



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

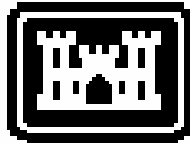
JOINT PERMIT APPLICATION INSTRUCTIONS

FOR A

**PENNSYLVANIA WATER OBSTRUCTION AND
ENCROACHMENT PERMIT APPLICATION**

AND A

**U.S. ARMY CORPS OF ENGINEERS
SECTION 404 PERMIT APPLICATION**



**US Army Corps
of Engineers**

**For more information,
visit DEP's Web site at www.depweb.state.pa.us,
keyword: Water Management.**

JOINT PERMIT APPLICATION INSTUCTIONS

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INTRODUCTION

This booklet is intended to assist the applicant in properly completing a **Joint Permit Application** for a state (Department of Environmental Protection (DEP)) **Water Obstruction and Encroachment permit** and a federal (U.S. Army Corps of Engineers (the Corps)) **Section 9, Section 10 or Section 404** permit. DEP is committed to the explanation of its permitting requirements and in assisting, to the fullest extent possible, those persons whose activities require them to secure a state and/or federal permit.

The basic procedure for making application involves submitting three (3) complete application packages including the General Information Form and Environmental Assessment Form to the appropriate DEP Regional Office indicated on the **Application Mailing Instructions (page iii)**. One copy of the application will be retained by the Department, one will be forwarded to the Corps, and the third copy will be forwarded to the Pennsylvania Fish and Boat Commission.

Upon favorable review of the complete application package, the applicant may receive both state and federal permits for the project.

The following items explain some of the review procedures associated with the application process.

Pre-Application Conferences

The purpose of a pre-application conference is to improve communications between the potential applicant and the Department staff that will be reviewing any future permit application. Although this requires an investment of time, it is the Department's goal that these conferences result in improved applications being submitted by applicants. Likewise, DEP staff is afforded the opportunity to learn details about the project prior to reviewing the application.

Pre-application conferences are not required, but are available for anyone requesting a meeting. DEP does recommend the pre-application meeting for all first time applicants and for complex and technically difficult projects. DEP staff will review all of the application forms and documentation required to be completed by the applicant. They will also inform the applicant of any fees, reports or license agreements which may be required.

PASPGP

The PASPGP (Pennsylvania State Programmatic General Permit) authorizes the discharge of dredged, excavated or fill material or structures into waters of the United States and waters of the Commonwealth, including wetlands. The PASPGP is a federal Clean Water Act Section 404 Permit issued for the Commonwealth of Pennsylvania for processing approximately 80 percent of the applications received. If appropriate, DEP will provide both state and federal authorizations for the proposed project.

There is no additional initial work on the part of the applicant to initiate the PASPGP review process. All permit applications submitted to the Department will be reviewed to determine the scope of the work and the applicability of the PASPGP. If it is determined that the application does not qualify for this dual (state and federal) review by DEP, the application will be forwarded to the Corps for a separate federal review. All other applications will be processed entirely by DEP. In either case, the applicant will be advised as to which procedure his application is undergoing.

401 Water Quality Certification

A separate federal issue associated with the permit application process is the need for a Water Quality Certification under Section 401 of the Federal Water Pollution Control Act (33 U.S.C.A. 1341(a)). There is no need on the part of the applicant to initiate this review; it is initiated by the Department for each application that is submitted. If DEP approves an application and issues a Water Obstruction and Encroachment Permit, the

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review for the 401 certification will have been completed and the 401 certification will be included with the permit.

DEP Money Back Guarantee Permit Review Program

The purpose of the DEP Money-Back Guarantee Permit Review Program is to demonstrate DEP's commitment to providing timely permit decisions. Applicants who fail to receive an answer from DEP within the established deadline will automatically have their permit application processing fee returned. This program demonstrates the Department's commitment to timely decisions without sacrificing public review. It also recognizes the responsibility of the applicant to provide the Department with a complete application that meets agency requirements.

The time frame established for completing an application for the 105 program is 130 days. The applicant can assist the Department in meeting this goal by providing a complete application package. Therefore, it is important that the instructions contained in this booklet be followed very closely. Errors, omissions and other irregularities in the application package must be resolved before any detailed reviews of an application may begin.

Submerged Lands License Agreement

A Submerged Lands License Agreement (SLLA) will be required for any regulated water obstruction or encroachment to occupy submerged lands of this Commonwealth located in a navigable lake or river or stream declared a Public Highway. No separate action or application for such agreements is required by the applicant. Upon review of all applications for a **Water Obstruction and Encroachment permit**, DEP will determine if a SLLA is required. If one is required, it will be prepared and sent to the applicant for signature.

Growing Smarter Legislation

On June 22, 2000, Governor Tom Ridge signed into law "Growing Smarter" initiatives by amending the Municipalities Planning Code (MPC) with the new laws - Acts 67, 68 and 127. The new law also provides state agencies additional legal authority to consider local zoning ordinances and comprehensive plans in making certain permit and funding decisions.

To fulfill its obligation under these new laws, the Department of Environmental Protection (DEP) will take into consideration local land use plans and ordinances when reviewing permit applications.

APPLICATION MAILING INSTRUCTIONS

The set of three completed copies of the application, the General Information Form (GIF) and the Environmental Assessment Form (E.A.) with all other required documents, should be mailed or hand delivered to the appropriate DEP Regional Office. **PLEASE KEEP THIS SHEET FOR ANY FUTURE CORRESPONDENCE OR TELEPHONE CONTACTS WITH THE REGIONAL OFFICE.**

DEPARTMENT OF ENVIRONMENTAL PROTECTION REGIONAL OFFICES

Joint Permit Applications associated with oil and gas activities -

The Joint Permit Application and other associated documents must be sent to the appropriate DEP Bureau of Oil and Gas Management, Surfaces Permitting Section office listed below.

Bureau of Oil and Gas Management Surfaces Permitting Section

County Responsibility

Northwest Regional Office

230 Chestnut Street
Meadville, PA 16335
(814) 332-6860

Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson,
Lawrence, McKean, Mercer, Venango and Warren

Southwest Regional Office

400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-4024

Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene,
Indiana, Somerset, Washington and Westmoreland

Eastern Regional Office

208 W. Third Street, Suite 101
Williamsport, PA 17701
(570) 974-2602

Adams, Bedford, Berks, Blair, Bradford, Bucks, Carbon,
Cameron, Centre, Chester, Clearfield, Clinton, Columbia,
Cumberland, Dauphin, Delaware, Franklin, Fulton,
Huntingdon, Juniata, Lackawanna, Lancaster, Lebanon,
Lehigh, Luzerne, Lycoming, Mifflin, Monroe, Montgomery,
Montour, Northampton, Northumberland, Perry,
Philadelphia, Pike, Potter, Schuylkill, Snyder, Sullivan,
Susquehanna, Tioga, Union, Wayne, Wyoming and York

Joint Permit Applications not associated with oil and gas activities –

The Joint Permit Application and other associated documents must be sent to the appropriate DEP Permitting and Technical Service Section office listed below.

