Are "Special Protection" Waters Receiving Special Protection in Pennsylvania?

#### Stephen P. Kunz, Senior Ecologist

Schmid & Company, Inc., *Consulting Ecologists* 1201 Cedar Grove Road Media, Pennsylvania 19063

> spkunz@aol.com 610-356-1416

> > SCHUYLKILL WATERSHED CONGRESS

> > > 13 March 2010

## THE BEST of THE BEST

# "Special Protection" Waters





## IMPORTANT POINT #1:

## WETLANDS

### can be Special Protection Waters

Special Protection Waters = **Streams + Wetlands** 

## IMPORTANT POINT #2:

"Exceptional Value Wetland" (Chapter 105)



## **Pennsylvania Constitution**

Article 1 (Declaration of Rights) Section 27

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

# PA LAWS

## THE CLEAN STREAMS LAW

Act of 1937

THE DAM SAFETY AND ENCROACHMENTS ACT

Nov. 26, 1978

### THE CLEAN STREAMS LAW

Act of 1937, P.L. 1987, No. 394

Preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation

Provide protection of water supply and water quality

Provide additional remedies for abating pollution of waters

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES HARRISBURG, PENNSYLVANIA

## DAM SAFETY and ENCROACHMENTS ACT

OFFICE OF RESOURCES MANAGEMENT BUREAU OF DAMS AND WATERWAY MANAGEMENT

## THE DAM SAFETY AND ENCROACHMENTS ACT 1978, Nov. 26, P.L. 1375, No. 325

Water Obstructions

**Encroachments** 

in streams, ponds, lakes, wetlands, etc.

# WETLANDS



#### Important Natural Resources

#### **Worthy of Protection**

## WETLAND FUNCTIONS & VALUES

- Flood Control
- Groundwater/aquifer recharge
- Maintain streamflow
- Sediment removal/stabilization
- Wildlife habitat/breeding (incl. endangered species)
- Nutrient and pollutant removal/transformation
- Carbon transformation
- Aesthetics
- Recreation







# REGULATIONS

# **PA REGULATIONS**

## **CHAPTER 93:**

WATER QUALITY STANDARDS

## **CHAPTER 105**:

DAM SAFETY AND WATERWAY MANAGEMENT

## **PA REGULATIONS**

# CHAPTER 105: DAM SAFETY AND WATERWAY MANAGEMENT

# Commonwealth of Pennsylvania Pennsylvania Code

#### **Title 25. Environmental Protection**

Department of Environmental Protection Chapter 105. Dam Safety and Waterway Management



Department of Environmental Protection Bureau of Water Quality Protection



in <u>Waters of the Commonwealth</u>

> Watercourses Streams Wetlands Floodways

# Chapter 105 **Permit Program General Permits Individual Permits**





## **PA REGULATIONS**

# CHAPTER 93: WATER QUALITY STANDARDS

## § 93.2



 (a) This chapter sets forth water quality standards for
 surface waters of this
 Commonwealth, including wetlands.

## **PROTECTED USES**

#### **Aquatic Life**

- Warm Water Fishes (WWF)
- Cold Water Fishes (CWF)
- Trout Stocking (TSF)
- Migratory Fishes (MF)

#### Water Supply

Potable Water Supply (PWS)

#### **Recreation**

• Water Contact Sports (WC)

#### **Fish Consumption**

Fishing (F)

### **Special Protection**

- Exceptional Value Waters (EV)
- High Quality Waters (HQ)

