

2012 Industry Training Workshops

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Stream Crossings



During this presentation, we will cover:

- The various GP's in Chapter 105
- The GP's that apply to Oil and Gas Activities
- Common Terminology
- Authorizations and Forms
- Waivers
- The applicability of the GP for Oil and Gas Activities...what is needed (when and where)
- Permit Conditions of the GP
- Notification Requirements
- Registration Requirements
- The GP Registration Process (who does what)
- Areas of Concern
- PA State Programmatic General Permit
- Joint Permit (Standard and Small Project)

The GP's

- GP-1 Fish Habitat Enhancement Structures
- GP-2 Small Docks & Boat Launching Ramps
- GP-3 Bank Rehabilitation, Bank Protection & Gravel Bar Removal
- GP-4 Intake and Outfall Structures
- GP-5 Utility Line Stream Crossings
- GP-6 Agricultural Crossing & Ramps
- GP-7 Minor Road Crossings
- GP-8 Temporary Road Crossings
- GP-9 Agricultural Activities
- GP-15 Private Residential Construction in Wetlands

Chapter 105- General Permits most commonly related to Oil and Gas Activities

- GP-4 Intake and Outfall Structures
- GP-5 Utility Line Stream Crossings
- GP-7 Minor Road Crossings
- GP-8 Temporary Road Crossings

Common Terminology

- PNDI-PNHP
- SLLA
- ACT 14
- Drainage Area
- FEMA Floodway
- Encroachment
- Water Obstruction
- Utility Line
- Watercourse

Pennsylvania Natural Diversity Inventory (PNDI)

Pennsylvania Natural Heritage Program (PNHP)

Location and status of important ecological resources (plants, vertebrates, invertebrates, natural communities and geologic features).

All searches resulting in a conflict must be resolved prior to a general permit being issued.

The common goal is the conservation of Biodiversity, resource conservation and preservation.

PNDI Tool Update

Effective July 2, 2012 PNDI receipts and clearance letters issued by the jurisdictional agencies will be valid for two years.

<http://www.naturalheritage.state.pa.us/>



SLLA

Submerged Lands License Agreement

Waters and permanently or periodically inundated lands owned by the Commonwealth (Submerged Lands of 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.

If applicable, the owner must obtain a SLLA authorizing the occupation.

The SLLA **must be** obtained prior to the utilization of any general permit or in conjunction with an individual Chapter 105 permit.



ACT 14



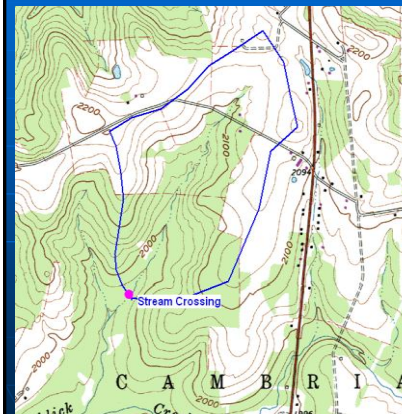
Requires every applicant for a new, amended or revised Department permit to give written notice to each municipality and county government in which the activity is to occur. The written notice must be received by the municipality and county government at least thirty (30) days before the Department may issue or deny an application.

The purpose of this letter is to inform the municipality or county of your intent to submit an application to DEP.

Drainage area

The drainage area is the total surface area upstream of a point on a stream, where the water from rain or snowmelt which is not absorbed into the ground flows over the ground surface back into streams to finally reach that point on the stream.

Drainage area



Distance Information	
Start:	040° 31' 23.00" N 078° 43' 50.28" W
Start elevation:	2022 feet
End:	040° 31' 23.00" N 078° 43' 50.28" W
End elevation:	2022 feet
Projected Distance:	2.568 miles
	4.132 Kilometers
Projected Area:	10751460 sq. feet
	246.819 acres
	0.938 sq. kilometers

FEMA Floodway

Federal Emergency Management Agency

The channel of a watercourse and the adjacent land areas which are required to carry & discharge the 100 year frequency flood.

In areas where there are no FEMA maps or studies, it is assumed that the floodway extends 50' from the top of the bank of the stream.

