WCD Engineers Workshop

Friday, March 19, 2021
Chapter 105
Discussion of General Permits
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Chapter 105

- Dam Safety and Waterway Management
- To provide for the comprehensive regulation and supervision of dams, reservoirs, water obstructions and encroachments in the Commonwealth in order to protect the health, safety, welfare and property of the people.
- Assure proper planning, design, construction, maintenance and monitoring of water obstructions and encroachments, in order to prevent unreasonable interference with water flow and to protect navigation.

Chapter 105

- Protect the natural resources, environmental rights and values secured in the PA Constitution and conserve and protect the water quality, natural regime and carrying capacity of watercourses.
- A watercourse is a channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.
- Chapter 105 General Permits authorize a limited set of predetermined activities in regulated waters of the Commonwealth.

Is this a regulated watercourse ?

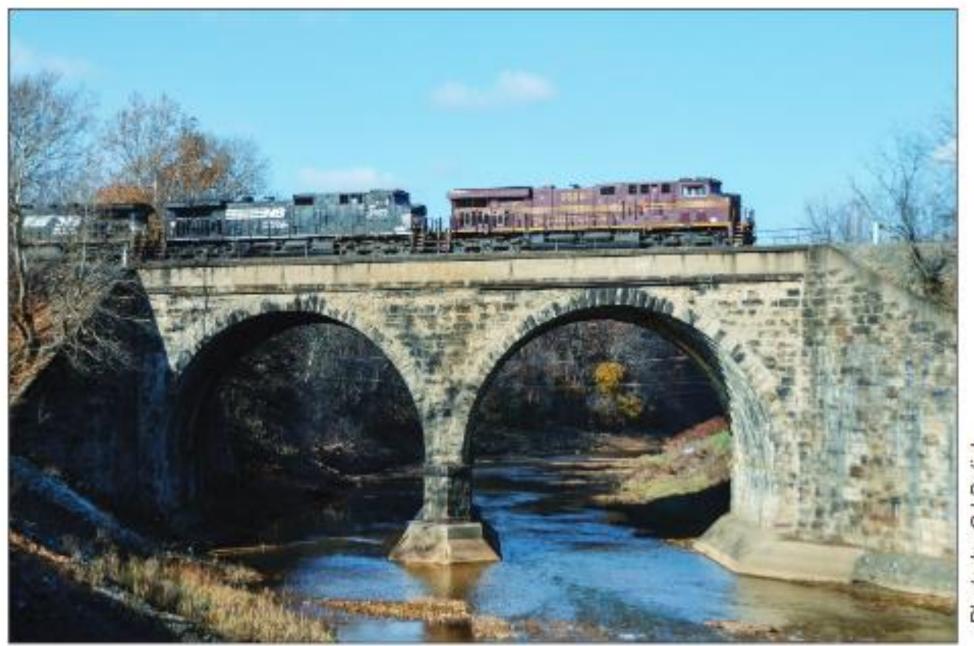
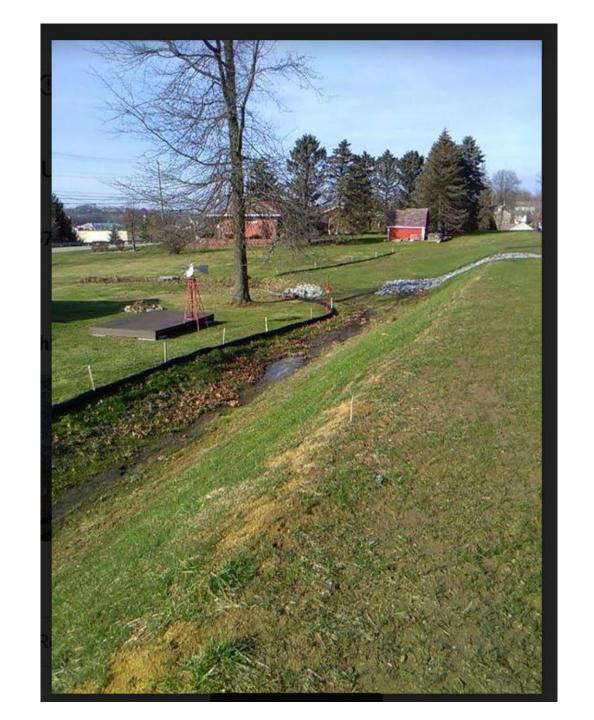
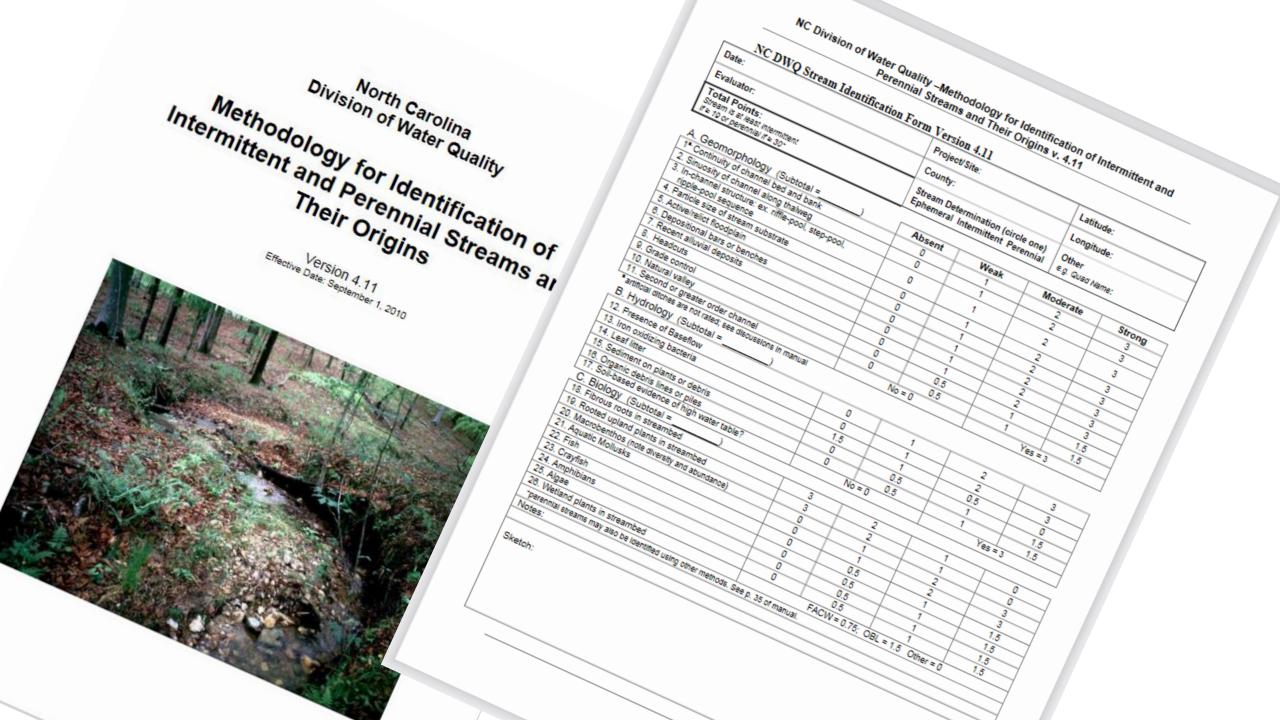