## § 93.3



## **SPECIAL PROTECTION** WATERS in PA

## **EV** Exceptional Value = 4%

**HQ** High Quality = 27%

# Special Protection Waters in Schuylkill River Basin

Mud Run	Schuylkill Co.	HQ-CWF	Hay Creek	Berks Co.	EV
Kaufman Run	Schuylkill Co.	HQ-CWF	Bea∨er Run	Berks Co.	HQ-CWF
Tar Run	Schuylkill Co.	HQ-CWF	Sixpenny Creek	Berks Co.	HQ-CWF
Wolf Creek	Schuylkill Co.	HQ-CWF	Pine Creek	Berks Co.	EV
Wolf Creek	Schuylkill Co.	HQ-CWF	Bieber Creek	Berks Co.	EV
Tumbling Run	Schuylkill Co.	HQ-CWF	Oysterville Creek	Berks Co.	EV
Bear Creek	Schuylkill Co.	HQ-CWF	Oyster∨ille Creek	Berks Co.	HQ-CWF
Still Creek	Schuylkill Co.	HQ-CWF	Trout Run	Berks Co.	EV
Owl Creek	Schuylkill Co.	HQ-CWF	Pigeon Creek	Chester Co.	HQ-TSF
Cold Run	Schuylkill Co.	HQ-CWF	Stony Run	Chester Co.	HQ-TSF
Beaver Creek	Schuylkill Co.	HQ-CWF	French Creek	Chester Co.	EV
Rattling Run	Schuylkill Co.	. EV	Bea∨er Run	Chester Co.	HQ-TSF
Pine Creek	Berks Co.	HQ-CWF	French Creek	Chester Co.	EV
Furnace Creek	Berks Co.	HQ-CWF	Pickering Creek	Chester Co.	HQ-TSF
Sacony Creek	Berks Co.	EV	Perkiomen Creek	Berks Co.	HQ-CWF
Moselem Creek	Berks Co.	HQ-CWF	W Br Perkiomen C	k Berks Co.	EV
Peters Creek	Berks Co.	EV	Unami Creek	Montgomery	HQ-TSF
Northkill Creek	Berks Co.	EV	Swamp Creek	Berks Co.	HQ-CWF
Wyomissing Creek	Berks Co.	HQ-CWF	Valley Creek	Mont-Chester	EV



# Qualifying as **High Quality** Or **Exceptional Value** Waters

#### § 93.4b

# Qualifying as a HIGH QUALITY Water

# A surface water that meets certain CHEMISTRY conditions or BIOLOGY conditions

#### (1) Chemistry:

(i) The water has long-term water quality, based on at least 1 year of data, which exceeds levels necessary to support the propagation of fish, shellfish and wildlife and recreation in and on the water by being better than the water quality criteria in § 93.7 at least 99% of the time for the following parameters:

§ 93.4b

dissolved oxygen	aluminum		
iron	dissolved nickel		
dissolved copper	dissolved cadmium		
temperature	рН		
dissolved arsenic	ammonia nitrogen		
dissolved lead	dissolved zinc		

(ii) The Department may consider additional chemical and toxicity information, which characterizes or indicates the quality of a water, in making its determination.

### (2) Biology:

### § 93.4b

One or more of the following shall exist:

#### (i) Biological assessment qualifier.

(A) The surface water supports a high quality aquatic community based upon information gathered using the *Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish*, Plafkin, et al. The surface water is compared to a reference stream or watershed, and an **integrated benthic macroinvertebrate score of at least 83%** shall be attained by the referenced stream or watershed.

(B) The surface water supports a high quality aquatic community based upon information gathered using other widely accepted and published peer-reviewed biological assessment procedures that the Department may approve to determine the condition of the aquatic community of a surface water.

(C) The Department may consider additional biological information which characterizes or indicates the quality of a water in making its determination.

(ii) <u>Class A wild trout stream qualifier</u>. The surface water has been designated a Class A wild trout stream by the Fish and Boat Commission following public notice and comment.



# *Qualifying as an EXCEPTIONAL VALUE Water*

A surface water that meets <u>either</u> of 2 criteria:

### **Qualifying as EV:**

### § 93.4b

# (1) The water qualifies as "HQ" <u>and</u> meets one or more of the following:

- (i) The water is located in a National Wildlife Refuge or a State Game propagation and protection area.
- (ii) The water is located in a designated State Park or State Forest natural area, National Natural Landmark, Federal or State Wild River, Federal Wilderness Area, or National Recreational Area.
- (iii) The water is an outstanding National, State, regional or local resource water.
- (iv) The water is a surface water of exceptional recreational significance.
- (v) The water achieves a benthic macroinvertebrate score of at least 92% using the *Rapid Bioassessment Protocols*.
- (vi) The water is designated as a "wilderness trout stream" by the Fish and Boat Commission .







