegheny, Armstrong, Beaver, Butler,  
Cambria, Fayette, Greene, Indiana,  
Lawrence, Somerset, Washington and  
Westmoreland

Northwest Area Office  
190 Adams Road  
Jamestown, Pa. 16134  
(412) 932-3162

Clarion, Clearfield, Crawford, Elk, Erie,  
Forest, Jefferson, McKean, Mercer, Venango  
and Warren

Northeast Area Office  
Suite 203, Cross Valley Centre  
667 North River Street  
Plains, Pa. 18705-1099  
(717) 826-5485

Bradford, Columbia, Lackawanna, Luzerne,  
Monroe, Pike, Sullivan, Susquehanna,  
Wayne and Wyoming Area Office

105-209

*Area Office*  
 Northcentral Area Office  
 200 Pine Street  
 Williamsport, Pa. 17701  
 (717) 327-3574

*County Responsibility*  
 Cameron, Centre, Clinton, Lycoming,  
 Montour, Northumberland, Potter, Snyder,  
 Tioga and Union

CENTRAL OFFICE  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7900

**EXHIBIT C**

Notification to Use  
 BDWM-GP-6

Agricultural Crossings and Ramps

I/We, \_\_\_\_\_  
 (owner name(s))

hereby notify the Bureau of Dams and Waterway Management of our intent to install

\_\_\_\_\_  
 (description of structure)

across/along \_\_\_\_\_

(name of stream or body of water)

at a point \_\_\_\_\_

(describe location)

in \_\_\_\_\_, \_\_\_\_\_  
 (municipality) (county)

I/We have attached a LOCATION MAP similar to that shown on Drawing No. 1 indicating where the agricultural crossing or ramp will be installed.

I/We certify that a copy of this notification was sent this day  
 \_\_\_\_\_ to \_\_\_\_\_, and  
 (date) (municipality)

\_\_\_\_\_ where the work will be performed.  
 (county)

Signed: \_\_\_\_\_  
 (owner or authorized representative)

\_\_\_\_\_  
 (owner address)

\_\_\_\_\_  
 (owner telephone number)

I/We hereby notify the Bureau that BDWM-GP-8, Temporary Road Crossings will also be utilized during the installation of the agricultural crossing or ramp.

Signed: \_\_\_\_\_

Send to one of the addresses on Exhibit B.

**Source**

The provisions of this Appendix F adopted February 8, 1991, effective February 9, 1991, 21 Pa.B. 547.

**APPENDIX G  
MINOR ROAD CROSSINGS; GENERAL  
PERMIT BDWM-GP-7**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes by General Permit, (1) the construction, operation and maintenance of a minor road crossing across wetlands which disturbs less than 0.1 acre of wetlands, (2) the construction, operation and maintenance of a minor road crossing across a stream where the watershed drainage area is 1.0 square mile or less and (3) the removal of an existing minor road crossing across a stream where the drainage area is 1.0 square mile or less. This authorization is pursuant to section 7(b) of the Dam Safety and Encroachments Act (32 P. S. § 693.7(b)) and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits). This General Permit is subject to the terms and conditions set forth below.

2. *Denial of Authorization*—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this General Permit for any project which the Department determines to present a risk to life, property or the environment or otherwise would not be adequately regulated by the provisions of this General Permit.

3. *Definitions*—The following terms as used in this General Permit shall have the following meaning:

*Body of water*—Any natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Bridge*—A structure and its appurtenant works erected over the regulated waters of this Commonwealth.

*Causeway*—A roadway embankment constructed in or across a wetland.

*Construct*—To erect, build, place or deposit including preliminary preparation of a site for construction.

*Culvert*—A structure with appurtenant works which carries a stream under or through an embankment or fill.

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*Dredge*—To remove sand, gravel, mud or other materials from the beds of regulated waters of this Commonwealth.

*Existing minor road crossing*—A bridge or culvert and fill crossing of a stream where the watershed drainage area is 1.0 square mile or less.

*FEMA*—The Federal Emergency Management Agency.

*Fill*—Sand, gravel, earth or other material placed or deposited so as to form an embankment or raise the elevation of the land surface. The term includes material used to replace an area with aquatic life with dry land or to change the bottom elevation of a regulated water of this Commonwealth.

*Flood*—A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers or other waters of this Commonwealth.

*Floodway*—The channel of the water course and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

*Ford*—A road crossing of a stream utilizing the existing streambed.

*Maintenance dredging*—Dredging conducted as part of the construction of a dam, water obstruction, or encroachment, and periodic dredging conducted in order to:

- (i) maintain adequate depths for navigation;
- (ii) assure proper passage of ice and flood flows; or
- (iii) preserve the safety, stability and proper operation of the facility.

*Minor road crossing*—A road constructed across a wetland where the length of the crossing is less than 100 feet and the total wetland area disturbed is less than 0.1 acre, or a road constructed across a stream and an adjacent wetland utilizing a bridge, culvert, or ford crossing where the watershed drainage area is 1.0 square mile or less and the total wetland area disturbed is less than 0.1 acre.

*Owner*—A person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*Person*—A natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and a department, board, commission or authority of the Commonwealth.

*Regulated waters of the Commonwealth*—Water courses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Replacement wetlands*—Artificially created wetlands to replace those wetlands destroyed by the construction of a minor road crossing.

*Stocked trout streams*—Streams classified as approved trout waters by the Pennsylvania Fish Commission. Classification shall be verified by contacting the Pennsylvania Fish Commission's Regional Office or Division of Environmental Services (see Exhibit A).

*Stream*—A watercourse.

*Stream enclosure*—Any bridge, culvert or other structure in excess of 100 feet in length upstream to downstream which encloses any regulated water of this Commonwealth.

*Submerged lands of this Commonwealth*—Waters and permanently or periodically inundated lands owned by the Commonwealth, including lands in the beds of navigable lakes and rivers and beds of streams declared public highways which are owned and held in trust by the Commonwealth.

*Watercourse*—A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Watershed*—A region or area contributing to the supply of a stream or lake; drainage area, drainage basin or catchment area.

*Wetlands*—Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas. The term includes but is not limited to wetland areas listed in the State Water Plan, United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan, and any wetland area designated by a river basin commission.

*Wild trout streams*—Streams classified as supporting reproducing trout populations by the Fish Commission. Classifications shall be verified by contacting the Fish Commission's Regional Office or the Division of Environmental Services (see Exhibit A).

4. *Submerged Lands of this Commonwealth*—This General Permit shall not be effective to authorize any project over, across or occupying submerged lands of this Commonwealth until the owner has obtained a license from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of The Administrative Code of 1929 (71 P. S. § 194) or other applicable laws. Upon receipt of notification from the owner, the Department will review the project to determine if its location is over, across or occupies submerged lands of the Commonwealth.

5. *Specific Areas and Activities Where General Permit Does Not Apply*—This General Permit does not apply in and is not valid in the following situations:

- a. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historic Places or the National Register of Historic Places.
  - b. Local historical sites officially approved or recognized by a municipality.
  - c. Sites identified in the latest published version of the National Registry of Natural Landmarks.
  - d. Areas in or within 100 feet of a watercourse or body of water designated as a National or State Wild or Scenic river in accordance with the National Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29).
  - e. Stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31, and Lake Erie tributaries from September 1 through December 1 unless written approval is obtained from the Fish Commission's Division of Environmental Services. (See Exhibit A).
  - f. Stream enclosures.
  - g. Streams or water bodies designated as exceptional value waters as defined in Chapter 93 (relating to water quality standards).
  - h. Stream channel crossing(s) where the watershed drainage area upstream of the crossing is greater than 1 square mile.
  - i. A stream channel and the adjoining floodplain which is delineated as a floodway on Flood Insurance Maps that are part of a Flood Insurance Study prepared by FEMA. These maps are available from the local municipality.
  - j. Wetland crossings where the extent of wetland impact for an individual minor road crossing is greater than .1 acre and the cumulative wetland impact for all minor road crossings installed by an owner on an individual property or project including phased projects is greater than .25 acre. A project shall include the aggregate of all stages of development and all parcels within a subdivision plan, which are under the control of the registrant.
  - k. Wetland crossings where the wetlands serve as habitat for fauna or flora listed as "threatened" or "endangered" under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Sites for minor road crossings may be checked through the Pennsylvania Natural Diversity Inventory by contacting the Bureau of Forestry, Division of Advisory Services, Post Office Box 8552, Harrisburg, Pennsylvania 17105-8552 or any of the offices listed on Exhibit B.
6. *Other Permits*—Nothing in this General Permit relieves the owner(s) of the obligation of complying with all Federal, Interstate Compacts and State laws, regulations and standards for the construction, operation or maintenance of the minor road crossings.
7. *Registration of Proposed Use of General Permit*—Prior to construction, the owner(s) shall submit Exhibit C along with the wetland delineation data forms completed in accordance with current procedures, the required location map, and

a site plan showing the boundaries of the wetland delineation and the replacement wetlands to the Bureau of Dams and Waterway Management (See Exhibit B). A copy of Exhibit C shall also be sent to the municipality and county in which the work will be performed. The owner may *not* begin work until he has notified the Bureau of Dams and Waterway Management and received an acknowledgement of that notification. The Department's acknowledgement letter serves as registration to use this General Permit.

8. *Change of Ownership*—If there is a change in ownership of a minor road crossing installed in accordance with this General Permit, the new owner is required to register the crossing with the Department in accordance with Item 7.

9. *Fees*—There is no fee required for a project authorized under this General Permit.

10. *Effective Time Period*—This General Permit will remain in effect indefinitely, unless specifically modified, suspended or revised by the Department.

11. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

12. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally Licensed Project, and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States, Commonwealth of Pennsylvania, and its Political Subdivisions in the public interest.

13. *Conditions.*

a. The construction of a minor road crossing shall be completed within 3 years of the date of the Department's acknowledgement letter. If all construction is not completed within this time frame, the owner(s) shall remove all of the minor road crossing and restore the watercourse and floodplain to their former conditions.

b. Minor road crossings shall not create or constitute a risk to life, property or the environment.

c. No fill shall be placed in any floodway, watercourse, or body of water, including approaches to the minor road crossing, except as specifically authorized in this General Permit.

d. Each minor road crossing shall be constructed in such a manner so that there is no interference with the migration of fish.

e. Plans, specifications and reports for bridges and culverts across a stream which are to be used by the general public such as an access to an industrial, commercial or residential development, etc., shall be prepared by a registered professional engineer and shall be affixed with his seal and his certification which shall read as follows:

"I (name) do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifi-

cations, and reports have been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the Rules and Regulations of the Department of Environmental Resources.”

f. A project which disturbs wetlands requires (1) a wetland delineation performed in accordance with current procedures and (2) a mitigation plan prepared and affixed with a statement which shall read as follows:

“I (name) do hereby state to the best of my knowledge, information and belief that the information contained in the plans, specifications and reports have been prepared in accordance with accepted environmental practices, is true and correct, and is in conformance with Chapter 105 of the Rules and Regulations of the Department of Environmental Resources.”

g. Bridges and culverts shall be of sufficient width and size so as not to narrow the existing stream channel.

h. The crossing shall be designed to prevent the restriction of and to withstand expected high flows. Bridge and culvert crossings shall have a waterway opening sufficient to adequately discharge, at a minimum, the bank-full flow of the watercourse or stream. The waterway opening shall be large enough to minimize and confine any backwater to the owner’s property.

i. Headwalls, wingwalls and riprap shall be installed for bridges and culverts as required to pass flood flows without loss of stability.

j. Bridges and culverts shall not increase velocity or direct flow so as to result in erosion of stream bed and banks.

k. Bridges and culverts shall be inspected by the owner on a regular basis to provide for continued operation and maintenance during the lifetime of the structure.

l. Bridges and culverts shall be kept open and functioning at all times by maintaining the waterway opening free of debris and other obstructions. Maintenance shall be performed in accordance with the “Standards for Channel Cleaning at Bridges and Culverts”. Copies of this document are available from the offices noted in Exhibit B.

m. Approaches to bridges, culverts and fords should be constructed at original grades where possible. Where necessary, depth of fill in the approaches shall be minimized to allow overflow of the roadway during periods of high water.

n. Bridges shall have abutments set well into the stream banks in such a manner as to assure minimal increase in flood elevations and no encroachment into the stream.

o. Bridges shall have abutments aligned with the flow of the stream. The use of wing walls at the upstream side of the bridge to assist in directing flood flows through the bridge opening is recommended.

- p. Bridges having piers shall be designed and constructed to offer the least obstruction to the passage of water and ice, consistent with safety.
- q. Culverts installed in stream channels shall be aligned with the stream flow.
- r. Culverts shall be installed with the invert 6 inches below natural streambed and so that the gradient of the invert shall not deviate from that of the natural streambed.
- s. The length of culverts installed shall be only that which is necessary to provide adequate road width with stable side slopes.
- t. Spacing for multiple culvert installation in a stream channel shall be in accordance with the then current manufacturer's specifications.
- u. Depth of fill covering culverts shall not exceed the minimum cover required by the then current manufacturer's specifications for the intended use of the crossing.
- v. The removal of existing minor road crossings shall be completed in the following manner: (1) crossing is removed in its entirety, (2) the original stream gradient is restored and (3) the stream banks are stabilized.
- w. Fords which are excavated or graded through stream banks must be properly stabilized.
- x. Crossings of wetlands shall be avoided if an alternate location is possible. If the crossing of wetlands cannot be avoided, the crossing must be undertaken at the narrowest point of the wetland and shall not exceed 100 feet in length and .1 acre of disturbance.
- y. The total wetland impact for all minor road crossings installed by an owner on an individual property or project including phased projects shall not exceed 0.25 acre. A project shall include the aggregate of all stages of development and all parcels within a subdivision plan, which are under the control of the registrant.
- z. All wetlands impacted through the use of this General Permit must be replaced adjacent to or in the immediate proximity of the minor road crossing and at a ratio of 1:1 for function, value and areal extent (acreage).
- aa. The use of this General Permit shall not prejudice any future Departmental decisions related to regulated activities on this property.
- bb. Any archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historic and Museum Commission, Post Office Box 1026, Harrisburg, Pennsylvania 17108-1026, telephone (717) 787-2891.
- cc. Owner(s) shall investigate for drinking water intakes or reservoirs for public water supplies and permitted public bathing beaches within 5 miles downstream of the site of the minor road crossing. Written notice shall be given to operators of any such intakes or reservoirs or public bathing beaches at least 10 days prior to construction of the minor road crossing. Owner(s) must notify

operators immediately and no longer than 1 hour after an occurrence at the crossing site which results in a release of suspended solids and turbidity to the stream.