Photo by CJ Bolis

Is this a regulated watercourse?





Regulations and Waivers

- A Chapter 105 permit of some kind, is required especially if the drainage area tributary to the watercourse is > 100 acres
- Permit requirements may be waived in some cases, but waivers may not be "automatic".



Don't forget:

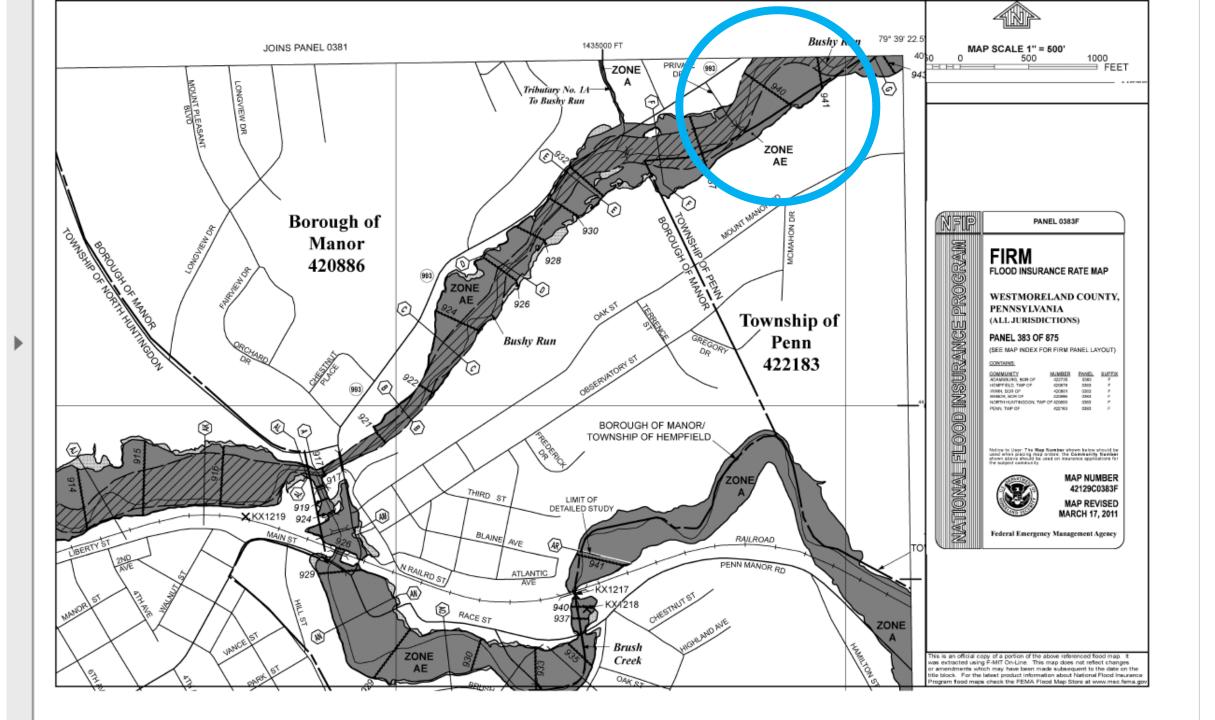
 A floodway can be considered Regulated Waters of the Commonwealth

A wetland can be considered Regulated Waters of the

Commonwealth

 A pond is also usually Regulated Waters of the Commonwealth





• Chapter 105 General Permits authorize a limited set of predetermined activities in regulated waters of the Commonwealth.