Permitting and Technical Services Section	County Responsibility
Northwest Regional Office 230 Chestnut Street Meadville, PA 16335 (814) 332-6984	Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren
Northcentral Regional Office 208 W. Third Street, Suite 101 Williamsport, PA 17701 (570) 327-0529	Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union
Northeast Regional Office 2 Public Square Wilkes-Barre, PA 18711-0790 (570) 826-2511	Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming
Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 (412) 442-4315	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
Southcentral Regional Office 909 Elmerton Avenue, Second Floor Harrisburg, PA 17110 (717) 705-4800	Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Southeast Regional Office 2 East Main Street Norristown, PA 19401 (484) 250-5970	Bucks, Chester, Delaware, Montgomery and Philadelphia

I. ACTIVITIES WHICH REQUIRE A PERMIT

- A. **GENERAL:** A Chapter 105 Water Obstruction and Encroachment permit is needed for any structure or activity which changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water. **Figure 1.1** shows a cross sectional view of a typical watercourse (stream, creek, river, etc.) and adjoining floodway.

Floodways (to carry the 100-year frequency flood) are determined in one of two ways. Many municipalities have flood insurance studies and maps prepared by the Federal Emergency Management Agency (FEMA) which indicate floodway boundaries. Inquiries to the local municipal government will disclose whether the floodway has been determined along a particular watercourse or body of water. In the absence of any FEMA determined floodway along a watercourse, the floodway shall be considered to extend 50 feet landward from the top of each streambank (refer to **Figure 1.1**).

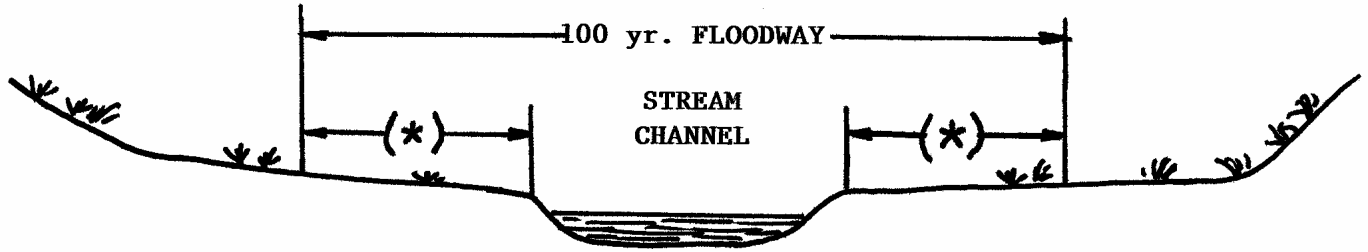
Bodies of water include both natural and artificial lakes, ponds, reservoirs, swamps, marshes and wetlands. In a few locations, FEMA has delineated a floodway along a body of water. However, in most cases, no FEMA floodway has been delineated and the 50-foot rule does not apply. A permit is required only if the structure or activity adjoins or encroaches into the body of water or into the floodway as defined by FEMA.

Under the Department's Chapter 106 Rules and Regulations additional permit requirements are placed upon the Commonwealth, political subdivisions of the Commonwealth and Public Utilities for activities, structures or an assembly of materials on the floodplain which may impede, retard or change flood flows. The difference between floodway and floodplain is illustrated in Figure 1.2. Since such activities and structures within the floodway portion of the overall floodplain are already regulated under the Chapter 105 Rules and Regulations, the Chapter 106 requirements are basically limited to that floodway fringe area shown in **Figure 1.2**. The same **Joint Permit Application** shall be used for both Chapter's 105 and 106 **Water Obstruction and Encroachment permits**.

- B. **PERMIT WAIVERS:** Before preparing a joint permit application, the applicant should review the availability of permit waivers for specified structures and activities. These waivers are listed under Section 105.12 of DEP's Chapter 105 Rules and Regulations and have been included in Appendix I of this section. Most of the waivers are automatic and do not need prior DEP approval. Any person using such waivers needs only to develop and retain such information as will verify their qualification to use a waiver. This information would be made available to DEP only if so requested as a result of a general inquiry or in the investigation of a complaint. The only exceptions to the "automatic" waivers concern subsections 105.12(a)(4), 105.12(a)(11), 105.12(a)(16) and 105.12(b)(2). These subsections require that any person wishing to use these permit waivers must first submit specified information to DEP for its review and approval.
- C. **GENERAL PERMITS:** Certain regulated structures and activities may qualify for permitting under one of 12 available Department General Permits. Specific limits and restrictions on use are contained in the instructions for each General Permit. Applicants need only to register their intent to construct the project in accordance with conditions of the general permit. Contact the appropriate DEP Regional Office (page iii) (for more information, visit us through the Pennsylvania homepage at www.state.pa.us or visit DEP directly at www.depweb.state.pa.us, keyword: Water Management) for copies of the General Permits. A list and brief description of the available General Permits are included in Appendix II of this section.

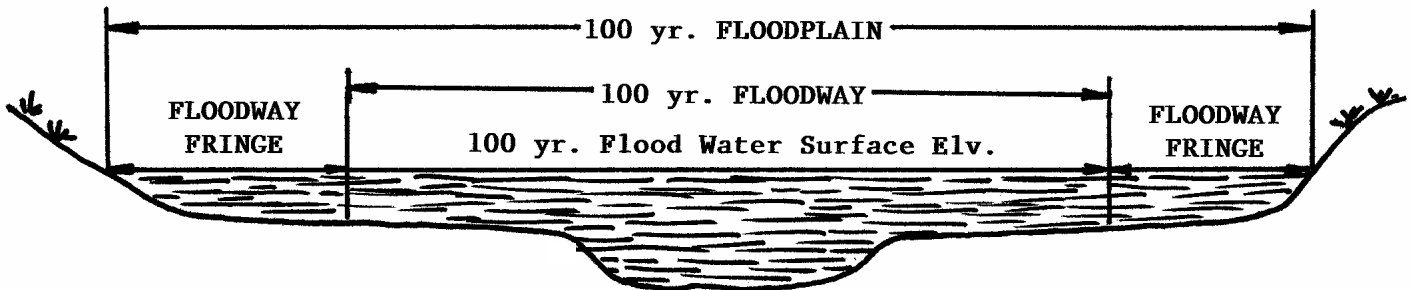
I. ACTIVITIES WHICH REQUIRE A PERMIT

FIGURE 1.1



(*) = DISTANCE FROM TOP OF BANK TO LIMIT OF FLOODWAY AS DETERMINED BY FEMA FLOOD INSURANCE STUDY. IF NO FEMA STUDY HAS BEEN COMPLETED, THIS DISTANCE WILL BE 50 FEET.