14. *Department Inspection*—As a condition of use of this General Permit and of the owner's authority to conduct the activities authorized by this General Permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure the project is constructed, operated or maintained in accordance with the terms and conditions of the General Permit. This General Permit condition is included under section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16), and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

15. *Activities not in Accordance with the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or conditions of this General Permit or this chapter, the Department may take such actions, legal or administrative, that it may deem to be appropriate, including revocation of the General Permit with regard to the violation.

16. *Structure Removal*—The owner(s) shall remove all or any portion of the minor road crossing upon written notification to the owner by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this General Permit or this chapter.

17. *Property Rights*—This General Permit does not convey any property rights, either in real estate or material, or any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

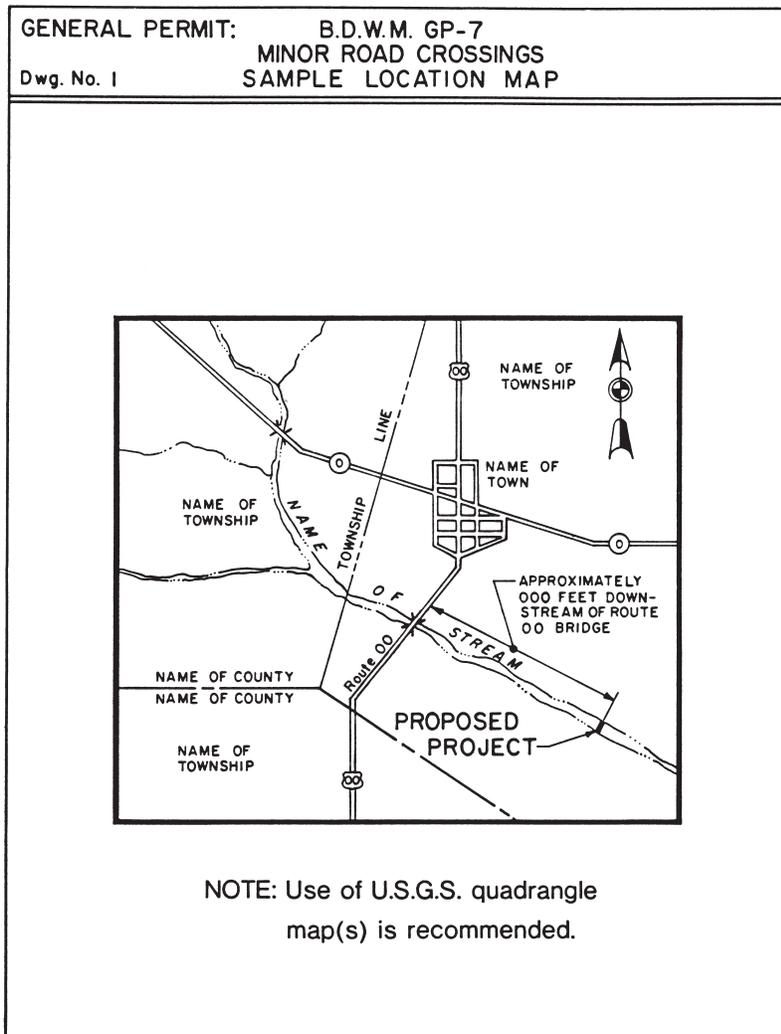
18. *Other Approvals*—The owner(s) shall secure all other approvals that may be necessary under Federal, State or local laws or regulations.

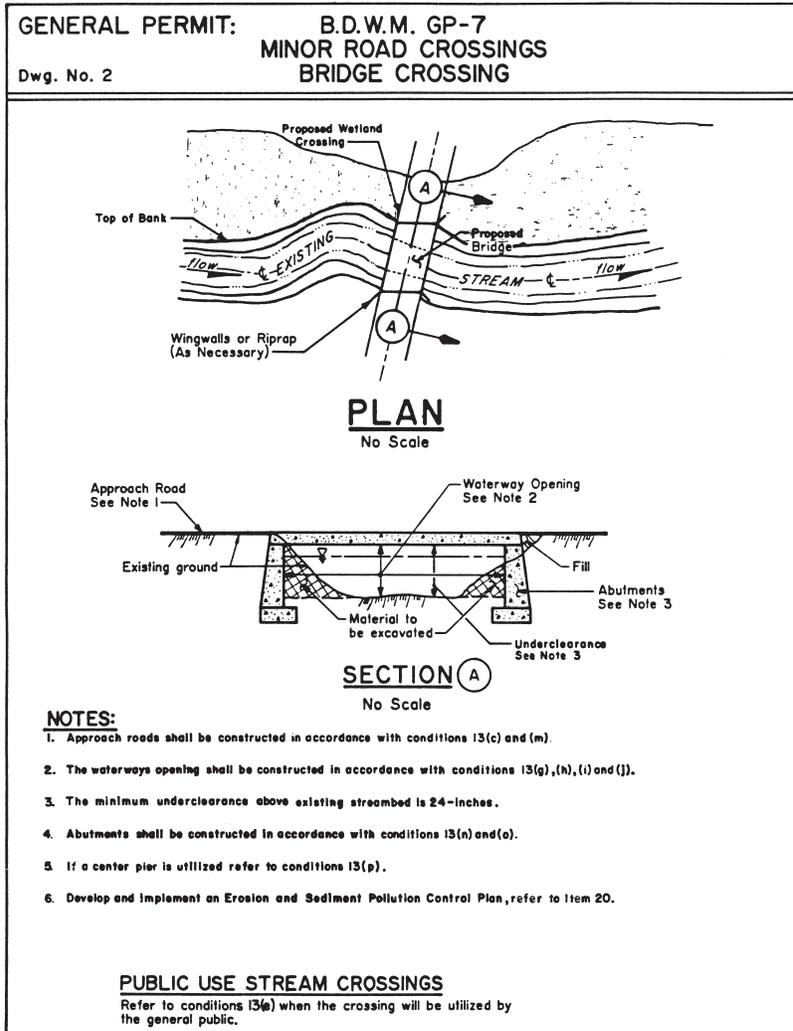
19. *Fish Commission Notification*—The owner(s) shall notify the Fish Commission's Regional Field Office Supervisor (see Exhibit A) responsible for the County where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish Commission.

20. *Erosion and Sedimentation Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to

construction, an Erosion and Sediment Pollution Control Plan must be reviewed and determined to be adequate by the County Conservation District in which the activities are proposed and implemented prior to, during and after construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site at all times.