WATERCOURSE

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



Water Obstruction

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

Encroachment

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

examples:

Excavations, fills and or structures in the stream, floodway or body of water (includes obstructions)



UTILITY LINE



Any pipe or pipeline for the transportation of a gaseous, liquid, liquefiable 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.



Authorizations

Waivers

General Permits (GPs)

- Projects qualify for a GP if they are designed and implemented in accordance with GP's conditions and criteria

PA State Programmatic General Permit (PASPGP-4)

Joint Permit (Standard and Small Project)

- PA Water Obstruction and Encroachment Permit
- USACOE Section 404 Permit
- *if the project does not require the discharge of dredge or fill material and/or the placement of structures in waters an ACOE Section 404 permit may not be required and only Chapter 105 requirements apply.*

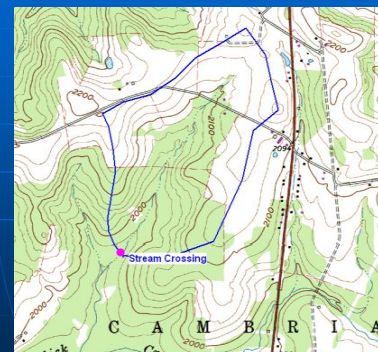
Waivers

Certain requirements may be waived. However, the activity or structure is still regulated.

These same activities or structures may require a permit, if the Department finds the activity or structure to have a significant effect upon safety or the protection of life, health, property or the environment.

105.12(a)(2) a water obstruction in a stream or floodway with a drainage area of 100 acres or less and no wetland impacts is waived from permit requirements and considered a waived activity (Waiver 2). Waiver 2 activities still may require federal authorization and are reported to the Army Corp of Engineers (ACOE) under the Pennsylvania State Programmatic General Permit (PASPGP-4).

Waivers



General Permit Registration

- The Department has up to 60 days to process a GP registration form.
- You must receive an acknowledgement of your submitted registration form from the DEP, prior to the start of construction.
- The form number is:
Form 3930-PM-WM0500
Current version: Rev. 6/2011

3930-PM-WM0500 Rev. 6/2011
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERSHED MANAGEMENT
WATER OBSTRUCTION AND ENCROACHMENT
GENERAL PERMIT REGISTRATION

DEF USE ONLY
 Acknowledged Date _____
 GP _____
 GP _____
 GP _____
 GPADP? ☐ YES ☐ NO

CHAPTER 105 GENERAL PERMITS
 PLEASE CHECK ALL THAT APPLY:
☐ GP-1 - Fish Habitat Enhancement Structures
☐ GP-2 - Small Docks & Boat Launching Ramps
 Please check one of the boxes below if siting:
☐ private recreational dock
☐ public access facility
☐ public service facility
☐ other private or commercial facility

☐ GP-3 - Bank Rehabilitation, Bank Protection & Gravel Bar Removal
☐ GP-4 - Intake and Outfall Structures
☐ GP-5 - Utility Line Stream Crossing
☐ GP-6 - Agricultural Crossings & Ramps
☐ GP-7 - Minor Road Crossings
☐ GP-8 - Temporary Road Crossings
☐ GP-9 - Agricultural Activities
☐ GP-10 - Private Residential Construction in Wetlands

☐ Activity Related to Oil and Gas Exploration and Production

SECTION A. APPLICANT INFORMATION
 Check One: ☐ New Permit ☐ Transfer of Existing Permit - complete Sections A, C & E and transfer form - 3930-PM-WM0018
 Applicant Name _____
 Contact Person - Last Name _____ First Name _____ MI _____ Telephone () _____
 Mailing Address _____ City _____ State _____ Zip + 4 _____
 Email Address _____

SECTION B. CONSULTANT (if different than above) ☐ N/A
 Consultant - Last Name _____ First Name _____ MI _____
 Consulting Firm _____
 Mailing Address _____ City _____ State _____ Zip + 4 _____
 Telephone () _____ FAX () _____ Email _____

SECTION C. PROJECT INFORMATION
 Project Name _____
 Site Location _____ City _____ State _____ Zip + 4 _____
 Municipality ☐ City ☐ Borough ☐ Township _____ County _____
 Latitude _____ Longitude _____
 How many acres of earth disturbance will occur as a result of this project?
☐ Less than one acre ☐ 1-5 acres ☐ 6 acres or more

Check all of the GP blocks that apply (Indicate it is for Oil and Gas)

Section A.
Applicant Information
Please list an email address

Section B.
Consultant Information

Section C.
Project Information
Total project area, not just the crossing area

Section C (continued).