FIGURE 1.2



I. ACTIVITIES WHICH REQUIRE A PERMIT

- D. LIMITED POWER PERMITS:** These permits are required for all power projects consisting of complete units of improvements or development for the supply of water power or for the procuring or supply of light, heat or power, by electricity, consisting of changes in streams to develop water power or to supply water for stream power. When, upon review of a Joint Permit Application, it is determined that a Limited Power Permit is required, DEP will forward a separate Limited Power Permit application to the applicant.
- E. ENVIRONMENTAL ASSESSMENT FORM (E.A. FORM):** The Pennsylvania Department of Environmental Protection requires a review of all environmental impacts associated with activities (see EA Instructions 3930-PM-WM0017 and EA Form 3930-PM-WM0017A) or structures in watercourses, floodways, and/or bodies of water, including wetlands. If you are seeking a Water Obstruction and Encroachment Permit to "build in" reservoirs, lakes, ponds, swamps, wetlands, marshes, bogs, floodways, waterways, or open waters in Pennsylvania, an Environmental Assessment must be approved by the DEP as part of the permit review process. **The Environmental Assessment is a necessary part of a complete Chapter 105 Dam Safety and/or Water Obstruction and Encroachment Permit application.** If you are completing the Environmental Assessment as part of a permit application, several maps, plans and other information requested herein will have already been submitted via the application package and do not have to be duplicated. In these instances, please reference where in the application the information is provided. However, these documents must be included with the Environmental Assessment if a permit is not required. **IN THE FOLLOWING CIRCUMSTANCES, A CHAPTER 105 PERMIT IS NOT NECESSARY BUT AN APPROVED ENVIRONMENTAL ASSESSMENT IS REQUIRED:**

- §105.12(a)(11) - Waiver No. 11 removal of abandoned dams, water obstructions and encroachments.
- §105.12(a)(16) - Waiver No. 16 restoration activities associated within an approved DEP Restoration Plan.
- §105.15(b) - For structures or activities where water quality certification is required under Section 401 of the Clean Water Act (33 U.S. CA. §1341). These activities include but are not limited to Federal Nationwide Permits (NWP).
- §105.15(a)(2) and (3) - Non-jurisdictional dams that are located in wetlands or exceptional value water as defined in Chapter 93.

The Environmental Assessment for all Chapter 105 General Permits has been deemed approved by the Department. Therefore, the Environmental Assessment is not necessary when registering for use of a General Permit.

For further information regarding Environmental Assessments, please contact the Permitting and Technical Services Section in the appropriate DEP Regional Offices listed on page iii (Application Mailing Instructions).

II. WHICH TYPE OF PERMIT TO APPLY FOR

- A. **GENERAL:** If you do not qualify for a waiver or general permit, the Department's Chapter 105 Rules and Regulations allow for two types (Small Projects and Standard) of joint permit application to be made for a Water Obstruction and Encroachment Permit. A **Small Projects Application** may be made for projects in streams and floodplains where insignificant impacts on safety and protection of life, health, property and the environment can be demonstrated without detailed studies or engineering calculations. For all other projects including those projects affecting wetlands and those projects where safety and environmental impacts must be determined through technical studies, a **Standard Application** must be made. Either type of application can be made using the **Joint Permit Application forms**. The applicant shall indicate which type of application is being made at the beginning of the forms and then follow subsequent instructions to complete the application type indicated.
- B. **SMALL PROJECTS:** Small Projects are those water obstructions and encroachments located in a stream or floodplain which will have an "insignificant impact" (see definition below) on safety and protection of life, health, property and the environment as defined in Chapter 105.1 of the Department's regulations. **The Small Projects Application may not be used for projects located in wetlands.** Examples of small projects include, but are not limited to:

Bridges; culverts; streamside retaining walls; boat and other access ramps; docks; on-grade construction and excavations within the floodplain; low flow crossings; removal of flood debris; removal of limited amounts of unvegetated gravel bars; small buildings and similar structures within the floodplain; repair, reconstruction, widening, extension and replacement of existing water obstructions; and water pollution treatment devices.

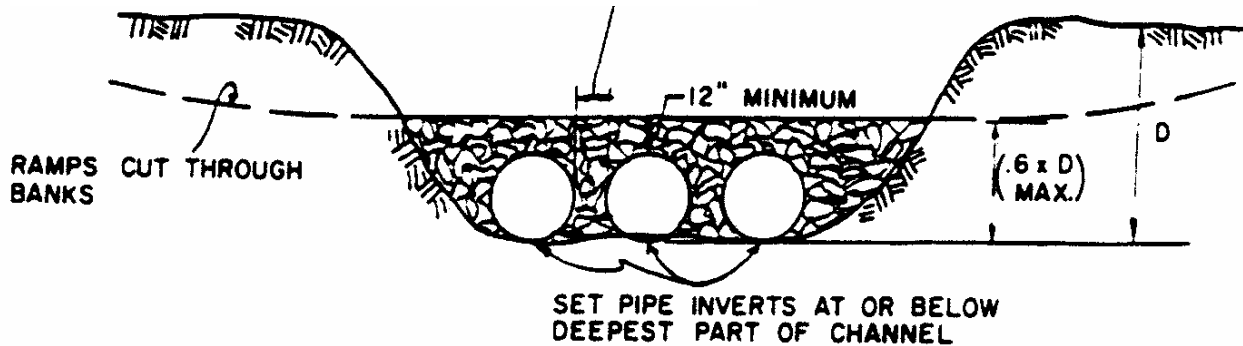
INSIGNIFICANT IMPACTS: Generally speaking, the size and scope of a small project must not represent an obvious resultant increase in local flood heights or patterns because the activity is small compared to the overall channel and/or floodplain size. In other cases, a project may appear to cause a localized increase in flood stages but such increases will be across open or unimproved land owned or placed under flowage easement by the applicant. The absence of any buildings or other structures in floodplain areas adjacent to the proposed project also helps to justify a small project. Similar criteria would apply to judging potential environmental impacts. **SPECIFIC LIMITING CRITERIA FOR SMALL PROJECTS APPLICATIONS INCLUDE:**

1. No work in wetlands.
2. No impacts to a Federal wilderness area or national historic site.
3. No impacts on the habitat of rare, threatened or endangered species based on a review of the PA Natural Diversity Inventory (the PNDI form is contained in the application package).
4. No significant impacts to public water supplies, high quality and exceptional value watersheds, scenic rivers, and wild and stocked trout streams.
5. Low flow culvert crossings and bridges must be constructed in accordance with the specifications and to the general configurations shown in SAMPLE DRAWINGS A1 AND A2. Fill placed for approach roadways must be minimal.
6. Except for low flow crossings, all new bridges and culverts should have a single waterway opening equal to or greater in width than the existing channel in the area of construction.
7. Channel excavation projects associated with existing bridges or culverts are generally limited to 50 feet above and below the structure.
8. Channel restoration work is generally limited to a total length of 200 feet to repair recent flood damages. Unvegetated gravel bars may be removed down to 6 inches above the water level at the time of construction. Channels may not be realigned except to restore pre-flood alignments. Construction equipment shall not be used in the stream channel unless absolutely necessary.