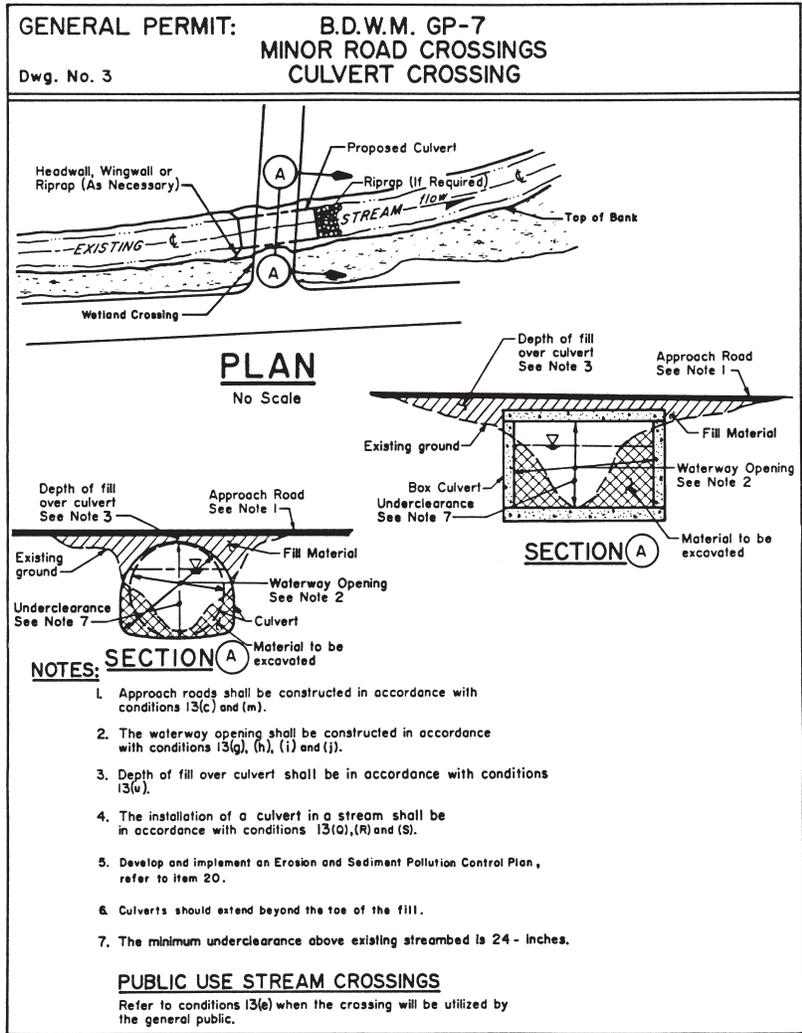
EXHIBIT A

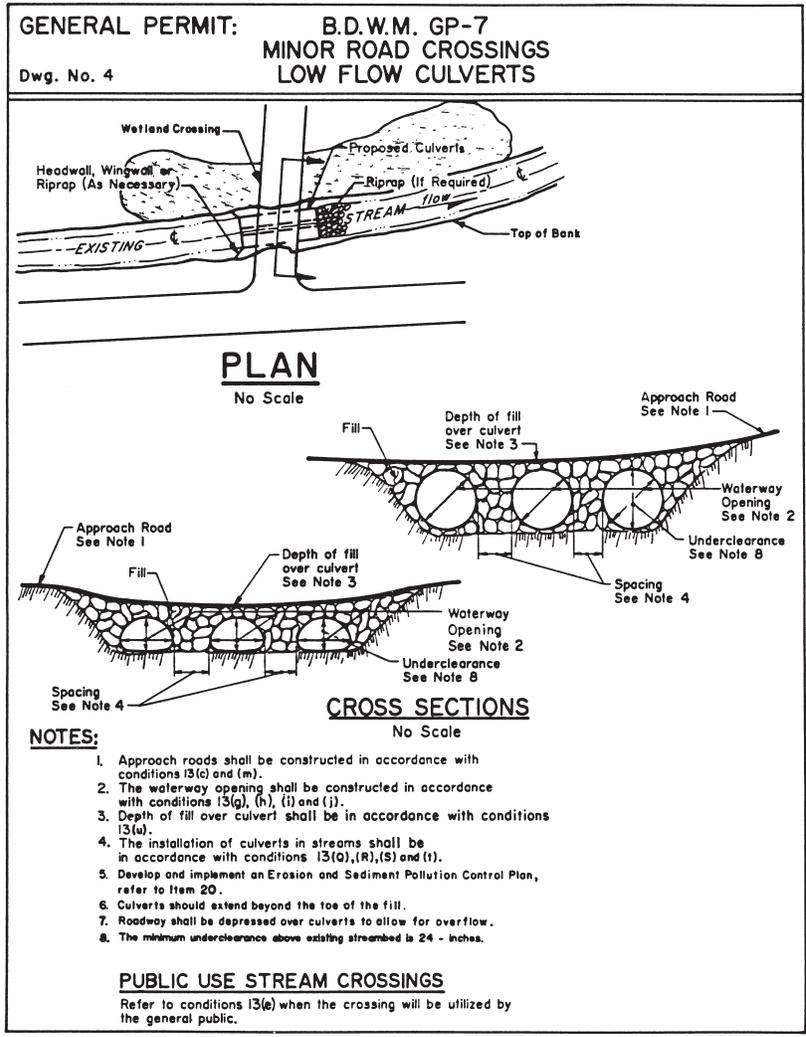


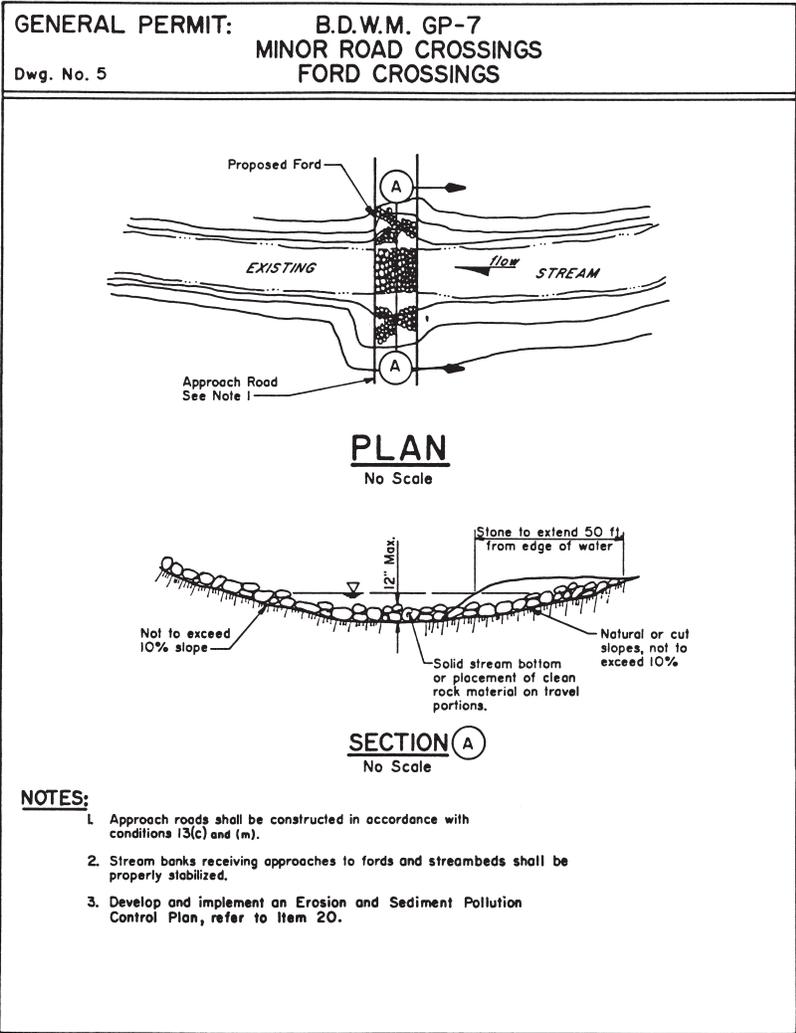


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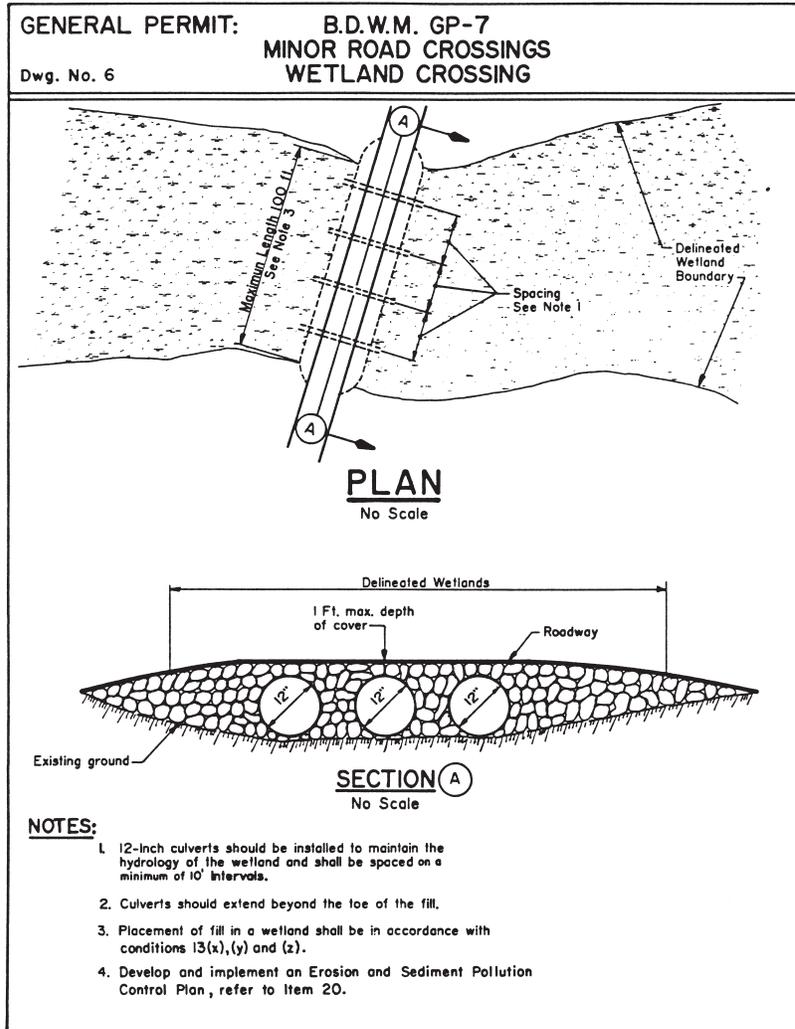
(207877) No. 255 Feb. 96







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(207881) No. 255 Feb. 96

**FISH COMMISSION'S OFFICES***Headquarters Address**County Responsibility**NORTHWEST REGION*

Regional Supervisor P. O. Box 349 1281 Otter Street Franklin, Pa. 16323 (814) 437-5774	Butler, Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren
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*SOUTHWEST REGION*

Regional Supervisor R. D. 2, Box 39 Somerset, Pa. 15501-9311 (814) 445-8974	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
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*NORTHCENTRAL REGION*

Regional Supervisor Box 187 (Fishing Creek Road) Lamar, Pa. 16848 (717) 726-6056	Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Northumberland, Potter, Snyder, Tioga and Union
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*SOUTHCENTRAL REGION*

Regional Supervisor 1704 Pine Road Newville, Pa. 17241 (717) 486-7087	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry and York
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*SOUTHEAST REGION*

Regional Supervisor Box 8 Elm, Pa. 17521 (717) 626-0228	Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill
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*NORTHEAST REGION*

Regional Supervisor Box 88 Sweet Valley, Pa. 18656 (717) 477-5717	Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Pike, Sullivan, Susquehanna, Wayne and Wyoming
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*DIVISION OF ENVIRONMENTAL SERVICES*

450 Robinson Lane  
 Bellefonte, Pa. 16823-9616  
 (814) 359-5145

**EXHIBIT B**  
**DEPARTMENT OF ENVIRONMENTAL RESOURCES**  
**BUREAU OF DAMS AND WATERWAY MANAGEMENT**

*Area Office**County Responsibility*

Southcentral Area Office  
 One Ararat Boulevard  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7901

Adams, Bedford, Blair, Cumberland,  
 Dauphin, Franklin, Fulton, Huntingdon,  
 Juniata, Lancaster, Lebanon, Mifflin, Perry  
 and York

Southeast Area Office  
 Suite 6010, Lee Park  
 555 North Lane  
 Conshohocken, Pa. 19428  
 (215) 832-6340

Berks, Bucks, Carbon, Chester, Delaware,  
 Lehigh, Northampton, Montgomery,  
 Philadelphia and Schuylkill

Southwest Area Office  
 482 Route 30  
 R. D. 1  
 Clinton, Pa. 15026  
 (412) 899-2377

Allegheny, Armstrong, Beaver, Butler,  
 Cambria, Fayette, Greene, Indiana,  
 Lawrence, Somerset, Washington and  
 Westmoreland

Northwest Area Office  
 190 Adams Road  
 Jamestown, Pa. 16134  
 (412) 932-3162

Clarion, Clearfield, Crawford, Elk, Erie,  
 Forest, Jefferson, McKean, Mercer, Venango  
 and Warren

Northeast Area Office  
 Cross Valley Centre, Suite 203  
 667 North River Street  
 Plains, Pa. 18705-1099  
 (717) 826-5485

Bradford, Columbia, Lackawanna, Luzerne,  
 Monroe, Pike, Sullivan, Susquehanna,  
 Wayne and Wyoming

Northcentral Area Office  
 200 Pine Street  
 Williamsport, Pa. 17701  
 (717) 327-3574

Cameron, Centre, Clinton, Lycoming,  
 Montour, Northumberland, Potter, Snyder,  
 Tioga and Union

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*BUREAU OF DAMS AND WATERWAY MANAGEMENT*  
*CENTRAL OFFICE*  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7900

**EXHIBIT C**

Notification to Use  
 BDWM-GP-7  
 Minor Road Crossings

I/We, \_\_\_\_\_  
 (owner name(s))

hereby notify the Bureau of Dams and Waterway Management of our intent to install \_\_\_\_\_

\_\_\_\_\_  
 (description of crossing; bridge, culvert, etc.)

in accordance with the drawings and conditions of this General Permit at a point \_\_\_\_\_

\_\_\_\_\_  
 (describe location)

along \_\_\_\_\_  
 (name of stream, body of water or wetland)

in \_\_\_\_\_, \_\_\_\_\_  
 (municipality) (county)

I/We have attached a LOCATION MAP similar to that shown on the Drawing No. 1 indicating where the minor road crossing will be installed. Also, I/we have attached the site plan and delineation data sheets as required by Item 7.

I/We certify that a copy of this notification was sent this day \_\_\_\_\_  
 (date)

\_\_\_\_\_ to \_\_\_\_\_ and \_\_\_\_\_  
 (municipality) (county)

where the work will be performed.

Signed: \_\_\_\_\_  
 (owner or authorized representative)

\_\_\_\_\_  
 (typed or printed signature)

\_\_\_\_\_  
 (owner address)

\_\_\_\_\_

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(owner telephone number)

4/91

Send to one of the addresses on Exhibit B.

**Source**

The provisions of this Appendix G adopted April 12, 1991, effective April 13, 1991, 21 Pa.B. 1607.

**APPENDIX H**  
**TEMPORARY ROAD CROSSINGS;**  
**GENERAL PERMIT BDWM-GP-8**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes, by General Permit, subject to the terms and criteria set forth below, the construction, operation and maintenance of temporary road crossings across regulated waters of this Commonwealth, including wetlands, where no practicable alternatives exist. This authorization is under section 7(b) of the Dam Safety and Encroachments Act (32 P. S. § 693.7(b)), and the rules and regulations promulgated thereunder at §§ 105.441—105.449 (relating to general permits). This General Permit is subject to the terms and conditions set forth below.

2. *Denial of Authorization*—The Department has the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this General Permit for any project which the Department determines to have a significant effect on the safety and protection of life, health, property or the environment or otherwise would not be adequately regulated by the provisions of this General Permit.

3. *Definitions*—The following terms as used in this General Permit shall have the following meanings:

*Body of Water*—A natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Bridge*—A single span structure erected from top of bank to top of bank carrying a temporary roadway over a stream.

*Causeway*—An embankment constructed partially across or along a stream.

*Culvert*—A structure with appurtenant works which carries a stream under or through an embankment or fill.

*Exceptional Value Wetlands*—Wetlands as defined at § 105.17(1) (relating to wetlands).

*Ford*—A road crossing of a stream utilizing the existing stream bed.

*Install*—To construct, place, lay or set in place.

*Owner*—A person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

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(207885) No. 255 Feb. 96

*Person*—Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivisions of the Commonwealth, receiver or trustee and any department, board, commission or authority of the Commonwealth.

*Regulated Waters of the Commonwealth*—Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Stocked Trout Stream*—A Stream classified as approved trout waters by the Fish and Boat Commission. For a list of stocked trout streams, the Fish and Boat Commission can be contacted at: Fish and Boat Commission, Bureau of Fisheries, Division of Fisheries Management, 450 Robinson Lane, Bellefonte, Pennsylvania 16823-9616.

*Stream*—A watercourse.

*Temporary Road Crossing*—A road installed for a period of time not to exceed 1 year across a wetland or across or along a stream utilizing a pipe culvert or a series of culverts, a bridge, a causeway or a ford.

*Watercourse*—A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Wild Trout Streams*—A stream classified as supporting naturally reproducing trout populations by the Fish and Boat Commission. For a list of wild trout streams, the Fish and Boat Commission can be contacted at: Fish and Boat Commission, Bureau of Fisheries, Division of Fisheries Management, 450 Robinson Lane, Bellefonte, Pennsylvania 16823-9616.

4. *Submerged Lands of this Commonwealth*—This General Permit shall not be effective to authorize any project over, across or occupying submerged lands of this Commonwealth until the owner has obtained a license from the Department authorizing the occupation of such submerged lands issued under section 15 of the Dam Safety and Encroachments Act (32 P. S. § 693.15), section 514 of The Administrative Code of 1929 (71 P. S. § 194), or other applicable laws. Upon receipt of notification from the owner, the Department will review the project to determine if its location is over, across or occupies submerged lands of the Commonwealth.

5. *Specific Areas Where General Permit Does Not Apply*—This General Permit does not apply and is not valid in the following areas:

a. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places.

b. Sites identified in the latest published version of the National Registry of Natural Landmarks.

c. Stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31 and Lake Erie tributaries from September 1 through December 1 unless written approval is obtained from the Fish and Boat Commission's Division of Environmental Services. See Exhibit A.

d. Sites which serve as habitat for fauna or flora listed as threatened or endangered under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Sites may be checked through the Pennsylvania Natural Diversity Inventory by contacting the Bureau of Forestry, Division of Advisory Services, Post Office Box 8552, Harrisburg, Pennsylvania 17105-8552 or any of the offices listed on Exhibit B.

6. *Other Permits*—Nothing in this General Permit relieves the owners of the obligation of complying with all Federal, Interstate Compact and State laws, regulations and standards for the construction, operation or maintenance of the temporary road crossings.

7. *Registration of Proposed Use of General Permit*—Prior to construction the owners shall submit Exhibit C along with the required location map to the Bureau of Dams and Waterway Management. See Exhibit B. A copy of Exhibit C shall also be sent to the municipality and county in which the work will be performed. The owner may not begin work until he has notified the Bureau of Dams and Waterway Management and received an acknowledgement of that notification.

8. *Change of Ownership*—If there is a change in ownership of a temporary road crossing installed in accordance with this General Permit, the new owner is required to register the crossing with the Department in accordance with Item 7.

9. *Fees*—There is no fee required for project authorized under this General Permit.

10. *Effective Time Period*—This General Permit will remain in effect indefinitely unless specifically modified, suspended or revised by the Department.

11. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

12. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally Licensed Project, and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States, the Commonwealth of Pennsylvania and its political subdivision in the public interest.

13. *Conditions*.

a. Crossings may remain installed for a period of time not to exceed 1 year from the date of the Department's acknowledgement (Item 7) unless extended in writing by the Department.

- b. The site of a temporary crossing, except fords, shall be restored to original topography and stabilized within 5 days after termination of its intended use or at the end of the 1 year period, whichever occurs first.
- c. Fords used as temporary crossings shall have the approaches adequately blocked and stabilized to prevent future use within 5 days after termination of its intended use or at the end of the 1 year period, whichever occurs first.
- d. Roads must cross all watercourses at a right angle to the stream, unless it is physically impossible to cross at a right angle to the stream.
- e. Fords are prohibited on all streams within high quality (HQ) and exceptional value (EV) watersheds as specified in Chapter 93 (relating to water quality standards), and in watersheds tributary to drinking water intakes or reservoirs for public water supply users, where the ford is within 2,000 feet upstream of such intake or reservoir.
- f. Skidding across fords is prohibited.
- g. Whenever the streambed at the site of a ford does not have a rock bottom, a layer of clean rock must be provided. This layer of clean rock must not obstruct the stream flow. In addition, the approaches must: (1) be maintained in a firm and stable condition and (2) enter the stream on less than a 10% grade within 50 feet of the stream with the flow and (3) exit the stream against the flow on the same grade and distance limitation as specified for the entrance.
- h. Culverts must provide a waterway area sufficient to adequately discharge the normal flow of the watercourse or stream, and shall be of sufficient length to extend beyond the toe of the clean rock fill.
- i. Culverts must be installed in such manner that overtopping of the roadway will occur within the stream channel. This can be accomplished by providing a depressed roadway embankment as shown on attached Drawings No. 3 and No. 4.
- j. A culvert having as large a diameter as possible must be provided to minimize placement of excessive fill and excavation of the stream banks. If the bank height prohibits a large diameter pipe culvert, the crossing could consist of a bridge or a series of culverts. The minimum size diameter culvert to be used is 12 inches.
- k. Road crossings involving a series of pipe culverts shall be installed with a minimum spacing as specified on attached Drawing No. 4.
- l. Road and causeway embankments shall consist of only clean rock material to prevent stream channel sedimentation during placement, removal and periods of overtopping.
- m. Bridges must be single span from top of bank to top of bank and structurally stable.
- n. Approach roads to temporary road crossings shall utilize original grades. However, clean rock material or gravel to a depth of 6 inches above original grade shall be utilized for approaches as necessary.