What about the Chapter 105 General Permits?

- DEP originates the General Permits
- Standard conditions
- Standard limitations
- Use of the General Permit may be authorized if you meet those conditions and limitations
- WCD reviews to make sure you meet the conditions
- WCD charges a fee to do this
- There is also a Clean Water Fund fee for each GP

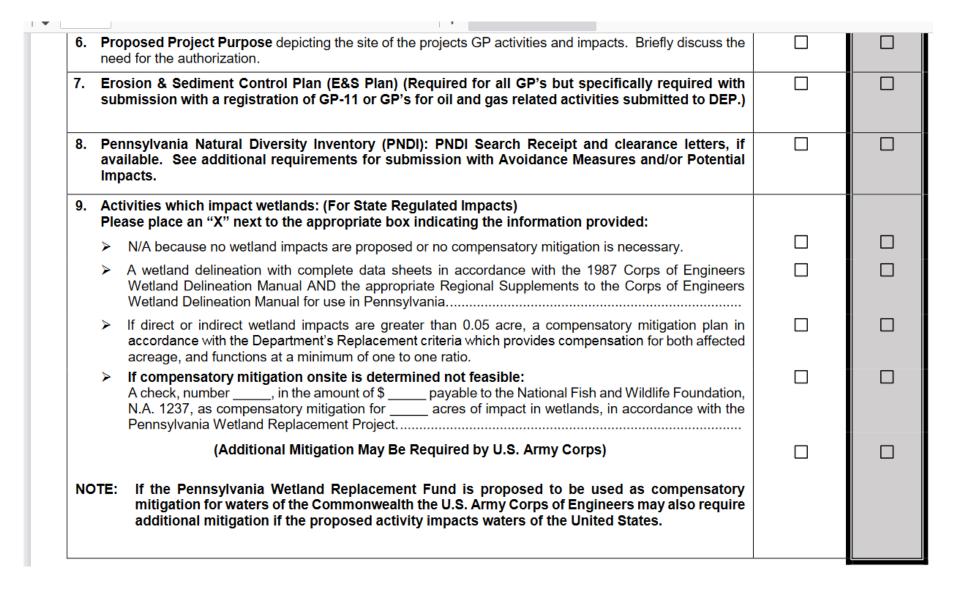
• All General Permits share the same application form...

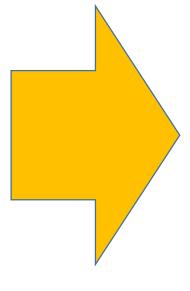
3150-PM-BWEW0500 Rev. 5/2 Form Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION		VEALTH OF PENNS FENVIRONMENTAI VAYS ENGINEERIN		TION TLANDS	
СНАР	TER 105 WATER OF GENERAL	STRUCTION PERMIT REG	IS AND	ENCROA	CHMENT
☐ FERC Natural Gas Activity	SECTION A.	APPLICANT INF	OPMATIC	M 1	
Has a Wate	r Quality Contists at	C) request been as Exploration, P nd provide the Fl		, Storage or et number.	\square No Transmission if the activity is
Client Information - Please sele	ct Client Type / Code from di	op down box unde	er the corre	ect entity show	mployer ID# (EIN)
Government	Non Course				m below. (or may be written in)
	Non-Gover	nment			Individual
Mailing Address					
		City		State	ZIP + 4
Contact Person – Last Name	First	MI	Suffix	Telephone	
mail Address				/	

All General Permits share the same application form...

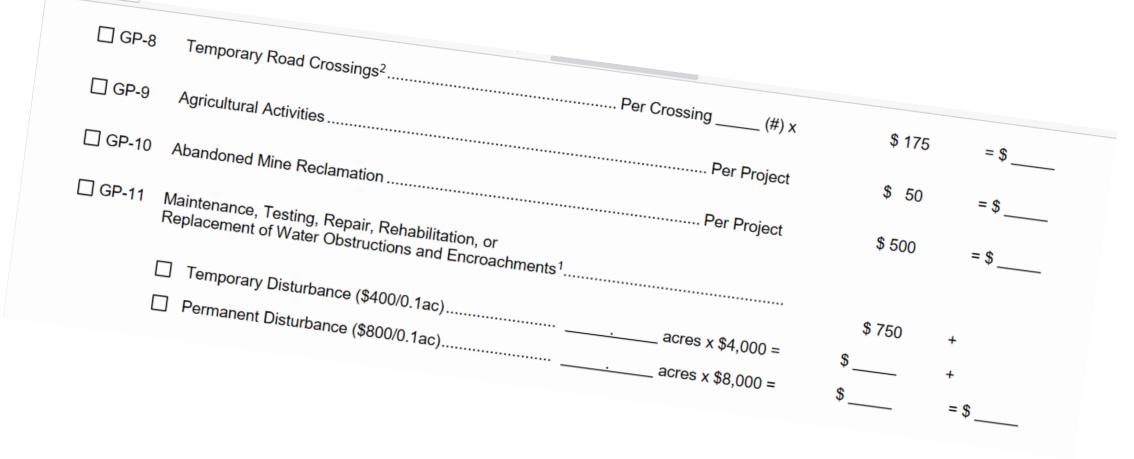
		Applicant Entry	DEP Use Only
2.	Location Map (USGS quad map) with project site marked:		
3.	Color Photographs with dates, locations, and descriptions: GP-3 GP-11 N/A		
4.	Project Description: (Example: Linear pipeline project using multiple GP-5's and GP-8's; One GP-7 for an access road to my property)		
5.	Site Specific and/or Standard Drawings are (required for all) project's GP activities.		
	For Activities that qualify for GP-7 or GP-11		
	Plans, specifications, and reports for bridges and culverts across a stream which are to be used by the general public such as an access to an industrial, commercial or residential development, etc., shall be prepared by a registered professional engineer and shall be affixed with their seal and certification which shall read as follows on the drawings:		
	If the project includes a bridge or culvert replacement or the proposed work will change the waterway opening, please complete and provide the <u>Bridge and/or Culvert Replacement Projects or Projects That Change the Waterway Opening (3150-PM-BWEW0552B)</u> worksheet. If the project consists of similar work (replacement or change in waterway opening) on more than one structure, provide the data requested for each structure included in this Registration package.		
	"I (name) do hereby certify pursuant to the penalties of 18 Pa. C.S.A. Sec. 4904 to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications, and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection."		
6.	Proposed Project Purpose depicting the site of the projects GP activities and impacts. Briefly discuss the		