II. WHICH TYPE OF PERMIT TO APPLY FOR

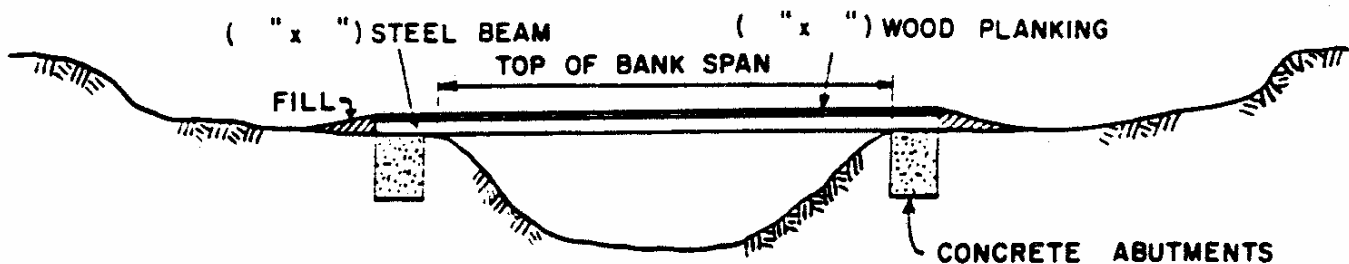
9. The cross sectional area of buildings or other structures placed in the floodplain must be insignificant compared to the overall size of the floodplain. The final grade of excavations, regradings, parking lots and similar work in the floodplain shall, on average, match the existing land surface grade. For structures, a letter is required from the local municipality indicating consistency with their local floodplain management program.
10. Sinkhole repairs in a watercourse must not use any materials regulated by the Solid Waste Act.

SAMPLE DRAWING A1: LOW FLOW CROSSING



- NOTES: (1) MAXIMUM HEIGHT OF STRUCTURES AND FILL PLACED IN THE CHANNEL MAY NOT EXCEED [.6 x D (AVG. CHANNEL DEPTH)]
- (2) SEE MANUFACTURERS' SPECIFICATIONS FOR SPACING AND OVERTOPPING FILL REQUIREMENTS

SAMPLE DRAWING A2: TYPICAL BRIDGE CROSSING



- NOTE: THIS SAMPLE DRAWING SHOWS A PROPOSED BRIDGE THAT DOES NOT INVOLVE PLACING ABUTMENTS OR PIERS WITHIN THE CHANNEL, IT HAS AN UNDERCLEARANCE THAT DOES NOT EXTEND BELOW THE LOWEST NATURAL STREAMBANK ELEVATION, AND THE PROJECT DOES NOT INVOLVE PLACING SUBSTANTIAL FILL TO BUILD UP THE APPROACHES. THEREFORE, STRUCTURE DIMENSIONS AND CONSTRUCTION MEET GUIDELINES CRITERIA.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

SECTION A - APPLICATION TYPE: Place an "X" in either the STANDARD or SMALL PROJECTS block to indicate type of application being made.

SECTION B - APPLICANT IDENTIFIER: Applicant Name: If privately owned, please list all owners. If owned by a partnership, please list all members. If owned by a corporation, a political subdivision, or a Commonwealth department, board, commission, receiver, trustee or authority, please list the name of the entity.

SECTION C - PROJECT LOCATION DATA:

- Provide the USGS name of the stream, river or body of water. If none, enter "unnamed". If wetland, enter "wetland". Provide the Chapter 93 Water Quality Standards designation (25 Pa. Code § 93).
- Place an "X" in the appropriate Corps District block. Baltimore District covers the Susquehanna River Basin; Philadelphia District covers the Delaware River Basin; Pittsburgh District covers the Ohio River basin, and portions of the Lake Erie and the Genessee River Basins located in Pennsylvania.
- Provide the name of the USGS 7 1/2 minute Quadrangle map where the project is located and provide the other site location information as requested. Each application must contain a project location map drawn to, or otherwise utilizing an existing 1:24000 scale (1 inch equals 2,000 feet). This is the scale used on U.S.G.S. 7.5 minute topographic maps. (A current list of USGS Map Dealers in Pennsylvania is available on the internet at www.usgs.gov). A photocopy of the appropriate U.S.G.S. topographic map, with the project site identified, is the recommended method to comply with this requirement). The photocopy must include a 3-inch radius of map coverage around the project site. If a U.S.G.S. photocopy is used for a location map, all the requirements of Subsection 105.13(d)(1)(ii) of DEP's regulations will be satisfied. Refer to that subsection for required location map features if another type, or hand drawn map is used.
- Provide a concise and accurate narrative of the project type, purpose and need.

SECTION D - PROJECT STATUS: Has Any Portion Of The Proposed Project Been Authorized?: Please mark yes and the date authorized. Please attach a detailed description of those portions of the project that have been authorized. This information should be consistent with the information provided in a completed "PASPGP-4 Cumulative Impact Project Screening Form" (3930-PM-WM0050) (see Section F, Checklist Item "e").

SECTION E - COMPLIANCE REVIEW: Place an "X" in either the YES or NO block to indicate if applicant (owner and/or operator) are currently in violation of any permits issued by the Department. If YES – complete the necessary information for questions 1 – 3. Use additional sheets of paper, if required, and attach to application.

SECTION F - APPLICATION COMPLETENESS CHECKLIST: Applicant must place an entry - Y = Yes, N = No, N/A = Not Applicable - for each requirement in the column designated as Applicant Entry. If you are applying under the **Small Projects Application** format, place an entry in only those spaces prefixed by an asterisk (*).

The Department's review of all applications begins with a determination of completeness. If an application package is incomplete, the Department will correspond with the applicant and request submission of corrected and/or previously omitted documents. The Department's 130-day goal for review and decision of permit applications will not begin until a complete application has been received. See

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

Section 105.13 of the DEP's Chapter 105 Rules and Regulations for specific requirements. Additional guidance for the required checklist items is as follows:

CHECKLIST ITEMS:

- a. **General Information Form (GIF):** Complete and attach to each copy of the application package, the "PERMIT APPLICATION - GENERAL INFORMATION" form. Additional instructions for completing this form are provided at the front of the application package. **Permit application properly signed, sealed and witnessed:** See detailed instructions contained in **Section I** of the permit application.
- b. **Application Fee enclosed (see Section G):** Please attach the check made payable to "**Commonwealth of Pennsylvania**" to the front of the application package.
- c. **Copies and proof of receipt - Acts 14/67/68/127 notification:** Act 14 Municipal and County Notification requires that the Department wait 30 days from the date of project notification to both the local and county governments before issuing its permit(s). DEP must receive a copy of the Act 14 notification letters to each affected municipality and **proof** that each municipality received the notification. DEP is specifically inviting the local municipality and the county to submit comments to DEP related to comprehensive plans and zoning ordinances under Acts 67 and 68. Act 14 notices must be amended to include specific language as outlined on the sample notification letter (see Appendix VII).
- d. **Cultural Resource Notice:** Complete and attach to each copy of the application package, completed form "Cultural Resource Notice" for the determination of historic/archaeological sites. Also attach a copy of the return receipt and, when applicable, the PHMC review letter. Additional instructions for completing this notice is provided with the form.
- e. **Pennsylvania State Programmatic General Permit -4 (PASPGP-4) Cumulative Impact Project Screening Form:** Complete and attach to each copy of the application package, the "PASPGP-4 Cumulative Impact Project Screening Form" (3930-PM-WM0050) to determine the appropriate PASPGP-4 review procedure. Additional instructions for completing this screening are included on the form.
- f. **Bog Turtle Habitat Screening:** Bog Turtle Habitat screening is required for permit applications which may impact wetlands in the following counties: Adams, Berks, Bucks, Carbon (Aquashicola Creek Watershed only), Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill (Swatara Creek Watershed only) and York. Complete and attach to each copy of the application package, the "Request for a Bog Turtle Habitat Screening" (3930-PM-WM0550) and a copy of either a "No Effect" determination from the Army Corps of Engineers or a copy of documented clearance from the US Fish and Wildlife Service.
- g. **Pennsylvania Natural Diversity Inventory (PNDI) Search:** The PNDI Project Environmental Review Search Receipt indicating that potential conflicts have been resolved with appropriate resource agencies. Include this receipt and where applicable, the initialed Avoidance Measures and natural resource agency(ies) written recommendations with your Chapter 105 environmental assessment or permit application submission. A copy of this information must be attached to each copy of the application submission. Activities conducted under this permit beyond one year of the date acknowledged will require the submission of an updated PNDI Receipt
- h. **Plans:** The applicant must prepare a site plan, cross-sectional drawings and any other drawings as needed to clearly illustrate, in graphic form, the specific construction details and potential hydraulic impacts of the proposed project. These plans must be submitted on size 8 ½" x 11" paper or on