Detailed Directions to the Site

Project Description

- If GP-5, please, indicate "gathering" or "transmission"; the total pipeline size and length
- If GP-7 and 8, describe in detail

Section D.

Compliance Review

- Is the applicant currently in violation of any permits issued by the Dept?

Please provide:

- Permits Numbers
- Nature of the Violation
- Status of the Violation

Section E.

Certification

Original signature of the permittee
Person responsible for the
installation, operation and
maintenance of the authorized
activity.

Section F.

Registration Checklist

- ✓ **Act 14 Notice (Municipality & County)**
Copies of the notification letters and proof of receipt ARE NOT required
- ✓ Cumulative Impact screening form
- ✓ Location map
- ✓ Sketch plan
- ✓ Cross section drawings (where req. GP 5,6,7 & 8)
- ✓ Color Photographs

Section F.

Registration Checklist

PNDI

- Completed PNDI Project Planning and Environmental Review Form
- Search Receipt - NO Known Impacts
 - Avoidance Measures
 - Potential Impacts & agency coordination

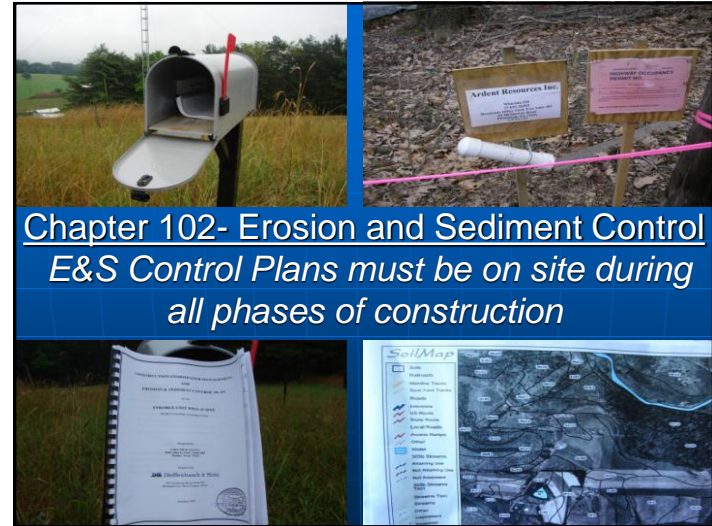
Section F.

Registration Checklist

- ✓ Bog Turtle Habitat Screening
 - ✓ Habitat screening form
 - ✓ "no effect" determination from the ACOE
 - ✓ Clearance from the US Fish and Wildlife Service
- ✓ Activities which permanently impact wetlands
 - ✓ Delineation with completed data sheets
 - ✓ Impacts > 0.05 acres – wetland replacement plan
 - ✓ If on-site is not feasible – fee schedule

Section F. Registration Checklist

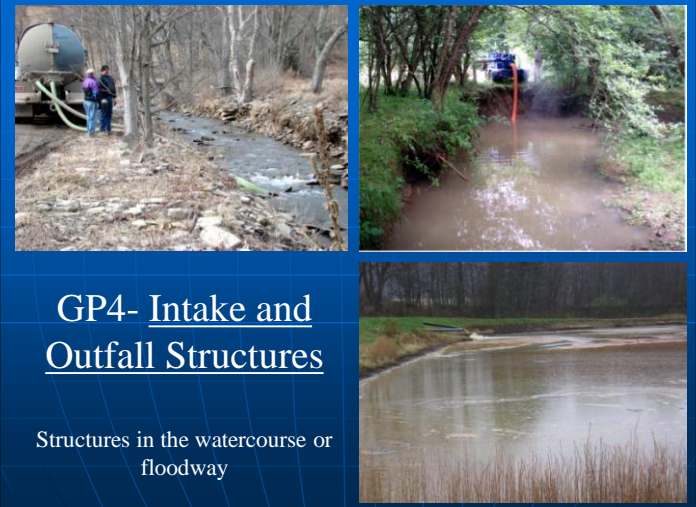
- Sketch Plan
- Project Cross Sections and Plan Views