- o. Causeways may not extend streamward a distance greater than 1/2 the width of the stream channel.
- p. Temporary road crossings shall be kept open and functioning at all times by maintaining the crossings free of debris and other obstructions.
- q. The owner shall be responsible for any damages resulting from increased backwater caused by the temporary road crossing. The permittee shall remove the temporary road crossing in the event of high waters to prevent the increased backwater.
- r. Wetlands shall be identified and delineated in accordance with the Federal Manual for Identifying and Delineating Jurisdictional Wetlands dated 1989.
- s. Crossings of wetlands shall be avoided if an alternate location is possible. If the crossing of wetlands cannot be avoided, the crossing is permissible if it is located at the narrowest practicable point of the wetland and the length of the crossing within the wetland is less than 200 feet.
- t. The site of a wetlands crossing shall be stabilized by any appropriate means, including but not limited to, using removable, temporary mats, pads or other similar devices to insure minimization of impact on the wetlands ecology.
- u. Embankments for temporary roads across wetlands shall be installed to maintain the hydrology of the wetland.
- v. Any archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau for Historic Preservation, Historical and Museum Commission, Post Office Box 1026, Harrisburg, Pennsylvania 17120.
- w. Pollution of the waterway with harmful chemicals, fuels, oils, greases, bituminous material, acid and/or other harmful or polluting materials, is prohibited.
- x. Owners shall investigate for drinking water intakes or reservoirs for public water supplies within 5 miles downstream of the site of the temporary road crossing. Written notice shall be given to operators of any such intakes or reservoirs at least 10 days prior to construction of the temporary road crossing. Owners must notify public water supply operators immediately and no longer than 1 hour after an occurrence at the crossing site which results in the release of suspended solids and turbidity to the stream.
- y. Access roads should not approach the stream channel directly downslope, but should traverse the slope obliquely to prevent high velocity road drainage flows from directly entering the stream channel. Road drainage shall include proper erosion and sedimentation control measures; as referred to in item 20.

14. *Department Inspection*—As a condition of use of this General Permit, and of the owner's authority to conduct the activities authorized by this General Permit, the owner hereby authorizes and consents to allow authorized employes

or agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and conditions of the General Permit. This General Permit condition is included under section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16), and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

15. *Activities Not in Accordance with the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or conditions of this General Permit or this chapter, the Department may take such actions, legal or administrative, that it may deem to be appropriate, including revocation of the General Permit with regard to the violation.

16. *Structure Removal*—The owners shall remove all or any portion of the temporary road crossing upon written notification to the owners by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this General Permit or this chapter.

17. *Property Rights*—This General Permit does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

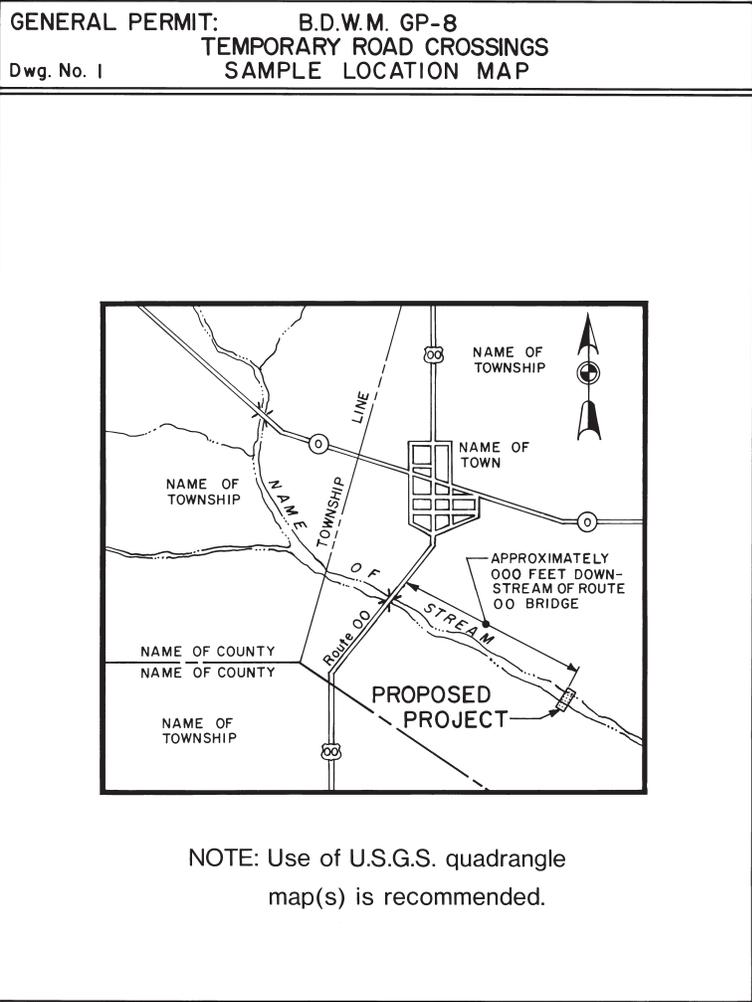
18. *Other Approvals*—The owners shall secure all other approvals that may be necessary under Federal, State or local laws or regulations.

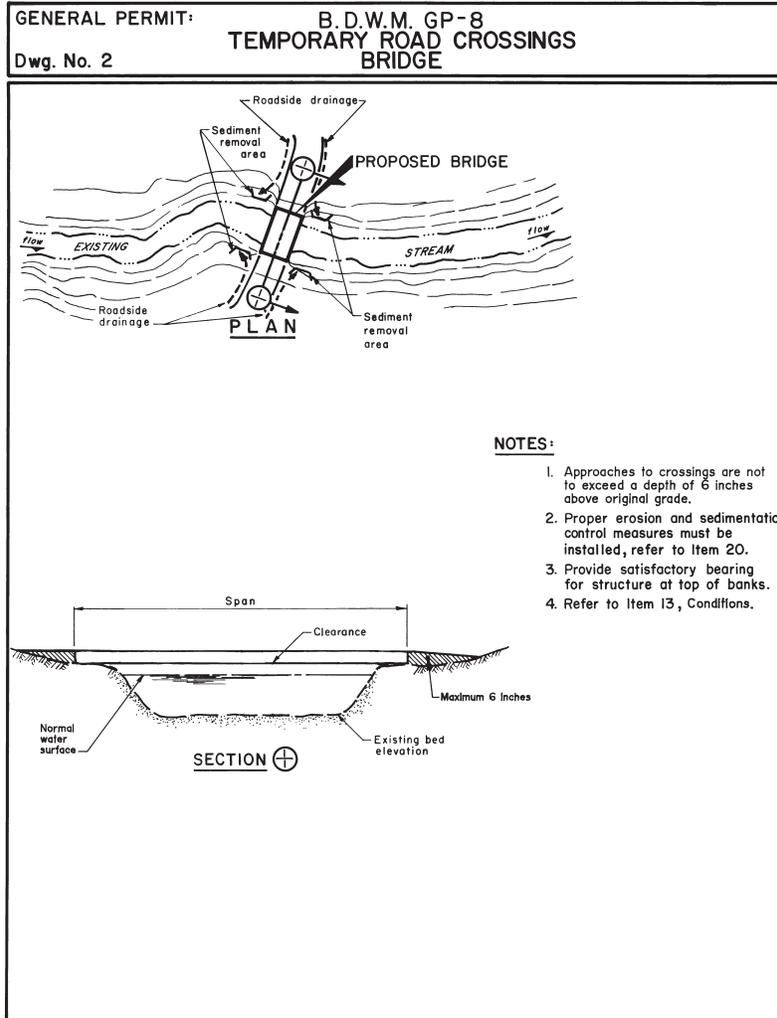
19. *Fish Commission Notification*—The owners shall notify the Fish and Boat Commission's Regional Field Office Supervisor, see Exhibit A, responsible for the County where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Fish and Boat Commission.

20. *Erosion and Sediment Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control). Prior to construction an Erosion and Sediment Pollution Control Plan must be reviewed and determined to be adequate by the County Conservation District in which the activities are proposed and implemented prior to, during and after construction.

The Project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site at all times.