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

larger sized paper provided each sheet is individually folded to 8 ½" x 11" size. Any plans received in rolls or that have not been folded to the proper size will be discarded and will be sufficient cause to consider the application incomplete. All drawings shall contain a title block at the lower right corner of the sheet. The title block shall contain the project name, name of the applicant, name of the plan PREPARER (if different then the applicant) and the date the plan was prepared.

- (1) **Site Plan:** A site plan must be included in the application which provides a complete plan view of the proposed structure or activity and those adjoining upstream and downstream areas where potential and/or actual hydraulic or environmental impacts will occur (see Sample Site Plans). Specific requirements are as follows:
 - (a) Plans shall clearly show existing and proposed limits for all regulated waters of this Commonwealth (edges of streams, rivers, lakes, swamps, bogs, marshes, wetlands, ponds or reservoirs) and the limits of their floodplains. When the proposed worksite is located within a detailed Federal Emergency Management Agency (FEMA) flood insurance study area, the existing and proposed FEMA 100-year frequency **floodway** limits must be shown on the site plan. When the project involves impacts to wetlands, the wetland boundaries must be delineated in accordance with the Department's Wetland Delineation Policy (see Environmental Assessment Form).
 - (b) Plans must be drawn to a scale of 1 inch equals 200 feet or larger and show all proposed structures or activities and all existing roads, utility lines, lots (show property lines and names of adjoining property owners), buildings and other man-made structures in the area of the proposed project. Natural features such as contours, surface drainage patterns and other prominent topographic features should be illustrated. A north arrow must be placed on the site plan.
 - (c) When required under subsection 105.13(i) of the Department's regulations, the plans must be affixed with a registered professional engineer's seal and certification.
 - (2) **Cross Sectional Drawings:** A cross sectional drawing of existing and proposed conditions at the project site must be included on the site plan or on a separate plan (see Sample Plans in Appendix IV). If the proposed project causes changes in upstream or downstream flood water surface elevations, cross sectional drawings are required for the channel and floodway conditions in these areas. All cross sections must show existing and proposed design discharge water surface elevations and the 100-year frequency flood water surface elevation.
 - (3) **Profiles:** Certain regulated activities require that a plan profile drawing be prepared. Profiles require that the streambed, normal water surface and flood water surfaces be plotted (see Figure III-2). This requirement is listed under (and must be completed for) the following subsections:
 - 105.151 - Culverts and Bridges
 - 105.191 - Stream Enclosures
 - 105.231 - Channel Changes and Dredging
 - 105.261 - Fills, Levees, Floodwalls and Streambank Retaining Devices
- i. **Location map:** Provide an 8 ½" x 11" copy of a 7.5 minute U.S.G.S. quad map with map name.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

- j. **Project description narrative:** Provide a detailed description of the project including structure type(s), amounts of excavation/fill and what purpose the activity will serve. For example: **The project will consist of placing a 48-inch CM pipe culvert in Pine Creek with 2 feet of rock fill overtop to provide vehicle access to our new home. There is no other existing access to this site.** The narrative must also describe in detail what effects the project will have on public health, safety and the environment. The narrative must contain a statement on why the project must be built in, along, across or over a watercourse, floodway or body of water. Is there an alternative to the proposed project that would not require such impacts?
- k. **Color photographs with map showing location taken:** Provide color photographs of the proposed site that accurately depict the project area and areas of proposed impact. In addition, provide a relative scale of the project to the surrounding area and a map showing the location and orientation of each photograph. The number of photographs needed to meet this requirement will vary with the size and/or length of proposed work. For singular or small worksites such as a bridge project, two photographs taken at the site, one looking upstream and one looking downstream, may be all that is required if the adjoining channel reaches and overbank areas are not obscured by trees, brush or similar visual impediments. In such cases, additional photos will be needed looking upstream and downstream to the bridge site. Also, more photos may be required in overbank areas to show the relative location, elevation and condition of nearby buildings and the area that the bridge approach roadways will occupy. For extensive projects such as channel realignment or restoration projects, photos looking upstream and downstream should be taken at regular intervals along the proposed workreach. Again, the interval of these photo reference sites will be dictated by the degree of visual impediments existing along the proposed workreach.

Three sets of color photographs (one set for each permit application package) are required and they should be mounted in transparent photo holders or glued/taped to a 8 ½" x 11" piece of cardboard. The photo reference number, in ink, should be placed on the lower left corner of each photo along with the date the photo was taken. To the photograph sheet(s) attach a copy of the general site plan and mark the site of each photo (number) on the map (See Sample Photo Reference Map in Appendix III). From the photo site, draw a short arrow in the direction that the photo was taken.

- l. **Environmental Assessment form:** An incomplete Environmental Assessment form will result in the entire application being considered **INCOMPLETE**. Please refer to "Environmental Assessment Form (E.A. Form) Instructions."

STOP IF YOU ARE APPLYING FOR A SMALL PROJECTS PERMIT. YOU HAVE COMPLETED ALL THE NECESSARY REQUIREMENTS FOR ATTACHMENTS TO THE APPLICATION PACKAGE UPON REACHING SECTION F, ITEM j. GO TO SECTION G AND COMPLETE THE REST OF THE APPLICATION.

IF YOU ARE APPLYING FOR A STANDARD PERMIT, CONTINUE ON TO COMPLETE SECTION F, ITEMS k. THROUGH r. AND THEN THE REST OF THE APPLICATION.