Chapter 102- Erosion and Sediment Control
E&S Control Plans must be on site during all phases of construction



The General Permits commonly related to Oil and Gas Activities



GP4- Intake and Outfall Structures

Structures in the watercourse or floodway

GP4- Intake and Outfall Structures

Applicability for Use & Conditions

- Watershed drainage can be greater than 1 square mile
- Maximum diameter outfall culvert is 36"



GP4- Intake and Outfall Structures

NON-Applicability (Can not use for):

- Exceptional Value or High Quality Waters
- Areas of Historic or Archaeological Resources
- Wild or Scenic Rivers
- Natural Landmarks
- Wetlands
- Stocked trout streams from March 1st through June 15th
- Wild trout streams from Oct. 1st through Dec. 31st

GP5- Utility Line Stream Crossings



GP5- Utility Line Stream Crossings

Applicability for Use & Conditions

- Watershed drainage can be greater than 1 square mile
- Maximum line diameter is 36"
- 3' of cover (1' of cover if the line is in rock)
- High Quality Waters and below
- Installation of trench plugs (or other adequate measures) must be used in the trench to prevent sedimentation from entering the stream or from dewatering a wetland



GP5- Utility Line Stream Crossings Applicability for Use & Conditions



-Mats, pads or other similar devices must be used when crossing the wetland by construction equipment. Compaction of wetland soils is not allowed.

-The owner must also obtain a GP-8 (Temporary Road Crossing) for construction vehicles crossing at these sites.

GP5- Utility Line Stream Crossings NON-Applicability (Can not use for):

- Exceptional Value Waters
- Areas of Historic or Archaeological Resources
- Wild or Scenic Rivers
- Natural Landmarks
- Threatened or Endangered Species
- Wetlands greater than 10 acres in size
- Stocked trout streams from March 1st through June 15th
- Wild trout streams from Oct. 1st through Dec. 31st
- Reservoirs

GP-5 Areas of Concern



Running utility lines through existing culverts

PHOTO COURTESY:
DEP SW DOGO

GP-5 Areas of Concern HDD inadvertent returns

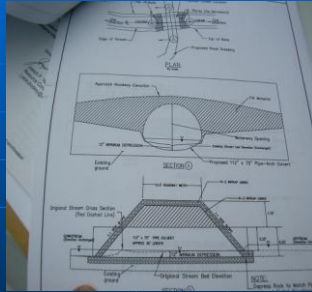


- ✓ Shallow depths
- ✓ Additives
- ✓ Contingency Plans



PHOTO COURTESY:
DEP Scott Sabocheck

GP7- Minor Road Crossing (permanent structure)



GP8- Temporary Crossing Structures in place for less than 12 months

**Among the many differences, one difference between the GP7 and GP8 is the amount of time the structure will be in place.*

GP7- Minor Road Crossing **Applicability for Use & Conditions**

- The construction must be completed within 3 years. If not, the structure must be removed and the watercourse must be restored to the former condition.
- Crossings are installed at right angles to the stream



GP7- Minor Road Crossing **Applicability for Use & Conditions**



The crossing must be kept open and clear of any obstruction or debris

GP7- Minor Road Crossing **Applicability for Use & Conditions**

- Culverts must be installed with the invert at least 6" below the natural stream bed and that gradient of the invert does not deviate from the natural stream bed



GP7- Minor Road Crossing Applicability for Use & Conditions



- The structure can not interfere with the migration of fish
- Culverts shall not increase the velocity or direct flow so as to result in the erosion of the stream bed or bank



GP7- Minor Road Crossing Applicability for Use & Conditions



- Culverts and bridges shall be sized accordingly and shall be of sufficient width and size so as not to narrow the existing stream channel
- Culverts must be aligned with the stream flow

GP7- Minor Road Crossing NON-Applicability (Can not use for):

- If the watershed drainage is greater than 1.0 square mile
- Exceptional Value Waters (EV)
- Areas of Historic or Archaeological Resources
- Wild or Scenic Rivers
- Natural Landmarks
- Threatened or Endangered Species
- Wetlands crossing greater than 0.1 acre in size and less than 100' in length
- Stocked trout streams
from March 1st through June 15th
- Wild trout streams
from Oct. 1st through Dec. 31st