All General Permits share the same application form...



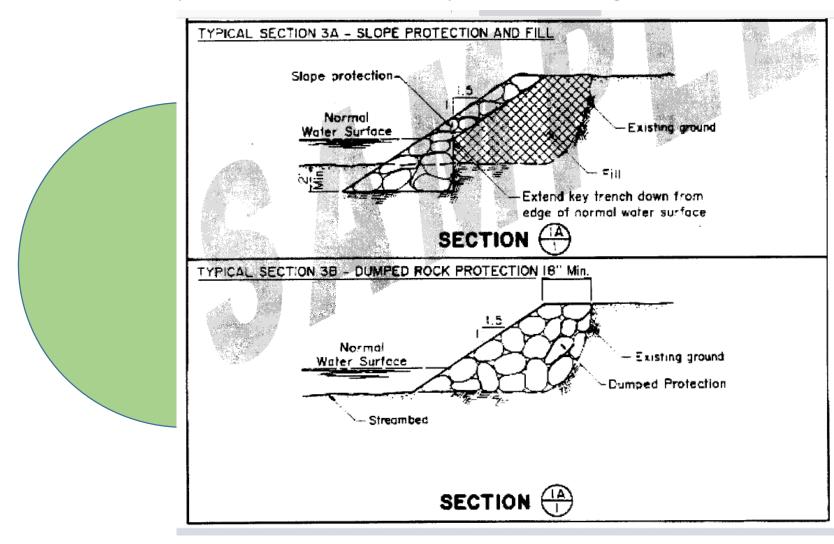


All General Permits share the same application form...



For a GP-11, the fee will be \$750 PLUS the disturbed acreage, one-tenth minimum, times the Temporary fee or the Permanent fee.

The General Permits have "sample drawings" which are more than just FYI... the applicant is expected to have a plan and project which matches the various points of the sample drawings.



Where the General Permit does not apply...



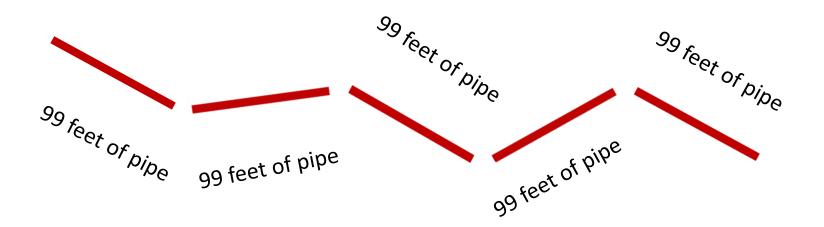
Consistent with 20 FM Gode \$100. 10 (relating to regulated activities - information and rees). SITES AND CONDITIONS WHERE THIS GENERAL PERMIT DOES NOT APPLY - This General

Permit does not apply and is not valid in the following situations. Where the General Permit is not apply and apply and approval of an individual permit by submitting an application to the applicable, you may request approval of an individual permit by submitting an application to the appropriate Permitting and Technical Services Section in the Regional Office (see Exhibit B).

- Historic, cultural or archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places or the National Register of Historical Places. This information is available from the Pennsylvania Historical and Museum Commission,
- 400 North Street, Second Floor, Harrisburg, PA 17120-0093, telephone (717) 783-8946.
- Sites identified in the latest published version of the National Registry of Natural Landmarks. Construction activities in stocked trout streams from March 1 through June 15, in wild trout streams from October 1 through December 31, and in Lake Erie tributaries from March 1 through June 15 and from September 1 through December 31, unless approval is obtained from the Pennsylvania Fish and Boat Commission's Division of Environmental Services (see Exhibit A). Stocked and wild trout stream locations are compiled by the Commission's Division of Fisheries Management (see Exhibit A). Wetlands.
- Projects located where there would be an impact on species of special concern listed under the Endangered Species Act of 1973, the Wild Resources Conservation Act, the Fish and Boat Code or the Game and Wildlife Code. Records regarding species of special concern are maintained in a computer database called the "Pennsylvania Natural Diversity Inventory" (PNDI). To verify that there will be no such impacts for a specific project, the Department requires submission of the attached PNDI Form and an initialed search receipt.
- Areas in or within 100 feet of a watercourse designated wild in the National or State Scenic

The General Permit is not...