# (2) The water is a "surface water of exceptional ecological significance"

#### Chapter 93 *Definition*:

# "Surface water of exceptional ecological significance"

A surface water which is important, unique or sensitive ecologically, but whose water quality as measured by traditional parameters (for example, chemical, physical or biological) may not be particularly high, or whose character cannot be adequately described by these parameters. **These waters include:** 

(i) Thermal springs.

(ii) Wetlands which are *exceptional value wetlands* under § 105.17(1)

# *"Exceptional Value wetland"* per Chapter 105



### "Surface Water of Exceptional Ecological Significance" per Chapter 93



## **EV WATER**

#### The Effects of Special Protection Designation



#### A Guide for Communities

Produced by the Pennsylvania Campaign for Clean Water

February 2007

Special Protection Designation
DOES <u>NOT</u> MEAN

x No Developmentx No Permits

## **INSTEAD:**

✓ More rigorous DEP review

✓ More stringent requirements

to protect water quality

# THAT'S THE THEORY

"Now for the rest of the story" (to quote Paul Harvey)



# **General Permits**



- Registered/Acknowledged
- No Technical Review
- Honor system
- No Public Notice in PA Bulletin
- Some <u>not</u> allowed in EV Waters
- Most <u>are</u> allowed in HQ Waters

## **Headwaters Exemption**

#### § 105.12. Waiver of permit requirements.

The requirements for a permit are waived for the following structures or activities:

A water obstruction in a stream or floodway with a drainage area of 100 acres or less.

§ 105.12(a)2

A dike, bridge, culvert, wall, wingwall, fill, pier, wharf, embankment, abutment, or other structure

(does <u>not</u> apply to wetlands, but DOES apply to EV and HQ waters)

## HEADWATER STREAMS ARE CRUCIAL


## WHERE RIVERS ARE BORN. The Scientific Imperative for Defending Small Streams and Wetlands

*"We know from local/regional studies that small, or headwater, streams make up at least 80 percent of the nation's stream network."* 





September 2003 24 pages



#### Protecting Headwaters: THE SCIENTIFIC BASIS FOR SAFEGUARDING STREAM AND RIVER ECOSYSTEMS

A Research Synthesis from the Stroud<sup>™</sup> Water Research Center



"Unfortunately, current regulations do not provide adequate protection for these important resources because they have not been updated to reflect the findings from current scientific research."

> 20 pages 2008



#### 100-acre watersheds in **white**

Area inside purple line = 18 square miles



Franklin Township Greene County PA

## SPECIAL TREATMENT (NOT SPECIAL PROTECTION) FOR FOSSIL FUEL EXTRACTION





#### Chapter 105 regulates "encroachments"

#### **Encroachment:**

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



Coal mine subsidence to UNT Dunkard Fork



#### Marcellus Shale Development

GAS WELL PERMITS

The Oil and Gas Act requires a well site to be

**100+ feet from any stream, spring, or body of water** (as identified on the most current 7<sup>1</sup>/<sub>2</sub> minute topographic map)

**100+ feet from any wetland** 

(greater than one acre in size)

The Department may <u>waive</u> distance requirements upon submission and approval of a waiver form

## **One Recent Experience**

## Housing Proposal - Reeves Property

- 66-acre property
- Schuylkill Township (Chester County)
- 60 90 single-family homes proposed
- Pickering Creek watershed ("HQ")
- Adjacent to Pickering Reservoir (Aqua PA)