GP8- Temporary Road Crossing Applicability for Use & Conditions

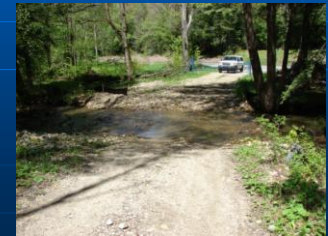
- The crossing may remain in place for one year.
- Crossings are done at right angles to the stream.
- Crossing of wetlands shall be avoided if an alternate location is possible.
- Crossing of wetlands must be located at the narrowest practicable point.
- Crossings must be restored to the original topography & stabilized
(except fords...the approaches must be adequately blocked & stabilized for restoration).

GP8- Temporary Road Crossing **NON-Applicability** (Can not use for):

- Wetland crossings greater than 200' in length
- Culverts less than 12" diameter
- Areas of Historic or Archaeological Resources
- Threatened or Endangered Species
- Natural Landmarks
- Stocked trout streams from March 1st through June 15th
- Wild trout streams from Oct. 1st through Dec. 31st

Fords (GP 7 or GP 8)

- These crossings must be stable
- Are prohibited on HQ and EV streams or in wild trout streams
- Discharge of sediment while vehicular crossing is not allowed

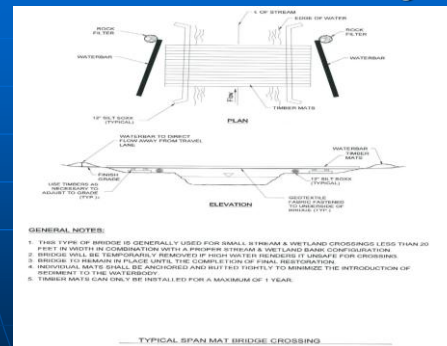


Fords



- Skidding equipment across a ford is prohibited.
- Fords are prohibited within 2,000' upstream from drinking water intakes or reservoirs for public water supplies
- If the stream bed does not have a rock bottom, then a layer of clean rock must be provided and can not obstruct stream flow
- The approaches must enter the stream at less than 10% grade within 50' of the stream

GP8- Areas Of Concern Timber mat crossing



Geotextile Fabric securely fastened on the underside of timber mats to collect loose debris or sediment and prevent discharge into the stream.

GP8- Areas Of Concern



- ✓ attach geotextile to the underside
- ✓ install temporary E&S controls at the crossing to prevent sediment from entering the waterway

Notification Requirements for GPs related to Oil and Gas Activities

- Registration form to the DEP OOGM
- Pa Historical & Museum Commission
(If resource was found during the activity)

Notification Requirements (cont'd) for GPs related to Oil and Gas Activities

You must notify the PA Fish & Boat Commission Regional Headquarters 10 days prior to construction



Registration Requirements for GPs related to Oil and Gas Activities

- Act 14 Notification
- Cumulative Impact Project Screening Form
- USGS Location Map
- Sketch Plan
- Cross Sections
- Color Photographs
- PNDI
- Bog Turtle Screening
(required for GP 5,7 & 8)
- Wetland Delineations *(NOT applicable for GP4)*
- Erosion & Sediment Control Plan
- Submerged Lands License Agreement (SLLA)
* required if applicable

Where do you register a GP?