- m. **Erosion and Sediment Control Plan and approval letter:** Attach copies of a letter of plan approval from the appropriate county conservation district and copies of the actual Erosion and Sediment Control Plan that was approved.
- n. **Hydrologic and hydraulic analysis:** This analysis should be prepared as a separate report and contain the seal and certification statement of the licensed Professional Engineer who prepared the report, when appropriate. The following is a **suggested** format to be used in the preparation of a **HYDROLOGY AND HYDRAULICS (H & H) Report**. Under each section title, a discussion is presented on what information is required and where to secure that information.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

- (1) **SITE HISTORY AND CONDITIONS:** List all historical flood data that can be secured for this site or structure including existing conditions and problems. Typical items to be addressed include:
- (a) Flood records. This can be flood records secured from nearby U.S.G.S. gaging stations, municipal flood records or eyewitness accounts by area residents. Flood events must be presented as either a discharge rate, such as cubic feet/second or as a high water mark indexed to local elevations or referenced to a point on a local permanent structure. All flood events must be dated. If known, list past flood damages to homes or other structures in the project area.
 - (b) Site Conditions. State what flooding problems exist at this site (if any) that will be corrected by the proposed project. Note any adverse influences on site conditions caused by nearby structures such as bridges, culverts, fills, etc.
- (2) **HYDROLOGY:** The objective of this part of the report is to list, or show the calculations performed to determine the design and 100-year frequency flood discharges for the proposed worksite. If the site is located within the limits of a detailed Federal Emergency Management Agency (FEMA) flood insurance study, contact the local municipality to find the 100-year and other frequency flood discharges. No other listed or computed flood discharges will be accepted for sites located within a FEMA detailed flood study area.

In the absence of any flood records, studies or other published flood records, the design and 100-year frequency flood discharges must be determined through the use of currently accepted methods for determining rainfall and runoff amounts.

- (a) **RAINFALL DETERMINATIONS - The Department recommends use of the following to determine rainfall amounts or intensities.**
 - (i) **Rainfall Duration Frequency Tables for Pennsylvania** - This DEP publication may be obtained by sending a request to:

DEP - Bureau of Watershed Management
Division of Water Use Planning
10th Floor, Rachel Carson State Office Building
P.O. Box 8555
Harrisburg, PA 17105-8555
 - (ii) **SCS TR-55, Urban Hydrology for Small Watersheds** - Copies of SCS's TR-55 may be obtained by contacting:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone (703) 487-4650

Publication Number: NTIS # PB87-101580/AS
 - (iii) **Weather Bureau Technical Paper 40, U.S. Department of Commerce, Hershfield, D.M.** - This publication is no longer in print although past copies are still in wide use by engineering consultants. It is the basis for the rainfall maps included in TR-55.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

(b) **RUNOFF CALCULATIONS - The Department recommends the use of the following methods to determine design and 100-year frequency flood discharges:**

- (i) **Rational:** This method is widely discussed and explained in engineering/hydrology texts. We recommend reference to the discussion and use of the worksheets contained in the Department's **Erosion and Sediment Pollution Control Program Manual**. This manual can be obtained by contacting:

DEP - Bureau of Watershed Management
Division of Waterways, Wetlands and Stormwater Management
10th Floor, Rachel Carson State Office Building
P.O. Box 8775
Harrisburg, PA 17105-8775
Telephone (717) 787-6827

- (ii) **SCS TR-55, Urban Hydrology for Small Watersheds:** See previous reference under Rainfall Determinations, Part ii. for where to obtain copies.

- (iii) **Procedure PSU-IV for Estimating Design Flood Peaks on Ungaged Pennsylvania Watersheds (manual and computerized versions).**

- (iv) **Other Methods and Computer Models:** The use of other hydrology methods including computer programs will be accepted on a case by case basis. All submissions must be clear and adequately illustrated with factors, coefficients and other components clearly referenced. Input data and results from computer models must be summarized or listed for review.

NOTE: Usual practice is to use two separate methods to compute and compare site hydrology.

- (3) **HYDRAULIC ANALYSIS:** This part of the report must clearly demonstrate the difference in hydraulic capacity, stability and flood water surface elevations between existing and proposed conditions. For example, if the proposed project is to consist of enlarging a 500-foot reach of channel for flood control, the capacity of both the existing channel section and proposed channel section must be computed. This will also produce flow velocities from which channel stability may be reviewed. Finally, the design and 100-year frequency flood water surface elevations may be plotted. The amount of increase in flood water surface elevations allowed under the Chapter 105 Rules and Regulations varies with the type of structure/activity and its location.

The Department recommends the following computational methods or programs be used for hydraulic analysis:

- (a) **Mannings Equation -** Used to determine the capacity of, and flow velocity within, open channel sections. Refer to the Department's Erosion and Sediment Pollution Control Program Manual for details on how to use Mannings Equation.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

- (b) Hydraulic Design of Highway Culverts, HDS No. 5, U.S. Department of Transportation, FHA. This publication is used to determine the capacity of, and water surface elevations for flow through culverts and some small bridges. There is also a computer version titled HY-8. This publication may be obtained by contacting:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone (703) 487-4650

Publication Number: NTIS # PB86-196961/AS

- (c) HEC-2 Water Surface Profiles, U.S. Army Corps of Engineers. This is a computer program used for backwater analysis of existing and proposed channel conditions. This, or a similarly detailed backwater analysis, is required to establish the changes (if any) in flood water surface elevations caused by the proposed project. This program may be obtained through the Corps or from various commercial software retailers.
- (d) HEC-RAS River Analysis System. This is a computer program which allows the user to perform one-dimensional steady flow, unsteady flow, and sediment transport calculations. Information on this program can be obtained from:

U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, CA 95616
Telephone (916) 756-1104

The Chapter 105 Rules and Regulations contain specific permit application information requirements (in addition to those in Section 105.13) and design, construction, operational and/or maintenance approval criteria under the following Subchapters:

Subchapter C. Culverts and Bridges

Subchapter D. Stream Enclosures

Subchapter E. Channel Changes and Dredging for Facility Construction and Maintenance

Subchapter F. Fills, Levees, Floodwalls and Streambank Retaining Devices

Subchapter G. Stream Crossings, Outfalls and Headwalls

Subchapter H. Docks, Wharves and Bulkheads

Subchapter I. Commercial Dredging

Subchapter J. Discharges of Dredged or Fill Material

The applicant must demonstrate in the H & H report that all appropriate Subchapter requirements have been met. An outline for a suggested Hydrology and Hydraulics Report is listed in Appendix V.

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

- o. **Stormwater Management Analysis w/consistency letter:** Water obstructions and encroachments requiring DEP permits are often additionally regulated under local municipal stormwater control ordinances adopted under the Stormwater Management Act (32 P.S. §§ 680.1-680.17). If such an ordinance exists, an analysis of the proposed project's impact on the Stormwater Management Plan must be undertaken and reviewed by the local municipality. The analysis and a letter of review from the municipality must be included in the application package.
- p. **Floodplain Management Analysis w/consistency letter:** If the proposed water obstruction or encroachment is located within a floodway delineated on a FEMA map, an analysis of the project's impact on the floodway delineation and water surface profiles may be required. The analysis and a letter of review from the municipality must be included in the application package.
- q. **Risk Assessment:** If the stormwater and/or the floodplain management analysis conducted under items l or m indicate increases in peak runoff rates or flood elevations, include as a separate document, 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.
- r. **Professional engineer's seal and certification:** If the proposed water obstruction or encroachment poses a threat to human life or substantial potential risk to property, the plans, specifications and reports accompanying such applications 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., Section 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 Protection."