• A way to avoid getting a Water Obstruction and Encroachment Permit (Joint Permit) by piecemeal applications.



• GP-1: Fish Habitat Enhancement Structures

Contact the Pennsylvania Fish and Boat Commission, Division of Environmental Services or Division of Property Services at address and telephone number shown on Exhibit A to select a suitable structure and obtain Pennsylvania Fish and Boat Commission approval on the General Permit Registration form.

GP-2: Small Docks and Boat Launching Ramps

Submerged Lands License Agreement (SLLA) may be needed on certain rivers.



Sewickley Creek Watershed Assoc.

• GP-3: Bank Rehabilitation, Bank Protection, and Gravel Bar Removal

some places where GP-3 does not apply

Projects involving channel relocation, channel realignment, or placement of fill to construct berms or levees.

Any project having a scope of work which is greater in length than 500 linear feet measured along a single continuous reach of stream channel.

Projects involving the installation of tires for bank protection. The removal of vegetated gravel bars.

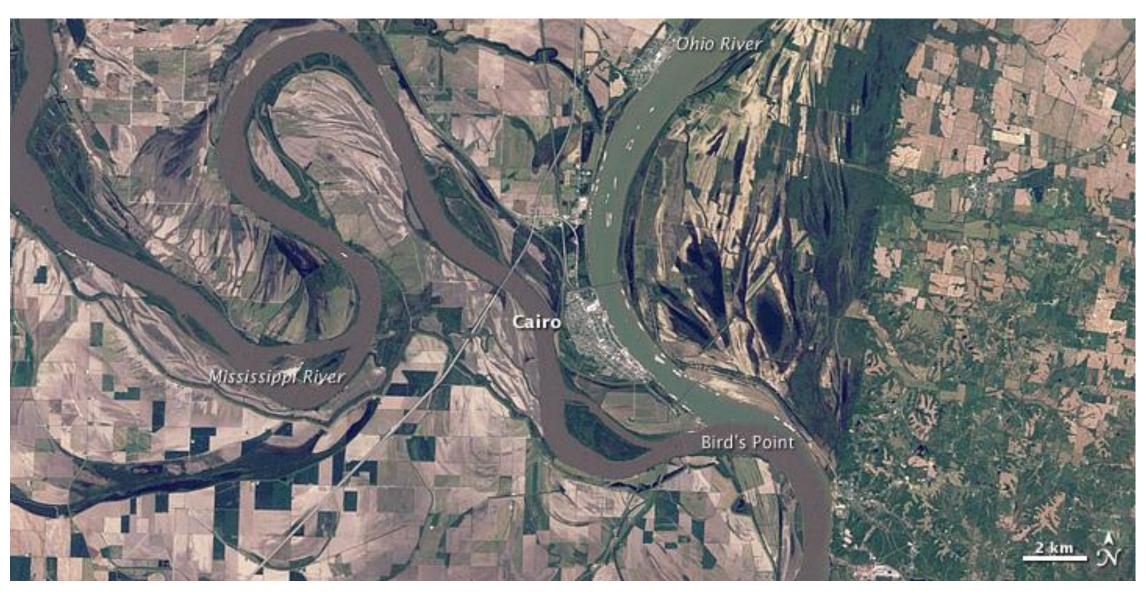


Oklahoma State Univ.

GP-3: Bank Rehabilitation, Bank Protection, and Gravel Bar Removal



GP-3 does NOT allow you to straighten the stream.



GP-3: Bank Rehabilitation, Bank Protection, and Gravel Bar Removal

 Construction of the bank rehabilitation, bank protection project or removal of a gravel bar should not constrict or increase the normal channel width.



Normal Channel Width...