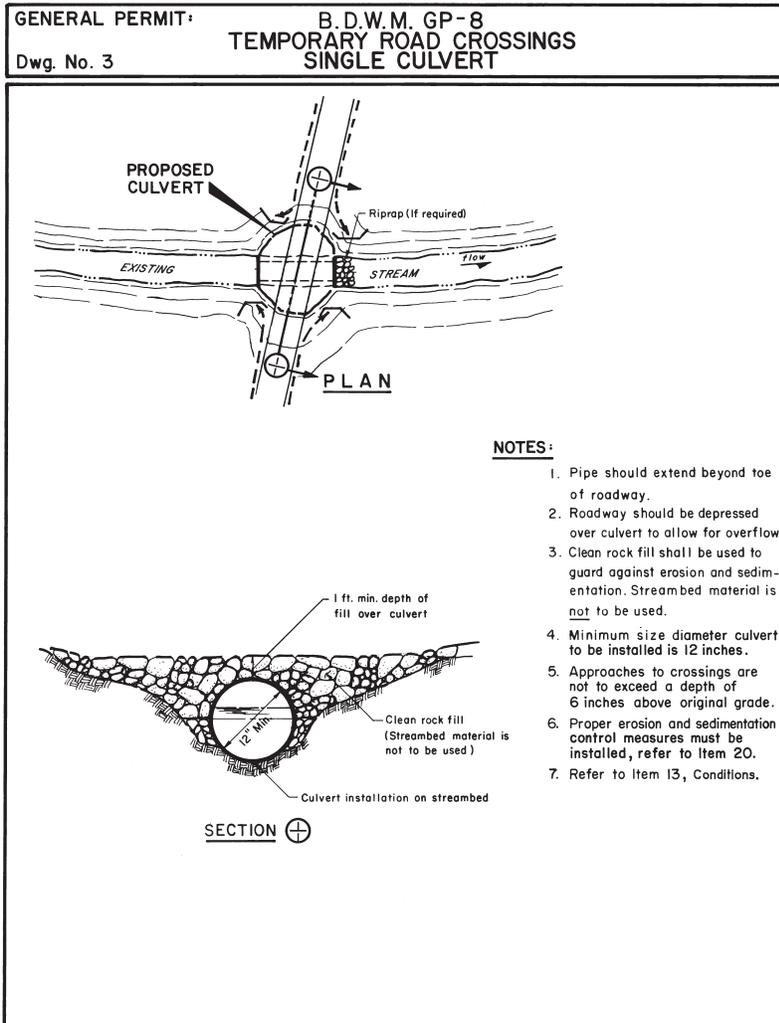
EXHIBIT A

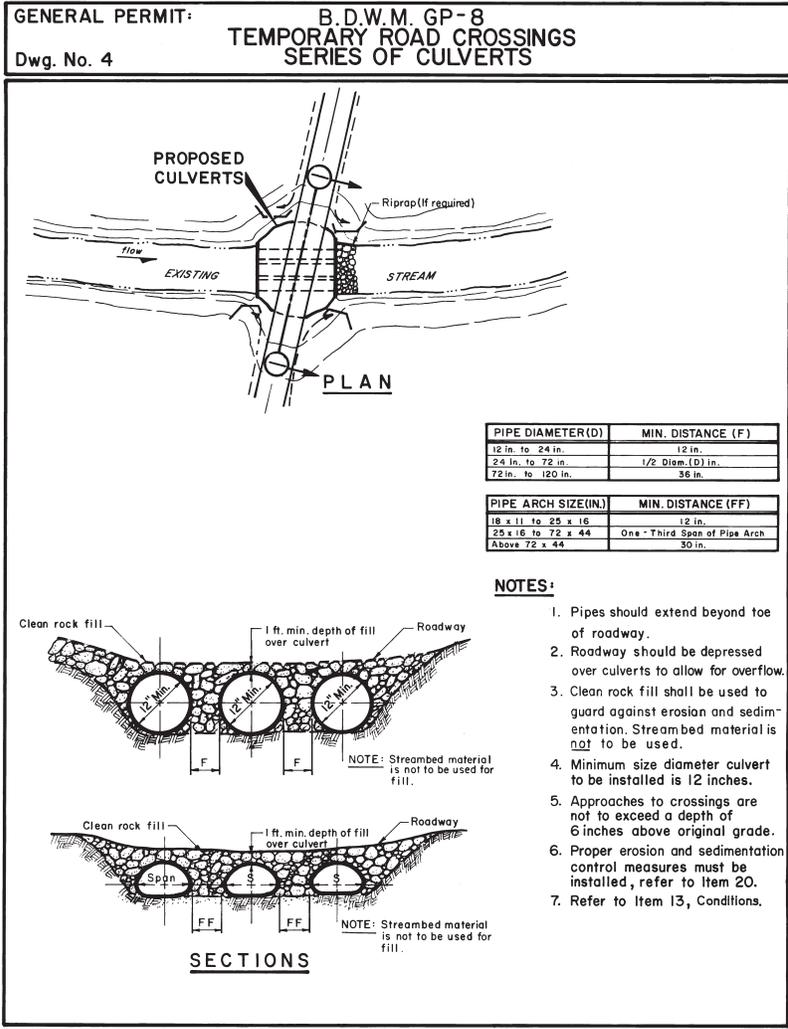




105-237

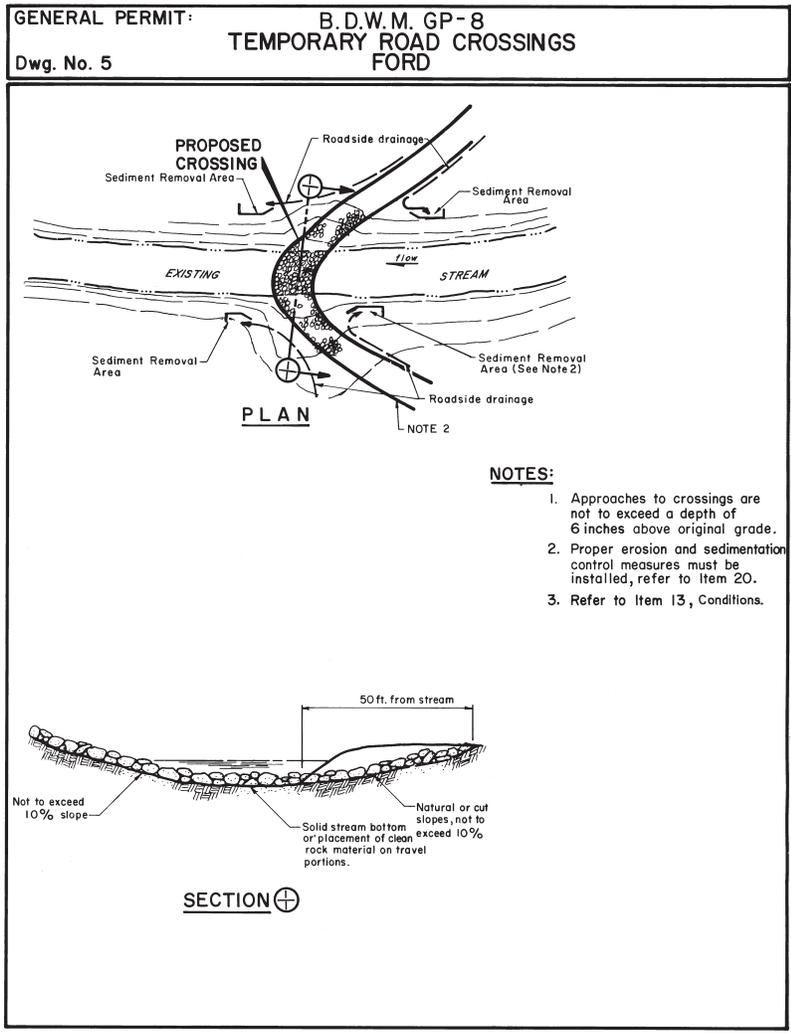
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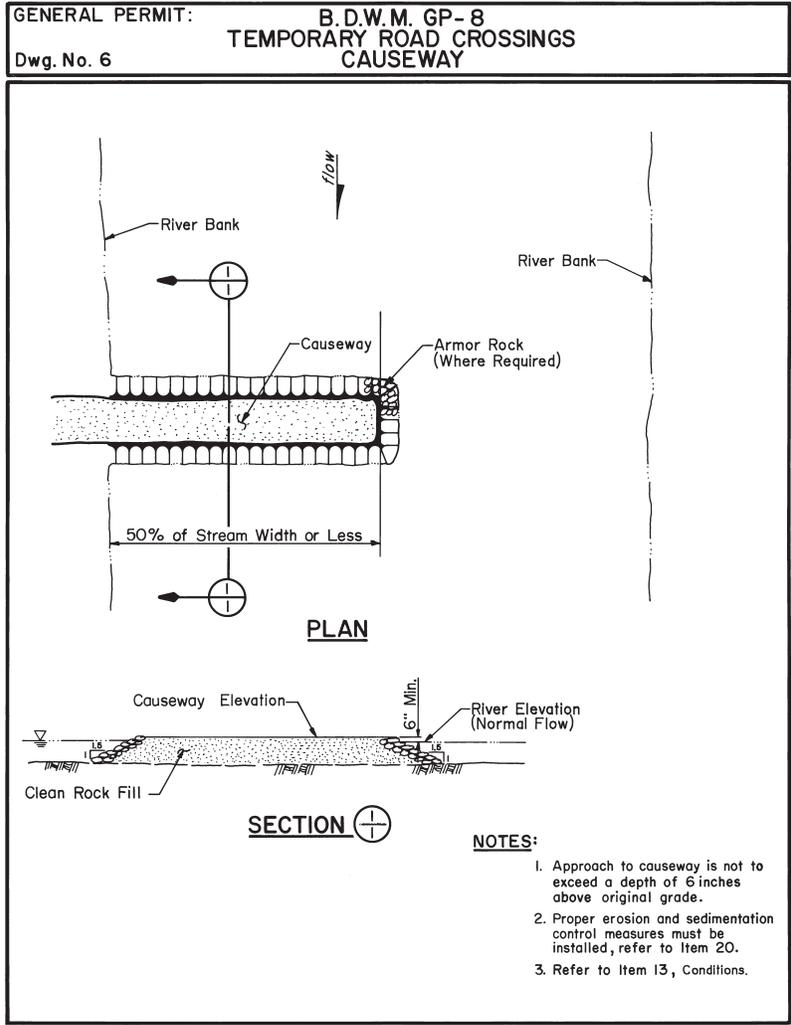




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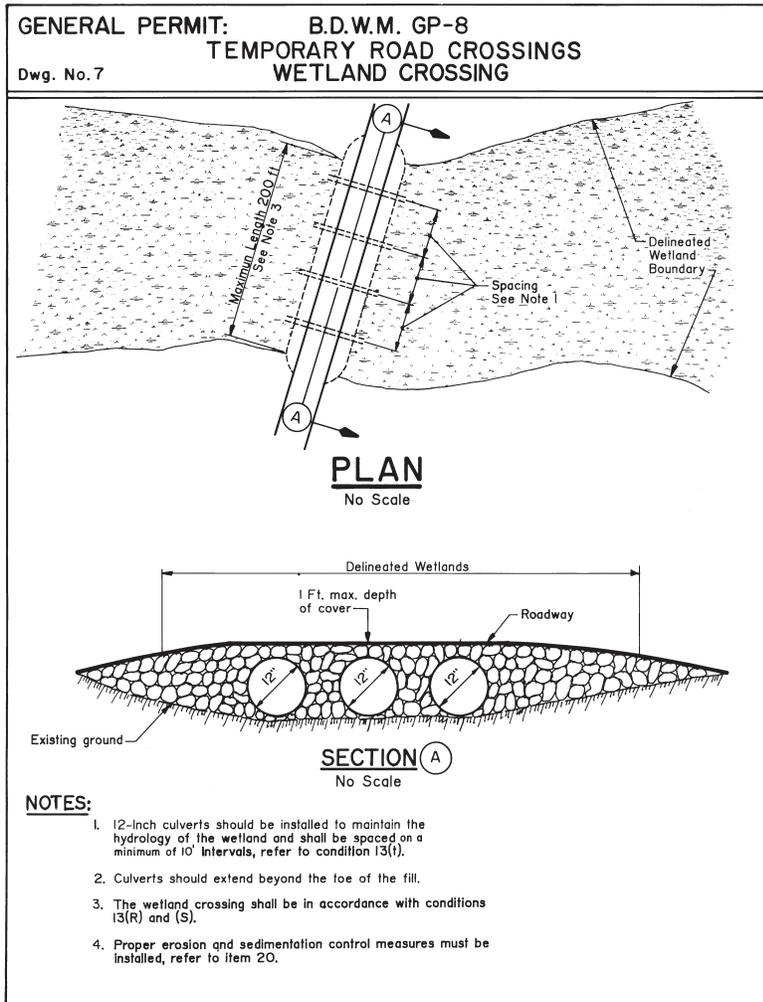
(207895) No. 255 Feb. 96





105-241

(207897) No. 255 Feb. 96



105-242

## FISH AND BOAT COMMISSION'S OFFICES

*Headquarters Address**County Responsibility**NORTHWEST REGION*

Regional Supervisor P. O. Box 349 1281 Otter Street Franklin, Pa. 16323 (814) 437-5774	Butler, Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren
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*SOUTHWEST REGION*

Regional Supervisor R. D. 2, Box 39 Somerset, Pa. 15501-9311 (814) 445-8974	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
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*NORTHCENTRAL REGION*

Regional Supervisor Box 187 (Fishing Creek Road) Lamar, Pa. 16848 (717) 726-6056	Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Northumberland, Potter, Snyder, Tioga and Union
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*SOUTHCENTRAL REGION*

Regional Supervisor 1704 Pine Road Newville, Pa. 17241 (717) 486-7087	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry and York
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*SOUTHEAST REGION*

Regional Supervisor Box 8 Elm, Pa. 17521 (717) 626-0228	Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill
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*NORTHEAST REGION*

Regional Supervisor Box 88 Sweet Valley, Pa. 18656 (717) 477-5717	Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Pike, Sullivan, Susquehanna, Wayne and Wyoming
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105-243

*DIVISION OF ENVIRONMENTAL SERVICES*

450 Robinson Lane  
 Bellefonte, Pa. 16823-9616  
 (814) 359-5145

**EXHIBIT B**

DEPARTMENT OF ENVIRONMENTAL RESOURCES  
 BUREAU OF DAMS AND WATERWAY MANAGEMENT

<i>Area Office</i>	<i>County Responsibility</i>
Southcentral Area Office 49 One Ararat Blvd. P. O. Box 8554 Harrisburg, Pa. 17105-8554 (717) 541-7901	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntington, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Area Office Suite 6010, Lee Park 555 North Lane Conshohocken, Pa. 19428 (215) 832-6340	Berks, Bucks, Carbon, Chester, Delaware, Lehigh, Northampton, Montgomery, Philadelphia and Schuylkill
Southwest Area Office 482 Route 30 R. D. 1 Clinton, Pa. 15026 (412) 899-2377	Allegheny, Armstrong, Beaver, Butler, Cambria, Fayette, Greene, Indiana, Lawrence, Somerset, Washington and Westmoreland
Northwest Area Office 190 Adams Road Jamestown, Pa. 16134 (412) 932-3162	Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Venango and Warren
Northeast Area Office Cross Valley Centre, Suite 203 667 North River Street Plains, Pa. 18705-1099 (717) 826-5485	Bradford, Columbia, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne and Wyoming
Northcentral Area Office 200 Pine Street Williamsport, Pa. 17701 (717) 327-3574	Cameron, Centre, Clinton, Lycoming, Montour, Northumberland, Potter, Snyder, Tioga and Union

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BUREAU OF DAMS AND WATERWAY MANAGEMENT CENTRAL OFFICE  
P. O. Box 8554  
Harrisburg, Pa. 17105-8554  
(717) 541-7900

**EXHIBIT C**  
Notification to Use  
BDWM-GP-8  
Temporary Road Crossings

I/We, \_\_\_\_\_  
(owner name(s))  
hereby notify the Bureau of Dams and Waterway Management of our intent to install  
\_\_\_\_\_  
(description of temporary road crossing)  
in accordance with the drawings and conditions of this General Permit at a point  
\_\_\_\_\_  
(describe location)  
across \_\_\_\_\_  
(name of stream, body of water or wetland)  
in \_\_\_\_\_, \_\_\_\_\_  
(municipality) (county)  
I/We have attached a LOCATION MAP similar to that shown on the Drawing No. 1 indi-  
cating where the temporary road crossing will be installed.  
I/We certify that a copy of this notification was sent this day \_\_\_\_\_  
(date)  
to \_\_\_\_\_ and \_\_\_\_\_ where the work will be  
(municipality) (county)  
performed.

Signed: \_\_\_\_\_  
(owner or authorized representative)  
\_\_\_\_\_  
(typed or printed signature)  
\_\_\_\_\_  
(owner address)  
\_\_\_\_\_  
(owner telephone number)

Send to one of the addresses on Exhibit B.

105-245

**Source**

The provisions of this Appendix H adopted October 5, 1984, effective October 6, 1984, 14 Pa.B. 3658; amended December 1, 1989, effective December 2, 1989, 19 Pa.B. 5165; amended December 27, 1991, effective December 28, 1991, 21 Pa.B. 5992. Immediately preceding text appears at serial pages (162494) to (162509).

**APPENDIX I  
AGRICULTURAL ACTIVITIES; GENERAL PERMIT  
BDWM-GP-9**

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for governing this permit.

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes by General Permit subject to the terms and criteria set forth below the installation, operation, modification and maintenance of certain agricultural activities that encroach into streams and their floodways or bodies of water wholly or partly within or forming part of the boundary of this Commonwealth. These agricultural activities are grassed or lined waterways, terraces, diversions, waste storage facilities, spring development and minor drainage that supports these activities and is necessary for contour strips when engaged in as a part of an existing agricultural operation and shall only be implemented as part of a conservation plan consistent with Chapter 102 (relating to erosion and sediment control) and approved by the County Conservation District. This authorization is under section 7(b) of the Dam Safety and Encroachments Act (32 P. S. § 693.7(b)) and the rules and regulations promulgated thereunder at §§ 105.441—105.449 (relating to general permits). This General Permit is subject to the terms and conditions set forth below.

2. *Denial of Authorization*—The Department has the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this General Permit for any project which the Department determines to present a risk to life, property or the environment or otherwise would not be adequately regulated by the provisions of this General Permit.

3. *Definitions*—The following terms as used in this General Permit shall have the following meanings:

*Agricultural Operations*—Activities, practices and procedures that farmers adopt, use or engage in for the production of crops and livestock. This does not include practices and procedures related to timber harvesting.

*Body of Water*—A natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Conservation Plan*—A plan as required by Chapter 102 that includes a map and narrative that identifies conservation practices including an erosion and sedimentation control plan for the identified parcel of land.

*Contour Strips*—The practice of farming sloped land using alternating crops in such a way that plowing, preparing land, planting and cultivating are done on the contour as part of an agricultural operation. Contour strips without drainage are not regulated.