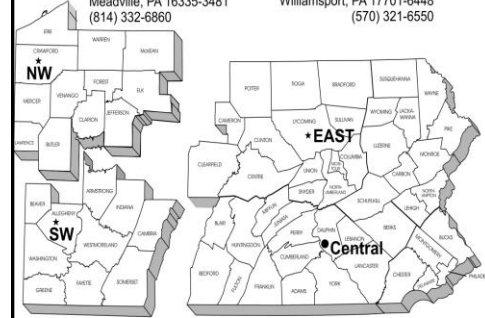
Oil and Gas Regions

★ Northwest Region

230 Chestnut Street
Meadville, PA 16335-3481
(814) 332-6860

★ Eastern Region

208 West Third Street
Williamsport, PA 17701-6448
(570) 321-6550



★ Southwest Region

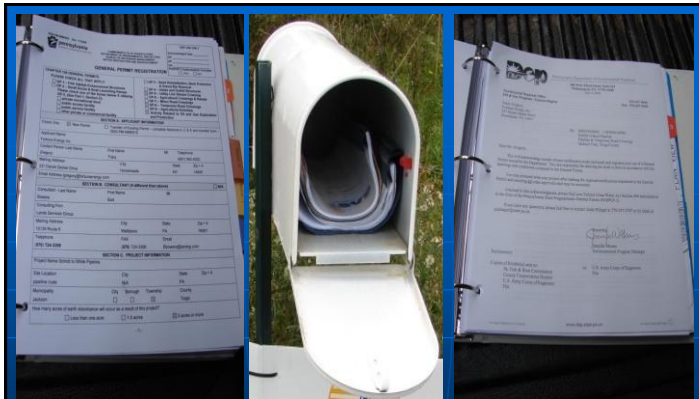
400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-4024

● Central Office

Bureau of Oil and Gas Management
PO Box 8765
Harrisburg, PA 17105-8765
(717) 772-2199

GPs related to
Oil and Gas
activities are
registered in
the
appropriate
OOGM District
Offices:

Meadville
Pittsburgh
Williamsport



An acknowledged copy of this General Permit and the
approved E&S Control Plan **MUST BE AVAILABLE AT**
THE PROJECT SITE during construction

(Ref. section F- Reg. Checklist of the General Permit Registration)

County Conservation Districts (CCDs) involvement concerning OOGM GPs



County Conservation Districts (CCDs) involvement concerning OOGM GPs

CCDs (with CH105 delegation) will review all GPs associated with transmission lines.

example.... An operator submits an ESCGP to a delegated CCD for a transmission line. Say the transmission line will cross a stream which requires a GP 5. The CCD will also issue the GP for this activity.

GPs not associated with transmission lines (collection, gathering lines etc and everything that we talked about today) will be covered by OOGM.

Federal Programmatic General Permit (PASPGP-4) “One Stop Shop”

- Pennsylvania State Programmatic General Permit-4 (4th version)
effective July 1, 2011
- Many projects in Commonwealth waters and wetlands also require federal authorization.
- For certain projects DEP can attach a federal SPGP permit to state permit
- When it applies, PASPGP-4 eliminates any need for redundant federal reviews

PASPGP-4 (Federal Authorization)

- Waiver of DEP permit
 - Under 100 acre of drainage area
 - Does not apply to wetlands located in the floodway
 - Must contact USACOE for Federal Authorization
- PASPGP-4
 - An automatic Federal Authorization when DEP General Permit is issued
 - If it is not attached, then an additional 45 day review by USACOE
 - If > 0.25 acre wetland impacts (accumulated)
 - If > 250 ft linear impacts of stream (accumulated)
- If > 1 acre of all water impacts (streams + wetlands)
USACOE will review and issue directly
- If < 1 acre water and not eligible DEP General Permit
 - Joint Permit
 - Full
 - Small Project (not any significant impacts (e.g. no wetlands, etc.))

PASPGP-4

Section 404(e) of the Clean Water Act (CWA) (33 United States Code [U.S.C.] Section [§] 1344) allows for the issuance of general permits on a statewide basis, which operate in conjunction with a State regulatory program that protects the aquatic environment in a manner equivalent to the Department of the Army regulatory program, provided that the activities permitted under each category of such general permits are similar in nature and result in no more than minimal individual or cumulative adverse effects on the aquatic environment. This Pennsylvania State Programmatic General Permit # 4 (PASPGP-4) is issued pursuant to Section 404(e) and is based on and consistent with the requirements of the CWA 404(b)(1) Guidelines.

<http://www.nap.usace.army.mil/cenap-op/regulatory/paspgp.html>

PASPGP3

All activities issued under PASPGP-3 that did not expire prior to June 30, 2011, are reauthorized by the PASPGP-4 without further notice to the applicable Corps District provided the proposed regulated activities comply with all terms, conditions, limits, and best management practices identified and required by the PASPGP-4; all special conditions attached to the original PASPGP-3 authorization; and all applicable PADEP Chapter 105 authorizations. The duration of these reauthorizations will be for: the term of the PASPGP-4 (June 30, 2016) for Category I or II activities, or the applicable PADEP Chapter 105 authorization, or five years from issuance of the PASPGP-3 Category III activities, whichever is less.