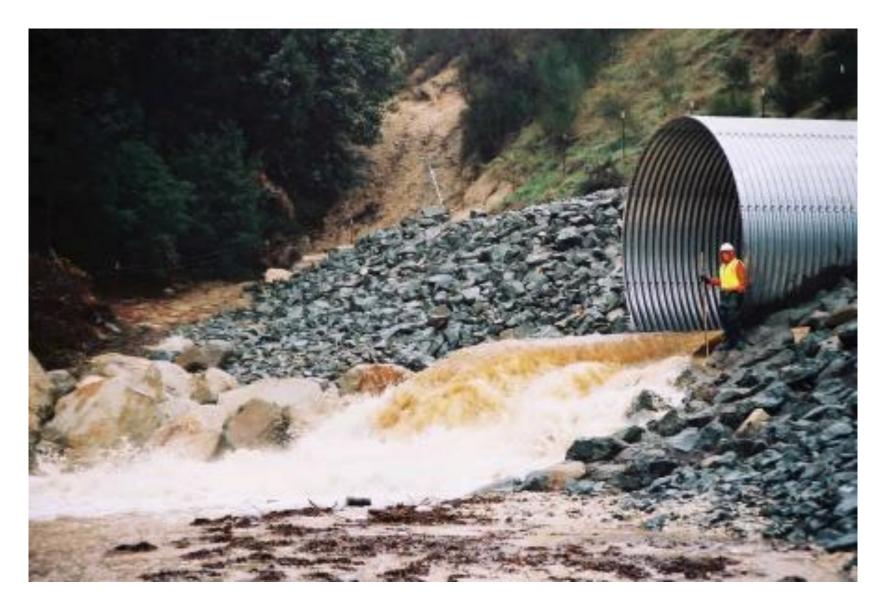


GP-3: Bank Rehabilitation, Bank Protection, and Gravel Bar Removal

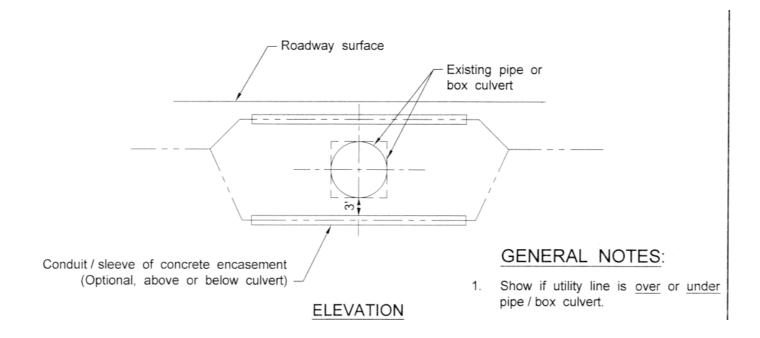
- Construction of the bank rehabilitation, bank protection project or removal of a gravel bar should not constrict or increase the normal channel width.
- The configuration of the shoreline shall remain substantially the same and the work shall align smoothly with, and not project further into the channel than adjacent upstream and downstream banks.
- The upstream and downstream ends of a bank rehabilitation or bank protection project shall be keyed into the stream bank to ensure stability.

• GP-4: Intake and Outfall Structures, only authorizes pipes < 36" dia.

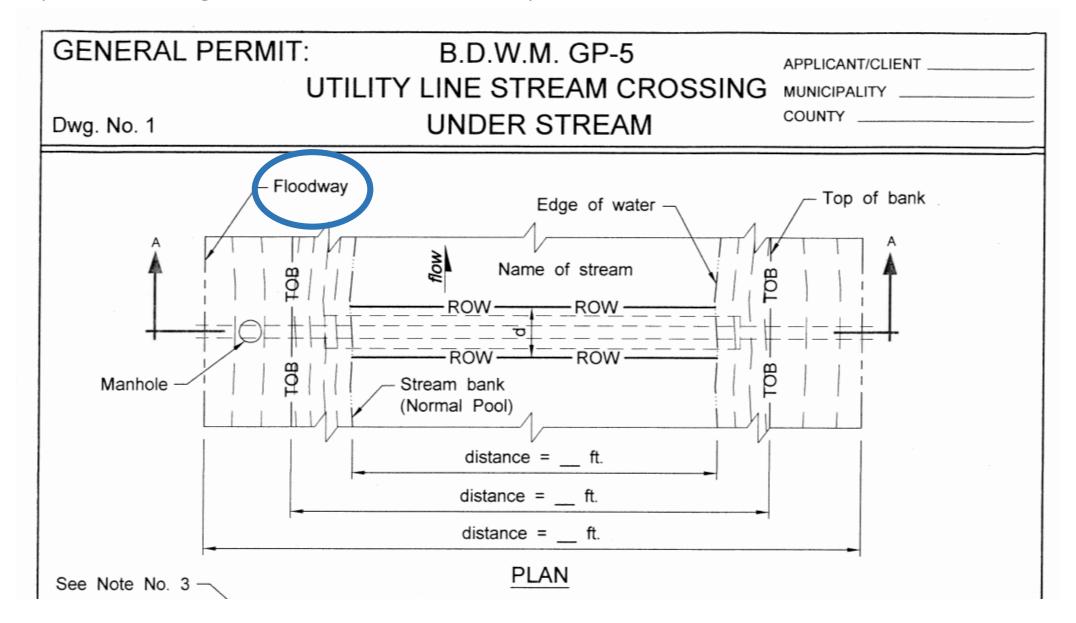
(GP-4 doesn't allow you to outlet into a wetland either.)



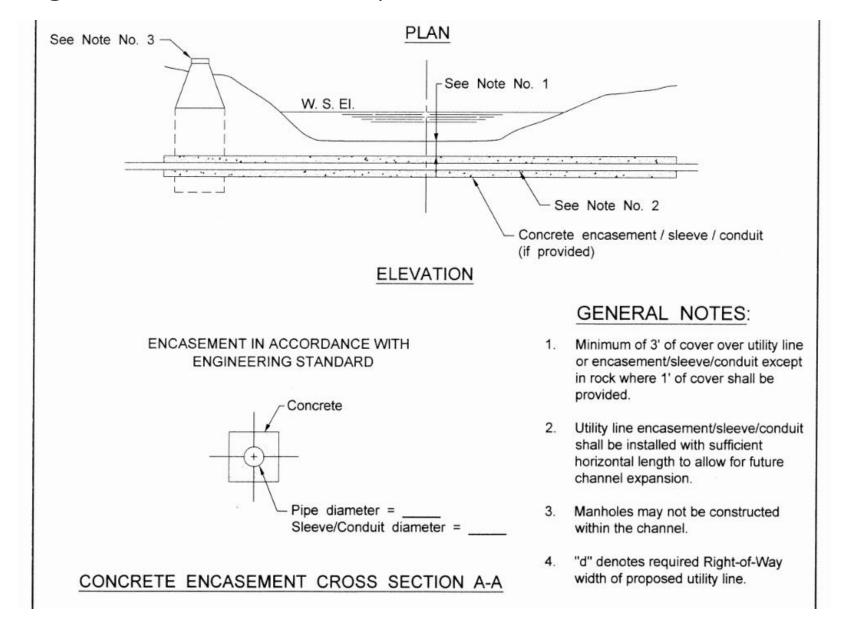
- GP-5, Utility Line Stream Crossings
 - Maximum utility line size is 36" diameter
 - Utility lines must be buried so they have 3 feet of cover, unless the streambed is in rock, in which case 1 foot is OK
 - Pipe needs to cross the stream as closely to a right angle as possible
 - GP-5 is not for a pipe running along the length of a stream