*Diversions*—A graded channel with a supporting ridge on the lower side which is constructed as part of an agricultural operation across the slope of a field to intercept surface water runoff and carry it slowly to surface or underground outlets.

*Floodway*—The channel of the watercourse and those portions of the adjoining floodplains which are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

*Grassed or Lined Waterway*—A natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation or protection for the stable conveyance of surface water runoff which is part of an agricultural operation.

*Install*—To construct, deposit, place, lay or set in place.

*Minor Drainage*—The installation of a water conveying device as necessary for the installation and operation of contour strips and other conservation practices authorized by this General Permit conducted as part of an agricultural operation.

*Owner*—A person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*Person*—A natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and a department, board, commission or authority of the Commonwealth.

*Regulated Waters of This Commonwealth*—Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Spring Development*—The practice of intercepting and conveying water to a livestock watering facility that will not be used for a public water supply when conducted as part of an agricultural operation.

*Stream*—A watercourse.

*Terrace*—An earthen embankment or a ridge and channel constructed across a slope of a field to intercept surface runoff water and outlet it to a grassed or lined waterway or an underground tile as part of an agricultural operation.

*Waste Storage Facility*—A structure or basin for temporary storage of animal or other organic agricultural wastes constructed as part of an agricultural operation.

*Watercourse*—A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

4. *Specific Areas Where the General Permit Does Not Apply*—This General Permit does not apply in and is not valid in the following situations:

a. Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historic Places or the National Register of Historic Places.

b. Sites identified in the latest published version of the National Registry of Natural Landmarks.

c. Wetlands which serve as habitat for fauna or flora listed as threatened or endangered under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Sites may be checked through the Pennsylvania Natural Diversity Inventory by contacting the Bureau of Forestry, Division of Advisory Services, Post Office Box 8552, Harrisburg, Pennsylvania 17105-8552 or any of the offices listed on Exhibit C.

d. Watercourses having a drainage area greater than 100 acres.

e. Submerged Lands of this Commonwealth.

f. A spring being developed for public drinking water.

5. *Other Permits*—Nothing in this General Permit relieves the owners of the obligation of complying with all Federal, Interstate Compacts and State laws, regulations and standards for the construction, operation or maintenance of the activities covered by this General Permit.

6. *Registration of Proposed Use of General Permit*—Prior to construction, the owners shall submit Exhibit D containing the required certification along with the required location map to the Bureau of Dams and Waterway Management. A copy of Exhibit D shall also be sent to the municipalities and county in which the work will be performed. The owners may not begin work until he has notified the Bureau of Dams and Waterway Management (Exhibit D) and received an acknowledgement of that notification. The Department's acknowledgement letter serves as registration to use this General Permit.

7. *Change of Ownership*—If there is a change in ownership of the agricultural activities installed in accordance with this General Permit, the new owners are required to register the activities with the Department in accordance with Item 6.

8. *Fees*—There is no fee required for a project authorized under this General Permit.

9. *Effective Time Period*—This General Permit will remain in effect indefinitely, unless specifically modified, suspended or revised by the Department.

10. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

11. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed Local, State, Federal or Federally Licensed Project, and permittee may not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States, Commonwealth of Pennsylvania, or its Political Subdivisions in the public interest.

12. *Conditions*.

a. The use of this General Permit is only authorized as part of a conservation plan approved by the County Conservation District (Exhibit B).

b. Grassed waterways, terraces, diversions, waste storage facilities, spring development and minor drainage must be constructed and maintained according to § 101.8 (relating to pollution control and prevention from agricultural operations) and the design standards and specifications found in the technical guide for Pennsylvania available through the United States Department of Agriculture, Soil Conservation or the County Conservation District (Exhibit B).

c. All excess material from any activity must be deposited and stabilized outside the regulated waters of this Commonwealth.

d. Any archaeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Historical and Museum Commission, Post Office Box 1026, Harrisburg, Pennsylvania 17108-1026, telephone (717) 787-2891.

e. Pollution of the waterway with harmful chemicals, fuels, oils, greases, bituminous material, acid, and/or other harmful or polluting materials, is prohibited.

f. Wetlands shall be avoided if an alternate location is possible. Where wetlands cannot be avoided and the activities are necessary to minimize erosion and sedimentation and improve water quality, the impact shall be minimized.

g. Waste storage facilities constructed within 250 feet of a source of water used as a public water supply source as defined under Pennsylvania Safe Drinking Water Act may need to be relocated due to the geology of the site. Contact the Regional Community Environmental Control Office in your area.

13. *Department Inspection*—As a condition of use of this General Permit and of the owner's authority to conduct the activities authorized by this General Permit, the owners hereby authorizes and consents to allow authorized employees or

agents of the Department, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation and to take other action necessary to assure the project is constructed, operated or maintained in accordance with the terms and conditions of this General Permit. This General Permit condition is included under section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16) and in no way limits any other powers granted under the Dam Safety and Encroachments Act or The Clean Streams Law (35 P. S. §§ 691.1—691.1001).

14. *Activities Not in Accordance With the Terms or Conditions*—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or conditions of this General Permit or the rules and regulations published in this chapter, Chapter 102 and § 101.8, the Department may take such actions, legal or administrative, that it may deem to be appropriate, including revocation of the General Permit with regard to the violation.

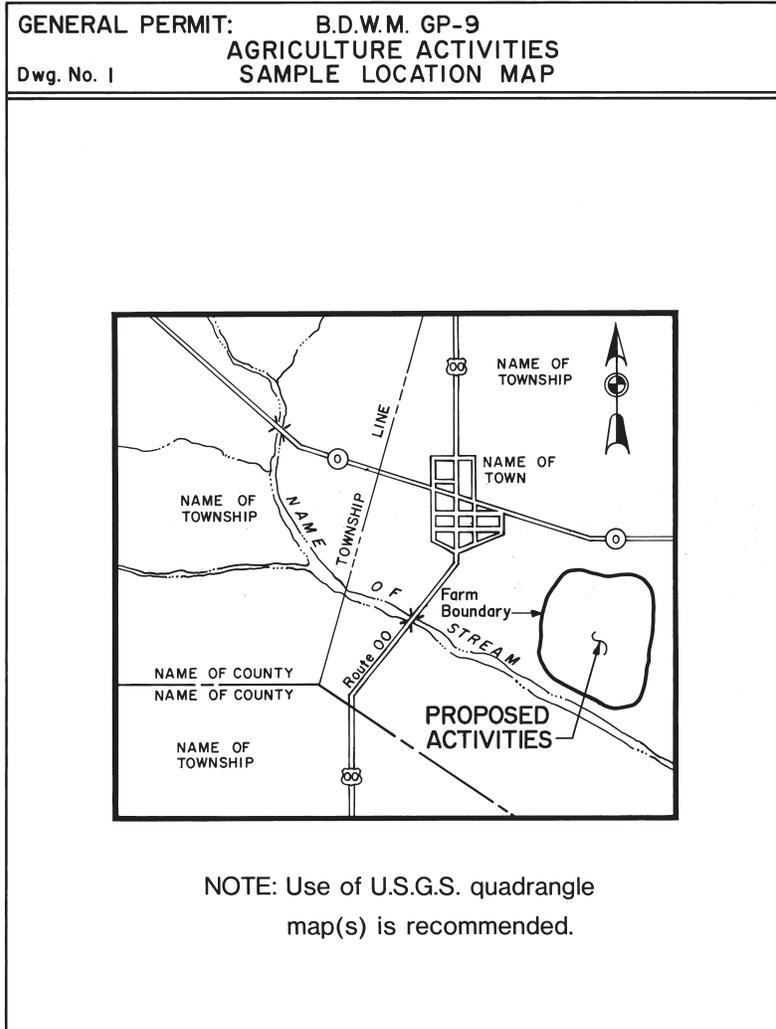
15. *Structural Removal*—The owners shall remove all or any portion of the activities covered by this General Permit upon written notification to the owners by the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the conditions of this General Permit or this chapter.

16. *Property Rights*—This General Permit does not convey any property rights, either in real estate or material, or any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

17. *Other Approvals*—The owners shall secure all other approvals that may be necessary under Federal, State or local laws or regulations.

18. *Fish and Boat Commission Notification*—The owners shall notify the Fish and Boat Commission's Regional Field Office Supervisor (see Exhibit A) responsible for the County where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish Commission.

19. *Erosion and Sedimentation Controls*—Work must be done in compliance with a Conservation Plan which meets the requirements of Chapter 102, including erosion control measures for the construction of best management practices installed under that plan. The project shall at all times be available for inspection by authorized employees of the county conservation district. The Conservation Plan shall be available at the site at all times.



**EXHIBIT A**  
FISH AND BOAT COMMISSION'S OFFICES

*Headquarters Address**County Responsibility**NORTHWEST REGION*

Regional Supervisor P. O. Box 349 1281 Otter Street Franklin, Pa. 16323 (814) 437-5774	Butler, Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren
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*SOUTHWEST REGION*

Regional Supervisor R. D. 2, Box 39 Somerset, Pa. 15501-9311 (814) 455-8974	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
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*NORTHCENTRAL REGION*

Regional Supervisor Box 187 (Fishing Creek Road) Lamar, Pa. 16848 (717) 726-6056	Cameron, Centre, Clearfield, Clinton, Elk, Jefferson, Lycoming, McKean, Northumberland, Potter, Snyder, Tioga and Union
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*SOUTHCENTRAL REGION*

Regional Supervisor 1704 Pine Road Newville, Pa. 17241 (717) 486-7087	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lebanon, Mifflin, Perry and York
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*SOUTHEAST REGION*

Regional Supervisor Box 8 Elm, Pa. 17521 (717) 626-0228	Berks, Bucks, Chester, Delaware, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill
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*NORTHEAST REGION*

Regional Supervisor Box 88 Sweet Valley, Pa. 18656 (717) 477-5717	Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Pike, Sullivan, Susquehanna, Wayne and Wyoming
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105-252

*DIVISION OF ENVIRONMENTAL SERVICES*

450 Robinson Lane  
 Bellefonte, Pa. 16823-9616  
 (814) 359-5145

**EXHIBIT B**  
**COUNTY CONSERVATION DISTRICTS**

<i>Conservation District</i>	<i>Phone Number</i>	<i>Conservation District</i>	<i>Phone Number</i>
Adams County	(717) 334-0636	Juniata County	(717) 436-6919
Allegheny County	(412) 921-1999	Lackawanna County	(717) 587-2607
Armstrong County	(412) 548-3425/3428	Lancaster County	(717) 299-5361
Beaver County	(412) 774-7090	Lawrence County	(412) 652-4512
Bedford County	(814) 623-6706/8099	Lebanon County	(717) 272-3377
Berks County	(215) 372-4655	Lehigh County	(215) 820-3398
Blair County	(814) 696-0877	Luzerne County	(717) 825-1844/5
Bradford County	(717) 265-5539	Lycoming County	(717) 326-5858
Bucks County	(215) 345-7577	McKean County	(814) 368-9960
Butler County	(412) 284-5270/5271	Mercer County	(412) 662-2242
Cambria County	(814) 472-5440 Ext 588	Mifflin County	(717) 248-4695
Cameron County	(814) 486-3350	Monroe County	(717) 629-3060
Carbon County	(215) 377-4894	Montgomery County	(215) 489-4506
Centre County	(814) 355-6817/6818	Montour County	(717) 271-1140
Chester County	(215) 696-5126	Northampton County	(215) 746-1971
Clarion County	(814) 226-4070	Northumberland County	(717) 988-4224
Clearfield County	(814) 765-2629	Perry County	(717) 582-4144
Clinton County	(717) 726-3798	Pike County	(717) 296-3429 Ext 309
Columbia County	(717) 784-1310	Potter County	(814) 274-8411
Crawford County	(814) 724-1793	Schuylkill County	(717) 429-1744
Cumberland County	(717) 249-8632 Ext 379	Snyder County	(717) 837-0085
Dauphin County	(717) 921-8100	Somerset County	(814) 445-4652
Delaware County	(215) 891-5962	Sullivan County	(717) 924-3983
Elk County	(814) 776-5373	Susquehanna County	(717) 278-4600 Ext 280
Erie County	(814) 796-4203	Tioga County	(717) 724-4812
Fayette County	(412) 438-4497	Union County	(717) 523-8782
Forest County	(814) 755-3450	Venango County	(814) 432-7456
Franklin County	(717) 264-8074	Warren County	(814) 723-7700
Fulton County	(717) 485-3547	Washington County	(412) 228-6774
Greene County	(412) 852-1171 Ext 319	Wayne County	(717) 253-1370

Huntingdon County	(814) 643-3536	Westmoreland County	(412) 837-5271
Indiana County	(412) 463-7702	Wyoming County	(717) 836-5111
Jefferson County	(814) 849-7463	York County	(717) 771-9430

**EXHIBIT C**

DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF DAMS AND WATERWAY MANAGEMENT

<i>Area Office</i>	<i>County Responsibility</i>
Southcentral Area Office 149 One Ararat Blvd. P. O. Box 8554 Harrisburg, Pa. 17105-8554 (717) 541-7901	Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Area Office Suite 6010, Lee Park 555 North Lane Conshohocken, Pa. 19428 (215) 832-6340	Berks, Bucks, Carbon, Chester, Delaware, Lehigh, Northampton, Montgomery, Philadelphia and Schuylkill
Southwest Area Office 482 Route 30 R. D. 1 Clinton, Pa. 15026 (412) 899-2377	Allegheny, Armstrong, Beaver, Butler, Cambria, Fayette, Greene, Indiana, Lawrence, Somerset, Washington and Westmoreland
Northwest Area Office 190 Adams Road Jamestown, Pa. 16134 (412) 932-3162	Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Venango and Warren
Northeast Area Office Suite 203, Cross Valley Centre 667 North River Street Wilkes-Barre, Pa. 18705 (717) 826-5485	Bradford, Columbia, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne and Wyoming
Northcentral Area Office 200 Pine Street Williamsport, Pa. 17701 (717) 327-3574	Cameron, Centre, Clinton, Lycoming, Montour, Northumberland, Potter, Snyder, Tioga and Union

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*BUREAU OF DAMS AND WATERWAY MANAGEMENT  
 CENTRAL OFFICE  
 P. O. Box 8554  
 Harrisburg, Pa. 17105-8554  
 (717) 541-7900*

**EXHIBIT D**  
 Notification to Use  
 BDWM-GP-9  
 Agricultural Activities

I/We \_\_\_\_\_  
 (owner name(s))

hereby notify the Bureau of Dams and Waterway Management of our intent to install agricultural activities essential for the maintenance of existing agricultural operations in accordance with an approved conservation plan on property in

\_\_\_\_\_, \_\_\_\_\_  
 (Municipality) (County)

I/We have attached a LOCATION MAP similar to that shown on the Drawing No. 1 indicating where the activities will be installed.