Joint Permit (Standard and Small Project)

- No work in wetlands
- No impacts to a Federal wilderness area or a National Historic Site
- No impacts on the habitat of rare, threatened or endangered species (PNDI-PNHP)
- No significant impacts to public water supplies, HQ or EV watersheds, scenic rivers or wild or stocked trout streams

JOINT PERMIT APPLICATION
 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 and
 U.S. ARMY CORPS OF ENGINEERS
 JOINT APPLICATION FOR
 PENNSYLVANIA WATER QUALITY CERTIFICATION AND NONDEGRADATION PERMIT AND
 U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT

Before completing this form, please read the step-by-step instructions and Section I of Application Completeness Checklist provided with this Joint Permit package.

AGENCY USE ONLY

Application ID# (assigned by DEP) _____ RECEIVED DATE _____ CHECK NO. _____
 Program Application No. _____ REQUIRED APP. FEE _____ AMOUNT \$ _____

SECTION A - APPLICATION TYPE: STANDARD ☐ SMALL PROJECTS ☐

SECTION B - APPLICANT IDENTIFIER
 Applicant Name: _____

SECTION C - PROJECT LOCATION DATA
 Name of stream and/or body of water and Chapter 83 designation: _____
 Corps District where project will occur: ☐ Pittsburgh (Ohio River Basin) ☐ Baltimore (Susquehanna River Basin) ☐ Philadelphia (Delaware River Basin)
 Name of the U.S.G.S. 7.5 Minute Quadrangle Map where project is located: _____
 Indicate location of project: Latitude _____ Longitude _____
 Project type, purpose and notes: _____

SECTION D - PROJECT STATUS
 HAS ANY PORTION OF PROPOSED PROJECT BEEN AUTHORIZED? ☐ yes ☐ no date authorized: _____
 If yes, attach description of those portions of the project that have been authorized and identify dates of authorization. Also attach a completed PASPGP-4 Cumulative Impact Project Screening Form.

SECTION E - COMPLIANCE REVIEW

Yes	No	Comments
<input type="checkbox"/>	<input type="checkbox"/>	Is the applicant (owner and/or operator) currently in violation of any permits issued by the Department? If yes, please provide: 1. Permit Number: _____ 2. Nature of the violation (if any): _____ 3. Status of violation (i.e., schedule for compliance, etc.): _____

3930-PM-
WM0036A

Rev. 6/2011

(3 page application)

Joint Permit Requirements

An application for a joint permit shall have the following information provided with it:

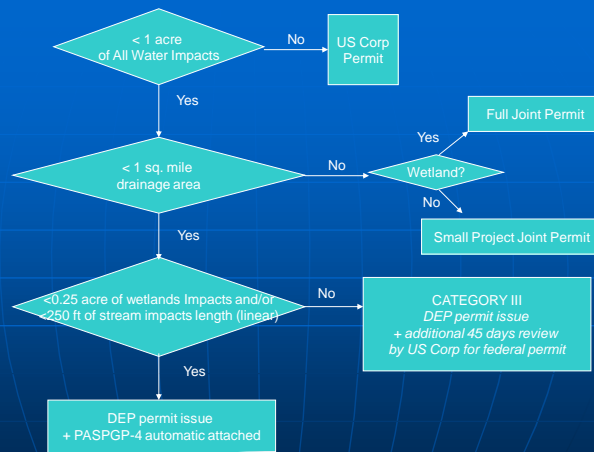
- A site plan
- A location map
- Project description
- Color photographs
- Stormwater Management Analysis
- Floodplain Management Analysis
- Risk Assessment

Joint Permit Requirements (cont'd)

- Alternatives analysis
- Mitigation plan
(avoid, reduce, minimize, compensate)
- Impacts analysis
- Other data required by Chapter 105
- Additional information requested by the Department
- Proof of an application for an Earth Disturbance Permit or an Erosion & Sedimentation Control Plan.

Joint Permit Registration

- Under Money Back Guarantee, the Department has up to 130 days to process a joint permit application
- You must obtain a written permit from DEP, prior to the start of construction
- Form 3930-PM-WM0036A
 - Current version: Rev. 6/2011
 - Do not use other versions



*not applicable for all cases.



Questions

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Office of Oil and Gas Management
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