Sample drawings for GP-5 contain important information



Sample drawings for GP-5 contain important information

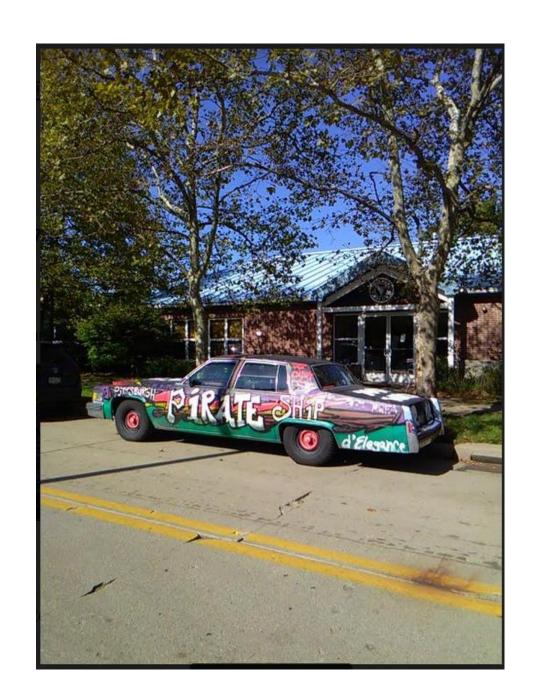


- GP-6: Agricultural Crossings and Ramps
- GP-9: Agricultural Activities



Washington County CD

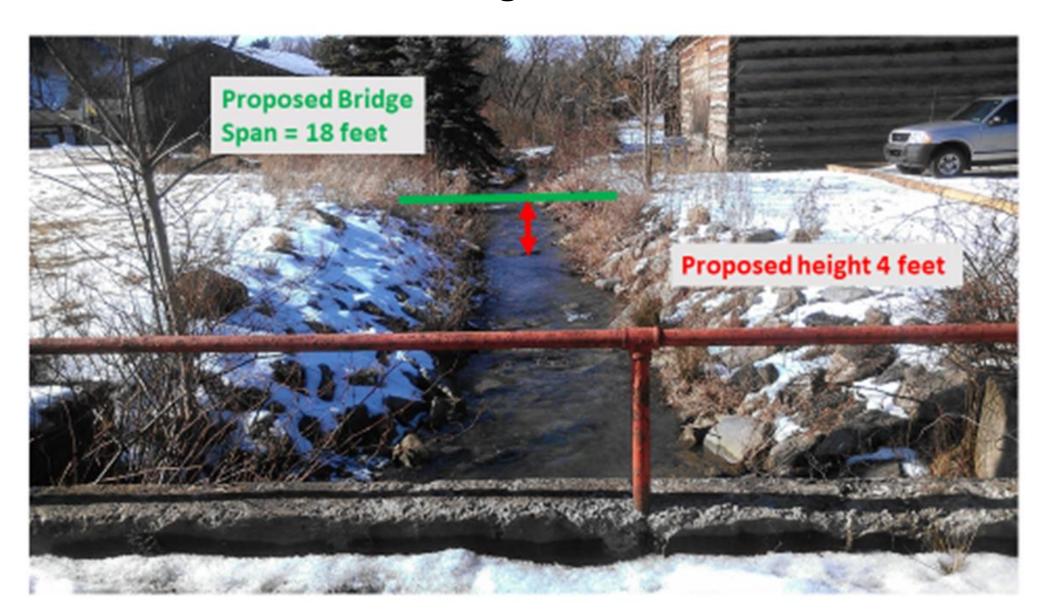
- GP-7: Minor Road Crossings
- A Minor Road Crossing is for a road
- A lawn is not a road
- A garden shed is not a road
- A road is a place where you drive your vehicle!