I/We certify that a copy of this notification was sent this day \_\_\_\_\_  
 (date)

to \_\_\_\_\_ and \_\_\_\_\_ where the work will be performed.  
 (municipality) (county)

Signed: \_\_\_\_\_  
 (owner or authorized representative)

\_\_\_\_\_  
 (type or printed signature)

\_\_\_\_\_  
 (owner address)

\_\_\_\_\_  
 (owner telephone number)

I/We certify that the activities indicated above are an essential component of a conservation plan for this ongoing agricultural operation.

Signature:

\_\_\_\_\_ date

County Conservation District  
 Send to appropriate addresses on Exhibit C.

**Source**

The provisions of this Appendix I adopted January 24, 1992, effective January 25, 1992, 22 Pa.B. 392.

**APPENDIX J**  
**ABANDONED MINE RECLAMATION; GENERAL**  
**PERMIT BDWW-GP-10**

1. *General Description and Authority*—The Department of Environmental Resources hereby authorizes, by general permit, subject to the terms and criteria set forth below, the construction, operation or maintenance of an encroachment or water obstruction for reclamation of an abandoned mining site, where the Department has issued a notice of intent to forfeit the bond for a mining activity permitted after August 1977, and before July 1982. This authorization is under section 7 of the Dam Safety and Encroachments Act (32 P. S. § 693.7) and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits).

2. *Denial of Authorization*—The Department shall have the discretion, on a case-by-case basis, to deny, revoke or suspend the authorization to use this general permit for any project which the Department determines to have a substantial risk to life, property or the environment or otherwise could not be adequately regulated by the provisions of this general permit.

3. *Sites and Conditions Where This General Permit Does Not Apply*—This General Permit does not apply and is not valid in the following situations:

a. Projects located where there would be an impact on species of special concern listed under the Endangered Species Act of 1973, the Wild Resources Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Records regarding species of special concern are maintained in a computer database called the “Pennsylvania Natural Diversity Inventory” (PNDI). To verify that there will be no such impacts for a specific project, the Department requires submission of the attached Supplement No. 1 prior to registration for use of the General Permit. The processed Supplement No. 1 is returned to the owner and must be attached to the General Permit notification as verification that the General Permit is applicable.

b. Construction activities in stocked trout streams from March 1 through June 15, wild trout streams from October 1 through December 31 and Lake Erie tributaries from September 1 through December 1, unless approval is obtained from the Fish and Boat Commission’s Division of Environmental Services. Stocked and wild trout stream locations are compiled by the Commission’s Division of Fisheries Management.

4. *Definitions*—The terms as used in this General Permit shall have the following meanings:

*Body of Water*—A natural or artificial lake, pond, reservoir, swamp, marsh or wetland.

*Owner*—Any person who owns, controls, operates, maintains or manages a dam or reservoir, water obstruction or encroachment.

*Person*—Any natural person, partnership, association, corporation, public utility, municipality, municipal authority, political subdivision of the Commonwealth, receiver or trustee and any department, board, commission or authority of the Commonwealth.

*Reclamation*—Those actions set forth in the forfeiting operators permit taken to restore the area affected by surface and underground mining activities as required by 25 Pa. Code Chapters 86—89 and for which State and/or Federal reclamation funding is used to perform the reclamation.

*Regulated Waters of the Commonwealth*—All watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth.

*Reservoir*—Any basin, either natural or artificial, which contains or will contain the water or other fluid or semifluid impounded by a dam.

*Stocked Trout Stream*—A stream classified as approved trout waters by the Fish and Boat Commission. For current designations of stocked trout streams contact the Division of Fisheries Management.

*Watercourse*—Any channel of conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

*Wetlands*—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adopted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Wild Trout Streams*—A stream classified as supporting reproducing trout populations by the Fish and Boat Commission. For current designations of wild trout streams, contact the Division of Fisheries Management.

5. *Other Permits*—Nothing in this General Permit relieves the owners of the obligation of complying with all Federal, Interstate Compact and State laws, regulations and standards for the construction, operation or maintenance of the activities covered by this General Permit.

6. *Registration for Use*—Prior to construction, the owners shall submit two copies of the completed Notification to Use (Exhibit D) along with two copies of the location map and processed Supplement No. 1 to the Soils and Waterways Section or the County Conservation District (Exhibits B and C). The notification must be sent to the County Conservation District only if there is a delegation agreement between the Department and the District. A copy of Exhibit D shall also be sent to the municipality and county in which the work will be performed. The owners may not begin work until they have received an acknowledgement from the Soils and Waterways Section of County Conservation District that the Exhibit D notification has been received and registered.

7. *Fees*—There is no fee required for a project authorized under this General Permit.

8. *Effective Time Period*—This General Permit will remain in effect indefinitely unless specifically modified, suspended or revised by the Department.

9. *Suspension, Modification or Revocation*—The Department may suspend, modify or revoke this General Permit at any time upon notice in the *Pennsylvania Bulletin*.

10. *Project Interference*—This General Permit does not authorize any interference with any existing or proposed local, State, Federal or Federally licensed project, and permittee shall not be entitled to compensation for damage or injury to the work authorized herein which may be caused by or a result of existing or future operations undertaken by the United States or the Commonwealth of Pennsylvania or its Political Subdivisions in the public interest.

11. *Conditions.*

a. Any archeological artifacts discovered during the performance of work authorized under this General Permit must be adequately protected and their discovery promptly reported to the Director, Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission, P. O. Box 1026, Harrisburg, PA 17101-1026, telephone (717) 787-2891.

b. All excess fill or excavated and dredged material shall be deposited and immediately stabilized outside floodways, floodplains, wetlands and other regulated waters of this Commonwealth. Waste materials, scrap or excess construction materials shall be collected, stored and disposed of in accordance with the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003) and the regulations promulgated thereunder.

c. Owners shall investigate for drinking water intakes or reservoirs to public and private water supplies within 5 miles downstream of the reclamation site and written notice shall be given at least 10 days prior to construction to operators of such intakes or reservoirs. Owners shall notify public and private water supply operators and the Department immediately and no longer than 1 hour after an occurrence at the reclamation site which results in the release of suspended solids and turbidity to the drinking water supply, including both surface and groundwater sources, that maintain the quality or quantity of the drinking water supply.

d. Reclamation projects shall not extend beyond the reclamation site.

e. During construction activities, all public and private property including existing vegetation, landscape features and monuments within, along and adjacent to the work area, shall be protected and preserved to the maximum degree possible. This shall include, but not be limited to, precautions taken to minimize damage, erosion, injury or destruction, prevent pollution, provide protection of all trees and other woody plants, special care being taken to protect the natural vegetation and surroundings to include all natural drainageways, ponds, lakes, swamps, woods and fields and storage of materials in such manner to

prevent leaching which would be injurious to soils and to plants. Precautions should be taken to prevent damage to pipes, conduits and other underground structures.

f. The owners shall notify the Fish and Boat Commission's Regional Field Office Supervisor responsible for the County where the activities are proposed 10 days prior to start of construction. Written notification is suggested. The project site shall at all times be available for inspection by authorized officers and employees of the Fish and Boat Commission.

g. Prior to the use of explosives in a watercourse or body of water, the permittee shall secure a written permit from the Fish and Boat Commission, under the Fish and Boat Code, Act 1980-175, 30 Pa.C.S. § 2906 (relating to permits for use of explosives). Requests should be directed to the Fish and Boat Commission, Division of Environmental Services.

h. Prior to construction, approval must be obtained from the Fish and Boat Commission's Division of Environmental Services for use of this project on reclamation sites bordering (1) stocked trout streams from March 1 through June 15 and (2) wild trout streams from October 1 through December 31.

i. All temporary road crossings of the regulated waters of the Commonwealth in areas unaffected by mining activities shall be constructed in accordance with the design standards and conditions of General Permit BDWW-8.

j. Prior to construction, the property owner of the abandoned mine site shall be sent, by certified mail, a questionnaire inquiring whether there are existing facilities on site such as ponds, wetlands or diversion ditches which the property owner wants left in place in their present condition. Construction may not be commenced until receipt of the complete questionnaire.

12. *Department Inspection*—As a condition of use of this General Permit, and of the owner's authority to conduct the activities authorized by this General Permit, the owner hereby authorizes and consents to allow authorized employees or agents of the Department or County Conservation District, without advance notice or a search warrant, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated or maintained. The authorization and consent shall include consent to conduct tests or sampling, to take photographs, to perform measurements, surveys and other tests, to inspect the methods of construction, operation or maintenance, to examine and copy books, papers and records pertinent to any matter under investigation, and to take any other action necessary to assure that the project is constructed, operated or maintained in accordance with the terms and criteria of the General Permit. This General Permit condition is referenced in accordance with section 16 of the Dam Safety and Encroachments Act (32 P. S. § 693.16) and in no way limits any other powers granted under the Dam Safety and Encroachments Act.

13. *Activities Not in Accordance With the Terms or Conditions*—If the Department or County Conservation District determines, upon inspection, that the

construction, operation or maintenance of a project has violated the terms or criteria of this General Permit, the Chapter 105 and 102 Rules and Regulations or the appropriate NPDES permit for discharge of stormwater from construction activities, the Department may take such actions, legal or administrative, that it may deem to be appropriate.

14. *Property Rights*—This General Permit does not convey any property rights, either in real estate or material or in any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations.

15. *Other Approvals*—The owners shall secure all other approvals that may be necessary under other Federal, State or local laws or regulations.

16. *Erosion and Sediment Pollution Controls*—Work must be done in compliance with Chapter 102 (relating to erosion and sediment control) and/or under the appropriate NPDES permit for discharge of stormwater from construction activities. Prior to construction, an Erosion and Sediment Pollution Control Plan must be reviewed and determined adequate by the County Conservation District in which the activities are proposed and implemented prior to, during and after construction. The County Conservation District shall be notified 10 days prior to the start of construction. The project site shall at all times be available for inspection by authorized employees of the County Conservation District. The Erosion and Sediment Pollution Control Plan shall be available at the site.

#### Source

The provisions of this Appendix J adopted July 8, 1994, effective August 8, 1994, 24 Pa.B. 3404.

## APPENDIX O GENERAL PERMIT BWQP-GP-15 PRIVATE RESIDENTIAL CONSTRUCTION IN WETLANDS

**Editor's Note:** The following permit was published in the *Pennsylvania Bulletin* as a Notice and is codified under 1 Pa. Code § 3.1(a)(9) (relating to contents of *Code*) as a document which the Legislative Reference Bureau finds to be general and permanent in nature. See §§ 105.441—105.449 (relating to general permits) for regulations governing this permit.

**A. General Description.** The Department of Environmental Protection hereby authorizes, by general permit, the placement and maintenance of fill in, or the excavation of, non-tidal wetlands for the construction or expansion of a single family home for the personal residence of the permittee, including reasonable and necessary features such as a driveway, storage shed and utilities on a residential lot purchased by the permittee prior to November 22, 1991, within established subdivisions approved by the local governing authority where such activities do not impact greater than .50 acre of nontidal wetlands. The issuance of this General Permit also constitutes approval of a Water Quality Certification under section 401 of the Federal Clean Water Act (33 U.S.C.A. § 1341). The monetary

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contribution associated with this General Permit is for participation in the Pennsylvania Wetland Replacement Project.

Neither the Department of Environmental Protection nor any County Conservation District which is delegated Chapter 105 permitting authority shall be liable for incidents resulting from subsidence, structure failure, water damage, vector problems or any other hardships that may occur as a result of building in wetlands.

**B. Registration Procedure:**

1. Complete the registration Form (Exhibit A).

The information requested in Item 2 on the registration form will be used to determine potential impacts to threatened and endangered species. If a potential impact is indicated, the Department will provide assistance to you to address threatened and endangered species concerns. The use of this general permit is not authorized until the potential impact is resolved.

If you desire, to avoid possible project delays, a search for potential impacts can be conducted prior to registration by completing the attached Supplement No. 1, Pennsylvania Natural Diversity Inventory Form (PNDI) and submitting it to the appropriate DEP Regional Office or delegated County Conservation District. The completed search information should be submitted when you register the permit.

2. Prepare a project location map utilizing a photocopy of a 7-1/2 minute U.S.G.S. Quadrangle Map showing the project site.

3. Delineate the wetlands in accordance with established Department procedures. Delineation services for the purpose of registering this general permit will be provided by the U. S. Army Corps of Engineers or the Department of Environmental Protection or its designee, upon request. If you choose to have delineation services provided by the Army Corps of Engineers or the Department, please request this service in writing early in the project planning stage to allow sufficient response and scheduling time to avoid project delays.

4. Prepare an Erosion and Sedimentation control plan. Permit users are encouraged to contact County Conservation Districts for erosion and sedimentation control planning assistance.

5. Prepare a sketch plan (Exhibit B) or attach a copy of a plot plan of the project showing the:

- a. dimension of the entire property,
- b. location of wetland,
- c. location of erosion and sedimentation control measures,
- d. dimension of the proposed wetland impact area,
- e. location of house/driveways, and the like,
- f. location of waterways, drainage ditches, and the like,
- g. existing utilities,
- h. proposed utilities, water, sewer, telephone, and the like.
- i. building setbacks,

- j. previously filled wetlands,
  - k. floodplains,
  - l. location of replacement wetlands.
6. To register use of the general permit send one copy of the:
- a. Location Map,
  - b. Registration Form (Exhibit A),
  - c. Sketch Plan (Exhibit B),
  - d. Wetland delineation,
  - e. Erosion and Sedimentation Control Plan approval letter, for lots greater than 0.5 acre (see D.8. below),
  - f. A Wetland Replacement Plan or, a contribution to the Pennsylvania Wetland Replacement Project, as described in Part D.9 of this general permit;
  - g. Supplement Number 1, PNDI (see B.1); and
  - h. Corps authorization if the wetland impact is greater than .10 acre;
- to the DEP Regional Soils and Waterways Section or the delegated County Conservation District.
7. You may not begin construction until you receive confirmation of registration and Federal authorization from the U. S. Army Corps of Engineers under Section 404 of The Clean Water Act. Please contact the appropriate Corps District for permit information.