- s. **Alternatives Analysis:** As a separate document, an analysis must be performed detailing practicable alternatives to the proposed activities, including alternative locations, routings, designs, etc., to avoid or minimize adverse environmental impacts.
- t. **Mitigation plan:** The mitigation plan must be a separate document which describes how project planning employed mitigation concepts as defined in DEP's Chapter 105 Rules and Regulations. If these impacts cannot be eliminated, then the mitigation plan must include details and plans for replacing the impacted environment. The specific replacement resources or environments must be itemized and construction, operation and maintenance activities must be detailed in the plan. As defined under Section 105.1 of DEP's Chapter 105 Rules and Regulations, **Mitigation** is:
 - (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.**

III. COMPLETING THE JOINT PERMIT APPLICATION FORM

- (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.

SECTION G - DETERMINATION OF APPLICATION FEES:

Specific types of water obstructions and encroachments and their corresponding permit fees are shown on the "**DETERMINATION OF APPLICATION FEES**" chart. If the proposed activity does not readily fit into any of the types listed, reference should be made to the definitions for projects which consist of "**water obstruction**", "**encroachment**", "**stream enclosure**", "**fill**" and "**levee**" in Section 105.1 of the Chapter 105 Rules and Regulations. Reference should also be made to the definition for Small Projects. Projects involving stream enclosures, commercial dredging and peat extraction must always be submitted under the Standard Joint Permit Application and the fees listed paid.

The "Number of Units" column shall be used to indicate the total number of each type of water obstruction or encroachment being applied for. For example, if two bridges are to be constructed, enter the number 2 in the "Units" column and \$400.00 in the "Subtotal Amount" column. Do not include as separate units, those appurtenant or supplementary activities. For example, if a bridge is to be built and includes channel change work in the immediate area of the bridge, there will be no separate fee charge under "channel changes" for this work. However, if the proposed channel change work is to be located an extended distance upstream or downstream from the bridge site, then a separate fee charge would apply.

There will be a single fee of \$100.00 for Small Projects applications regardless of the number of water obstructions or encroachments included in the application.

The determination of application fees is for the DEP permit only. Upon receipt of a copy of the application package, the U.S. Army Corps of Engineers will determine if any federal permit application fees apply. If fees are required, the applicant will be so advised.

SECTION H - ADJOINING PROPERTY OWNERS: List the name and address of all property owners whose properties adjoin the project site property.

SECTION I - CERTIFICATION AND SIGNATURE: Please read instructions on form.

APPENDIX I PERMIT WAIVERS

"§ 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 non-navigable stream or wetland by electric, telephone or communication 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 a 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 control), if the facility was constructed and continues to be maintained for the designated purpose.

**APPENDIX I
PERMIT WAIVERS**

- (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.**

**APPENDIX I
PERMIT WAIVERS**

- (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."

Note: Fish Commission references are now Fish and Boat Commission.

APPENDIX II GENERAL PERMITS

BDWW-GP-1 FISH HABITAT ENHANCEMENT STRUCTURES

Used for the installation, operation and maintenance of fish habitat enhancement structures in the regulated waters of this Commonwealth.

BDWW-GP-2 SMALL DOCKS AND BOAT LAUNCHING RAMPS

Used for the installation, operation, modification and maintenance of small docks and boat launching ramps in and along the regulated waters of this Commonwealth.

BDWW-GP-3 BANK REHABILITATION, BANK PROTECTION AND GRAVEL BAR REMOVAL

Used for 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.

BDWM-GP-4 INTAKE AND OUTFALL STRUCTURES

Used for the construction, operation and maintenance of intake and outfall structures in, along, across or projecting into the regulated waters of this Commonwealth.

BDWM-GP-5 UTILITY LINE STREAM CROSSINGS

Used for the installation, operation and maintenance of utility line stream crossings of the regulated waters of this Commonwealth.

BDWM-GP-6 AGRICULTURAL CROSSINGS AND RAMPS

Used for the installation, operation and maintenance of agricultural crossings and ramps in the regulated waters of this Commonwealth.

BDWM-GP-7 MINOR ROAD CROSSINGS

Used for: (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 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.

BDWM-GP-8 TEMPORARY ROAD CROSSINGS

Used for the construction, operation and maintenance of temporary road crossings of the regulated waters of this Commonwealth.

BDWM-GP-9 AGRICULTURAL ACTIVITIES

Used for the installation, operation, modification and maintenance of certain agricultural activities that encroach into streams and their floodways or bodies of water wholly or partially within or forming part of the boundary of this Commonwealth. Such approved activities include 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

APPENDIX II GENERAL PERMITS

operation and shall only be implemented as part of a conservation plan consistent with the 25 PA Code, Chapter 102 Regulations and approved by the county conservation district.

BDWW-GP-10 ABANDONED MINE RECLAMATION

Used for 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.

BWM-GP-11: MAINTENANCE, TESTING, REPAIR, REHABILITATION, OR REPLACEMENT OF WATER OBSTRUCTIONS AND ENCROACHMENTS

Authorizes the maintenance, testing, repair, rehabilitation and replacement of existing water obstructions and encroachments including currently serviceable bridges, culverts, utility lines, and docks. The applicant will be required to register the project by submitting written notice and all applicable information to the department.

BWQP-GP-15 PRIVATE RESIDENTIAL CONSTRUCTION IN WETLANDS

Used for 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 0.50 acre of non-tidal wetlands.

APPENDIX III
OUTLINE FOR SUGGESTED HYDROLOGY AND HYDRAULICS REPORT FORM

The following is an outline for suggested Hydrology and Hydraulics report format.

HYDROLOGY AND HYDRAULIC REPORT
(NAME OR IDENTIFICATION NUMBER OF STRUCTURE/ACTIVITY)
(STATION #, MILE POST MARKER # OR OTHER SPECIAL IDENTIFICATION)
(NAME OF STREAM, RIVER OR BODY OF WATER IF NOT LISTED ABOVE)
(MUNICIPALITY)
(COUNTY)

1. SITE HISTORY AND CONDITIONS
 - a. Flood records
 - b. Site conditions

2. HYDROLOGY
 - a. Rainfall determinations
 - b. Runoff calculations or listing of existing determinations.

3. HYDRAULIC ANALYSIS
 - a. Hydraulic calculations for capacity of existing and proposed conditions.
 - b. Flood water surface calculations/determinations (develop profiles, maps and cross sectional drawings).
 - c. Streambed/streambank stabilization study. Design of remedial measures.
 - d. Determination if Risk Assessment is required.
 - e. Attachments, computer runs, etc.

APPENDIX IV SAMPLE - REQUIREMENTS FOR A PROPOSED BRIDGE

The following is provided as an example of requirements for a proposed bridge (Subchapter C) and a recommendation on how to complete these requirements.