GP-7 Minor road crossings

- Drainage area Less Than One Square Mile
- Impacts less than 0.1 acre of wetland
- Length of stream enclosed is Less Than 100 Feet
- Depth of fill over top of culvert is the <u>manufacturer's recommended</u> minimum for the intended use and conditions

GP-7 can be used for a bridge too



GP-7 and Depth of Fill



Size the culvert according to expected flow



Inlet ends of culverts may be beveled to increase flow capacity



Design culverts & bridges to handle expected debris flow

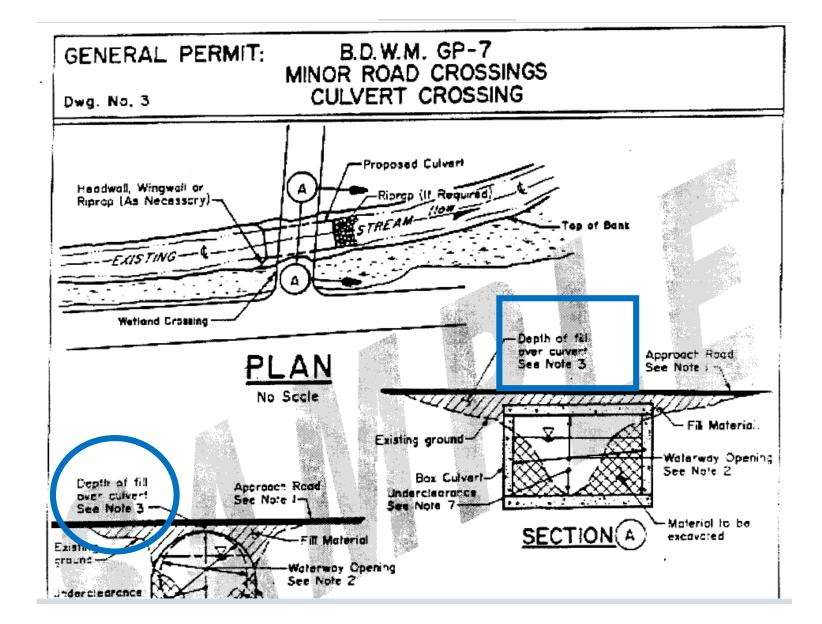


Photo by Doug Webster Westmoreland Heritage Trail volunteer Resident of Monroeville

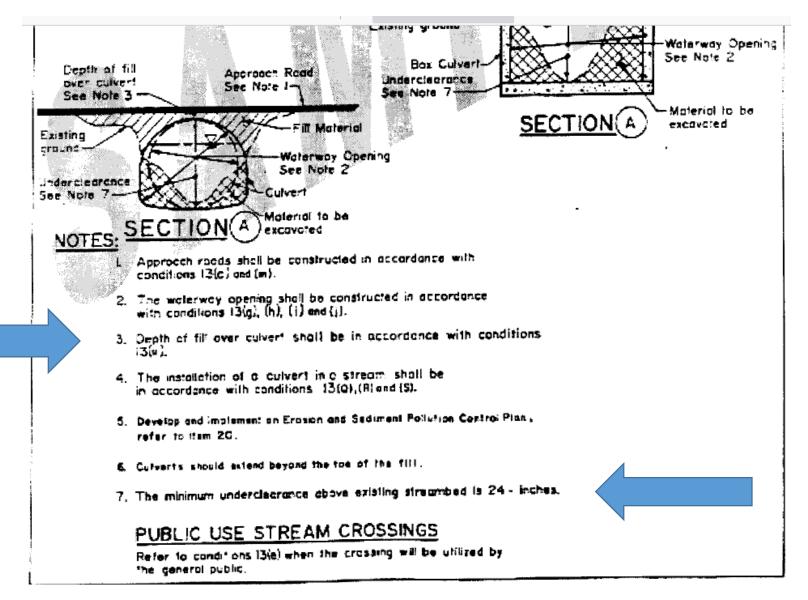
Culverts designed to allow for fish passage



GP-7 Minor Road Crossings



GP-7 Minor Road Crossings



General Permit 7 Minor Road Crossings—Conditions

- No fill except for the road
- Convey the bank-full flow
- Align with the flow
- Aquatic creature passage
- Headwalls, riprap, etc.



• GP-8: Temporary Road Crossings



• GP-11: Maintenance, Testing, Repair, Rehabilitation or Replacement of Water Obstructions and Encroachments

WCD

does

not

issue

GP-11

but

we

can

help

you

fill

one

out

for a

small

fee



GP-11, some conditions:

- For an existing encroachment or obstruction
- No new stream relocation, stream enclosure, or stream channel
- Only "incidental" realignments such as are necessary to support the structure
- No significant reduction in waterway opening
- Increase in culvert length or bridge width limited to 12 feet up and downstream

GP-11: Aerial view showing alignment of trail and proposed Monastery Run bridge.



Date: 2014/04/18 | Level: Neighborhood | Scale: 100%

GP-11: waterway opening

3160-PM-BWEW0562B 11/2012

Please complete and provide this chart as part of the General Permit Registration (3150-PM-BWEW0500) for GP-11 (3150-PM-BWEW0511)

BRIDGE AND/OR CULVERT REPLACEMENT PROJECTS OR PROJECTS THAT CHANGE THE WATERWAY OPENING*										
	Bridge/Culvert Existing					Bridge/Culvert Proposed				
Activity Number**	Waterway Opening (sq. ft.) (cross section/area)	Span (%.)	Underclearance (ft.)	Length (ft.) (upstream to downstream)	Material Type (RCP, GMP, etc.)	Waterway Opening (sq. ft.) (cross section/area)	Span (fl.)	Underclearance (ft.)	Length (ft.) (upstream to downstream)	Material Type (RCP, CMP, etc.)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

^{*}For multiple structures attach additional sheets that provide the same information requested in the chart.

^{**}The number used for a particular water obstruction from 3150-PM-BWEW0552A should match the number in 3150-PM-BWEW0552B for the same water obstruction.

are your friend.



Contact WCD for more information or assistance.

www.westmorelandconservation.org www.westmorelandstormwater.org