<i>Delaware River Basin</i>	<i>Susquehanna River Basin</i>	<i>Ohio River Basin</i>
Philadelphia District Corps of Engineers Wanamaker Bldg. 100 Penn Square East Philadelphia, PA 19107 Phone: 215-656-6728	Baltimore District Corps of Engineers P. O. Box 1715 Baltimore, MD 21203-1715 Phone: 410-962-1846	Pittsburgh District Corps of Engineers Room 1834, Federal Bldg. 1000 Liberty Avenue Pittsburgh, PA 15222 Phone: 412-644-6872

**C. Definitions Applicable to this General Permit:**

*Central Sewage*—A sewerage system consisting of pipes, lateral lines, trunk lines or mains, which convey waste to a facility that provides treatment for final disposal. The term Central Sewage does not include onlot disposal, community onlot disposal, or any other system that requires a land surface or subsurface absorption area for treatment and disposal purposes.

*FEMA*—The Federal Emergency Management Agency

*Floodplain*—The lands adjoining a river or stream that have been or may be expected to be inundated by flood waters in a 100-year frequency flood. Unless otherwise specified, the boundary of the 100-year floodplain is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodplain it is assumed, absent evidence to the contrary, that the floodplain extends from the stream to 50 feet from the top of the bank of the stream. Other evidence of the

extent of the floodplain may include local stormwater management plans, local zoning ordinances, subdivision plans and similar land use mapping.

*Impact*—The loss of nontidal wetlands of the Commonwealth including any filled area previously permitted, the proposed filled area and any other nontidal wetlands of the Commonwealth that are adversely affected by flooding, excavation or drainage as a result of the project.

*Individual*—A natural person and/or couple but does not include a corporation, partnership or similar entity.

*Parcel of Land*—The entire contiguous quantity of land in possession of, recorded as property of, or owned (in any form of ownership, including land owned as a partner, corporation, joint tenant, and the like) by the same individual as of November 22, 1991 (and/or his or her spouse), and comprises not only the area of wetlands sought to be filled, but also all land contiguous to those wetlands, owned by the individual and/or his or her spouse in any form of ownership.

*Pennsylvania Wetland Replacement Project*—A fund managed by the National Fish and Wildlife Foundation from which money is dispersed at the direction of the Department of Environmental Protection, to which Chapter 105 permit applicants can make a monetary contribution, in lieu of creating wetlands.

*Subdivision*—The division or redivision of a lot, tract or parcel of land into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines.

*Wetlands*—Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

*Emergent Wetland*—Wetland areas dominated by nonwoody vegetation.

*Forested Wetland*—Wetland areas dominated by woody vegetation 20 feet or more in height.

*Scrub/Shrub Wetland*—Wetland areas dominated by woody vegetation less than 20 feet in height.

#### **D. Conditions:**

1. Impacts to wetlands must be avoided and minimized. Nonwetland areas onsite must be utilized whenever practical.

2. Fills or excavations in wetlands, including previously filled areas may not exceed more than 40% of the total lot area, except where lots are less than .25 acre in size where a maximum of .10 acre of fill in wetlands is authorized. In no circumstances may the total impact associated with the fill or excavation exceed 0.50 acre of wetlands.

The following conversion table provides an example of the amount of wetland fill authorized in accordance with the 40% maximum fill condition.

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<i>Lot Area in Acres</i>	<i>x</i>	<i>40% of Lot Area</i>	<i>=</i>	<i>Maximum Area of Wetland Fill</i>
0.25	x	0.40	=	0.10 acre
0.33	x	0.40	=	0.13 acre
0.50	x	0.40	=	0.20 acre
0.75	x	0.40	=	0.30 acre
1.00	x	0.40	=	0.40 acre
1.25	x	0.40	=	0.50 acre

3. Fills, and/or excavations, in wetlands located on floodplains are not authorized by this General Permit. Information on floodplains may be available through local municipalities, home owner associations, county planning offices, FEMA and similar agencies.

4. This permit may only be used once by an individual.

5. This permit may only be used for a single-family home for a personal residence by an individual who purchased the lot prior to November 22, 1991.

6. This permit may only be used on residential lots with access to a central sewage system which is in place and operational at the time of registration, except in instances where the fill is for the expansion of an existing residence. Under no circumstances may fill be used to construct or expand an onlot sewage disposal system.

7. Fill material cannot contain wastes as defined in the Solid Waste Management Act.

8. Appropriate erosion control measures and facilities must be incorporated into all earthmoving activities associated with construction. Upon completion of construction the site shall be stabilized.

a. For lots greater than .50 acre an Erosion and Sedimentation Control Plan must be reviewed and approved by the County Conservation District in the county where your project is located prior to registration.

b. For all other lots equal to or less than .50 acre, an Erosion and Sedimentation Control Plan meeting the requirements of Chapter 102 (relating to erosion and sediment control) must be implemented and must be available at the site for review by the Department and/or the County Conservation District (see Exhibit B, Erosion and Sedimentation Control Notes). Permit users are encouraged to contact County Conservation Districts for erosion and sedimentation control planning assistance.

9. Individuals who wish to use this General Permit for impacts of up to .50 acre of wetlands must provide for the replacement of functions, values and areal extent of the wetlands impacted by:

a. creating a wetland in accordance with the Department's Design Criteria for Wetland Replacement on a 1:1 area ratio, replacement wetlands to filled wetlands. (Copies of the criteria are available at DEP Regional Offices.)

b. participating in the Pennsylvania Wetland Replacement Project by contributing to the National Fish and Wildlife Foundation Fund Project 95-096. The contribution rate is as follows:

Deminimus impact less than or equal to .05 acre	— \$ 0.00
Greater than .05 acre to .10 acre	— \$ 500.00
Greater than .10 acre to .20 acre	— \$ 1,000.00
Greater than .20 acre to .30 acre	— \$ 2,500.00
Greater than .30 acre to .40 acre	— \$ 5,000.00
Greater than .40 acre to .50 acre	— \$ 7,500.00

10. Fills and/or excavations should not increase flood levels or permanently restrict, impede, accelerate, increase or obstruct the passage of normal or expected stormwater flows in such a manner that adversely impacts the property or riparian rights of owners above, below, or adjacent to the project.

11. This permit is not valid for use within the corridor of a watercourse or body of water that has been designated as a National Wild or Scenic River in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§ 1271—1287) or designated as wild or scenic under the Pennsylvania Scenic Rivers Act (32 P. S. §§ 820.21—820.29). Information may be obtained by contacting the Department of Conservation and Natural Resources (DCNR), Bureau of Recreation and Conservation, Scenic Rivers Program, P. O., Box 8475, Harrisburg, PA 17105 or calling (717) 787-2316.

**E. Activities Not in Accordance with Terms or Conditions**—If the Department determines, upon inspection, that the construction, operation or maintenance of a project has violated the terms or criteria of this General Permit or of the Chapter 105 Rules and Regulations, the Department may take such actions, legal or administrative, that it may deem to be appropriate.

**F. Denial of Authorization**—The Department shall have the discretion to deny, revoke or suspend the use of the General Permit for any project which the Department determines to have a substantial risk to life, health, property or the environment.

**G. Authority**—Authorization of this General Permit is under section 7 of the Dam Safety and Encroachment Act 32 P. S. § 693.7 et seq., and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441—105.449 (relating to general permits). This General Permit becomes effective April 7, 1997, and will remain in effect indefinitely unless specifically modified, suspended or revoked by the Department.

EXHIBIT A  
REGISTRATION FORM

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
GENERAL PERMIT BWQP-GP-15  
PRIVATE RESIDENTIAL CONSTRUCTION  
IN WETLANDS

DEP BWQP-GP-15 Acknowledged  
on \_\_\_\_\_ (date).  
GP Number(s): \_\_\_\_\_

Please check appropriate boxes

1. I/We \_\_\_\_\_  
(owners name(s))  
hereby notify the Department of Environmental Protection of the intent to fill or excavate a non-tidal wetland for the purpose of  constructing or  expanding a single-family home for a personal residence in accordance with the terms of and conditions of this General Permit.  
Impact is to \_\_\_\_\_ of -  (1) Forested  (2) Scrub/Shrub  (3) Emergent  
(Actual Acreage)  
wetland at a point \_\_\_\_\_  
(describe location, subdivision name, street, lot no., etc.)  
purchased on \_\_\_\_\_ in \_\_\_\_\_  
(date of purchase) (municipality)  
\_\_\_\_\_  
(county)

2. I/We have enclosed the following: (check applicable items)
- a LOCATION MAP with the project site marked. This project is located on the \_\_\_\_\_ U.S.G.S. Quadrangle Map as follows:  
North (up) \_\_\_\_\_ inches West (to the left) \_\_\_\_\_ inches
  - a completed copy of SUPPLEMENT NO. 1 PNDI Search Form (only if this form was submitted prior to this registration process.)
  - a SKETCH PLAN (Exhibit B) or plot plan.
  - a formal wetland delineation conducted in accordance with established procedures.
  - Corps authorization for wetland impacts greater than .10 acre.

If the lot is over .50 acre also submit

- an Erosion and Sedimentation Control Plan approval letter from the County Conservation District.

3. Choose A or B -

- A. I/We have enclosed a wetland replacement plan in accordance with the Department's replacement criteria which provides \_\_\_\_\_ acre of wetlands.
- B. I/We have enclosed a check, number \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ payable to the National Fish and Wildlife Foundation, Project 95-096 as compensatory mitigation for \_\_\_\_\_ acre of impact in wetlands.

4. Owners signature -

\_\_\_\_\_  
(Signature) (Address)  
\_\_\_\_\_  
(Telephone number) (City/state/zip code)

**SAMPLE EXHIBIT B**

Lot Size = Width 120 ft. x Length 180 ft = 21,600 square feet		<b>Conversion Chart</b>	
Wetland Impacts = Width 80 ft x Length 50 ft = 4,000 square feet		square feet = acreage	
<b>EROSION AND SEDIMENTATION CONTROL NOTES</b>		0 - 2,178 = 0 - .05	
1. Install rock construction entrance.		✓ 2,179 - 4,356 = .05 - .10	
2. Install perimeter control measures, such as silt fence.		4,357 - 8,712 = .10 - .20	
3. Maintain control measures at all times.		8,713 - 13,068 = .20 - .30	
4. Inspect measures after each rain event & repair or replace as needed.		13,069 - 17,424 = .30 - .40	
5. Stabilize disturbed areas promptly upon completion of construction or when earthmoving temporarily ceases for more than 20 days.		17,425 - 21,780 = .40 - .50	
		↑ Check the box which includes your calculated wetland impact area	
		To ensure your sketch plan is complete check the following. (Y = Yes, N/S = None on Site) <b>Mandatory Information</b>	
		1. Wetland delineation <input checked="" type="checkbox"/> Y 2. E/S control measures <input checked="" type="checkbox"/> Y 3. Area of fill/excavation <input checked="" type="checkbox"/> Y 4. Location of house/driveway <input checked="" type="checkbox"/> Y 5. Proposed utilities <input checked="" type="checkbox"/> Y	
		<b>Other Information if applicable</b>	
		6. Previously filled areas <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S 7. Waterways, drainage ditches etc. <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S 8. Floodplains <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S 9. Existing utilities <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S 10. Building setbacks <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S 11. Location of replacement wetlands <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/S	
Property Owner Name(s): James & Janet Jones		Shady Lane T.R. 589	
Municipality: Fayette Township		County: Juniata	

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(227159) No. 270 May 97

EXHIBIT B

Lot Size = Width ___ ft. x Length ___ ft = _____ square feet	<b>Conversion Chart</b> square feet = acreage 0 - 2,178 = 0 - .05 2,179 - 4,356 = .05 - .10 4,357 - 8,712 = .10 - .20 8,713 - 13,068 = .20 - .30 13,069 - 17,424 = .30 - .40 17,425 - 21,780 = .40 - .50
Wetland Impacts = Width ___ ft x Length ___ ft = _____ square ft.	
<b>EROSION AND SEDIMENTATION CONTROL NOTES</b>	
1. Install rock construction entrance.	
2. Install perimeter control measures, such as silt fence.	
3. Maintain control measures at all times.	
4. Inspect measures after each rain event & repair or replace as needed.	
5. Stabilize disturbed areas promptly upon completion of construction or when earthmoving temporarily ceases for more than 20 days.	
	↑ Check the box which includes your calculated wetland impact area  To ensure your sketch plan is complete check the following: (Y = Yes, NS = None on Site) <b>Mandatory Information</b> 1. Wetland delineation <input type="checkbox"/> Y 2. E/S control measures <input type="checkbox"/> 3. Area of fill/excavation <input type="checkbox"/> 4. Location of house/ driveway <input type="checkbox"/> 5. Proposed utilities <input type="checkbox"/>  <b>Other Information if applicable</b> 6. Previously filled areas <input type="checkbox"/> Y NS 7. Waterways, drainage ditches etc. <input type="checkbox"/> 8. Floodplains <input type="checkbox"/> 9. Existing utilities <input type="checkbox"/> 10. Building setbacks <input type="checkbox"/> 11. Location of replacement wetlands <input type="checkbox"/>
Property Owner Name(s): _____	
Municipality: _____	County: _____

Source

The provisions of this Appendix O adopted February 2, 1996, effective March 4, 1996, and will remain in effect indefinitely unless specifically modified, suspended or revoked by the Department, 26 Pa.B. 526; amended March 7, 1997, effective April 7, 1997, 27 Pa.B. 1195. Immediately preceding text appears at serial pages (210128) to (210134) and (217395) to (217396).

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