EXAMPLE 1: PROPOSED BRIDGE

"Subchapter C. CULVERTS AND BRIDGES

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.** [This is basically a duplication of the "site plan" requirement specified under Section 105.13(d)(1)(i). Accordingly, a separate "H & H" site plan is not required.]
- "(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.**" [See Sample Drawing A2 for an example of a profile drawing. Such profiles may be hand drawn or computer generated. When a project is located in a FEMA flood study area, a photocopy of the FEMA profile must be used with the altered flood water surfaces clearly shown.]
- "(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.**" [The "hydrologic" portion of analysis will be completed as previously discussed (see pages 9-11). The level of hydraulic analysis required (see pages 11-12) will depend on the actual structure proposed, its impacts and the potential threat to nearby homes and other properties. New or replacement bridges must be analyzed relative to the changes in flood water elevations between existing and proposed conditions. In subsequent portions of this example, specific design criteria will be listed and this must be used in the analysis.

"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.** [Based on the results of the hydraulic analysis, additional calculations may be required to demonstrate that the structure will pass design flows without damages to abutment footers, wingwalls, etc., or from overtopping during larger flood events.]
 - "(2) **The structure may not create or constitute a hazard to life or property, or both.**" [The results of the hydraulic analysis must clearly demonstrate that the proposed structure will not increase flow

**APPENDIX IV
SAMPLE - REQUIREMENTS FOR A PROPOSED BRIDGE**

velocities or flood water elevations to the extent of adversely impacting or threatening life or property.]

- "(3) **The structure may not materially alter the natural regime of the stream.**" [This typically refers to creation of standing water upstream, or increased flow velocity downstream of the proposed structure that would permanently alter normal stream flow characteristics. The hydraulic analysis must demonstrate that neither condition will occur.]
- "(4) **The structure may not so increase velocity or direct flow in a manner which results in erosion of stream beds and banks.**" [This refers to a change in downstream flow direction and/or increase in flow velocity that would cause damage to the stream bed or banks. The hydraulic analysis must demonstrate that flows exiting the structure are not sufficient to initiate erosion of the existing stream bed or banks. If exit velocities will initiate erosion, the analysis must then include the hydraulic design of energy dissipaters, rock riprap or similar stabilization works needed to offset the effects of the proposed structure. Refer to the Department's Erosion and Sediment Pollution Control Manual for additional discussion on design considerations for these problems.]
- "(5) **The structure may not significantly increase water surface elevations.**" [This is a critical requirement and must be analyzed on a case by case basis. See the following subsection (e) for additional specific requirements.]
- "(6) **The structure shall be consistent with local flood plain management programs.**" [This requirement may be satisfied through compliance with Section 105.13 (d)(1)(vi) requirements. This requirement also applies to local flood plain management programs where no detailed FEMA flood studies have been completed.]
- "b. **In determining flood flows and frequencies for purposes of this subchapter, hydrologic analysis shall be by methods generally accepted in the engineering profession.**" [Actual recommendations have been made in the "HYDROLOGY" section (see pages 9-11).]
- "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.**
- [These requirements are self explanatory. However, the Department will review, on a case by case basis, requests to lower or raise this criteria due to geological, environmental, future development and other unique site conditions.]
- "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.**" [This requires the applicant to check with the local municipality and/or county planning commission to determine projected development in the watershed and to determine any municipal design requirements in excess of those listed in subsection (c). Based on the results of such inquiry, the design flow for the project may be adjusted to fit these requirements.]

**APPENDIX IV
SAMPLE - REQUIREMENTS FOR A PROPOSED BRIDGE**

- "e. **The structure 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 the 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 and Economic Development, Governor's Center for Local Government Services, 4th Floor, Commonwealth Keystone Building, Harrisburg, Pennsylvania 17120.**" [This requires that a hydraulic analysis be performed that clearly demonstrates that the proposed work will not cause more than the allowable increase in flood water surface elevations. If the analysis shows more than the allowable increase, then the applicant should consider project redesign. If a redesign is not possible, then a risk assessment must be prepared and attached to the application package. The applicant would mark "Y" (Yes) for the "Risk Assessment" (Section F o) on the Application Completeness Checklist on Page 2 of the application. The Risk Assessment must clearly demonstrate that the increased flood water surfaces will not cause an increased flooding threat to life, property or the environment. When located in a FEMA flood study area, the Risk Assessment must include documentation that the municipality has contacted FEMA about the proposed flood water surface increases and will be taking those necessary steps to revise the FEMA flood study to reflect such increases.]

****The above provides a good example of how, in completing one mandatory permit application requirement, the need for a secondary requirement is established. In this case, if the hydraulic analysis shows flood water surface increases within the allowable limits, no risk assessment would be required and on page 2 of the application, an entry of "N/A" (not applicable) would be made for "Section F o" of the Application Completeness Checklist. If the allowable limits are exceeded, then the Risk Assessment must be prepared and "Section F o" on the checklist would be marked with a "Y" (yes).

The example will end at this point. However, the applicant should be aware that if working on a real application, similar considerations as discussed would be required for the remaining subsections 105.162 through 105.166, concerning culverts and bridges.

**APPENDIX V
LETTER FROM APPLICANT TO MUNICIPALITY AND COUNTY
TO SATISFY ACTS 14, 67, 68 and 127**

Note: This letter may be duplicated and used as a fill-in form letter, with one copy to be addressed and sent certified mail to the County Commissioners or Clerk for county notification; and to the Secretary, Township Supervisors, Manager, Mayor or Borough Council, as appropriate for municipal notification.

Date _____

Dear _____:

The purpose of this notice is to inform you of our intent to submit an application to the Pennsylvania Department of Environmental Protection (DEP) for the following application:

1. Project Name: _____
2. Project Description: _____

3. Applicant Name: _____
4. Applicant Contact: _____
(provide name, address and phone #)
5. Site Location: _____
6. Municipality/County: _____

Section 1905-A of the Commonwealth Administrative Code, as amended by Act 14, requires that each applicant for a DEP permit must give written notice to the municipality(ies) and the county(ies) in which the permitted activity is located. The written notices shall be received by the municipality(ies) and county(ies) at least 30 days before the Department may issue or deny the permit.

"Acts 67 and 68, which amended the Municipalities Planning Code to support sound land use practices and planning efforts, direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities or infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the Municipalities Planning Code. Enclosed is a General Information Form (GIF) we have completed for this project. DEP invites you to review the attached GIF and comment on the land use aspects of this project; please be specific to DEP when identifying any areas of conflict. If you wish to submit comments for DEP to consider in a land use review of this project, you must respond within 30 days to the DEP regional office listed below. If there are no land use comments received by the end of the comment period, DEP will assume that there are no substantive land use conflicts and proceed with the normal application review process."

Please submit any comments concerning this project within 30 days from date of receipt of this letter to the DEP Permitting and Technical Services Section at _____

For more information about this land use review process, please visit www.depweb.state.pa.us, (keyword: Land Use Reviews).

Sincerely,

Enclosure (completed GIF)