#### Schuylkill Township 2004 CIR Aerial Photo









## Environmental Sensitivity of Site

- "HQ" Watershed (Pickering Creek) (Petition by GVA to upgrade to "EV")
- Bald eagles
- Red-bellied turtle habitat (PA threatened)
- Public drinking water supply







#### Bald Eagles at Pickering Reservoir







#### **Turtle Habitat**



#### Public Water Supply: Aqua PA





#### Reeves Property (orange outline)



Access Easement across Aqua Property (purple)



Proposed wetland crossing (pink dashed)



Proposed Crossing within Access Easement (purple outline)

## **General Permits Registered**

• Chapter 105 GP-5 (utilities)

• Chapter 105 GP-7 (road crossing)

0.056 acre wetland impact (about 2,000 SF)

November 2007 - DEP "acknowledged" receipt of the GP Registrations

## **Township Concerns**

- GP-5 not allowed in "important" wetlands (per §105.17)
- GP-5 not allowed in Reservoirs
- **GP-5** not allowed in wetlands larger than 10 acres
- GP-5 and GP-7 not allowed in EV Waters (per §93)
- **GPs** are <u>discretionary</u>: IP can be required if site is sensitive
- **GPs** receive virtually <u>no review</u>
- GPs provide federal (Corps) CWA approval

Re: General Permit Acknowledgment DEP General Permit File Nos. 051507335 and 071507329 Schuylkill Township Chester County Dear Mr. Boye:

This will acknowledge receipt of your General Permit Registration Nos. 5 and 7 (copies enclosed) and registers your use of a General Permit. You are responsible for assuring the work is done in accordance with the drawings and conditions contained in the General Permit. You may proceed with your project after making the required notifications stipulated in the General Permit and securing all other approvals that may be necessary.

Also enclosed is your Federal Clean Water Act Section 404 authorization in the form of the Pennsylvania State Programmatic General Permit (PASPGP-3).

Before performing any work, you are required to secure all other approvals that may be necessary under other federal, state, or local regulations and notify the Peansylvania Fish and Boat Commission in accordance with the General Permit. Also, you are required to develop an Erosion and Sediment Control Plan and notify your county conservation district prior to performing any earthmoving activities. No earthwork may start until you receive an "adequate" review letter from the Conservation District.

If you have any questions, please call Mr. Govind Daryani at 484-250-5165.

Marcella Emery

Water Management

## GP-5 and GP-7 Not allowed in EV Waters per Chapter 93

## *"Exceptional Value wetland"* per Chapter 105



#### "Surface Water of Exceptional Ecological Significance" per Chapter 93



### **EV WATER**

## Two types of wetlands per Pa Code Chapter 105.17:

## **EXCEPTIONAL VALUE WETLANDS**



(the very best wetlands with the highest values and most important functions)

## OTHER WETLANDS (all other wetlands)

## What qualifies as an Exceptional Value Wetland?

Chapter 105.17(1) Exceptional value wetlands This category of wetlands deserves special protection.

Exceptional value wetlands exhibit <u>one or more</u> of the following 5 characteristics:

## (i) Wetlands which serve as habitat for threatened or endangered species.



**Red-bellied turtle** 



Bog turtle

(ii) Wetlands that are hydrologically connected to or located within ½ mile of wetlands that are habitat for T/E species

(Not applicable at this site)

#### (iii) Wetlands located in or along the floodplain of:

- wild trout streams
- **EV-designated waters** (per Chapter 93)

or wetlands within the corridor of:

- National wild or scenic river
- PA wild or scenic river



(Not applicable at this site)

#### Wild Trout Streams in Chester County:

Chester	Little Valley Creek	2	Brown	TRIB UPSTREAM OF RT202 BRIDGE downstream to MOUTH	1.7 miles
Chester / Montgomery	Valley Creek	2	Brown	SR0029 downstream to MOUTH	6.8 miles

# (v) Wetlands located in: "natural areas" or "wild areas" within State Forests or State Parks Federal wilderness areas National Natural Landmarks







(Not applicable at this site)

(i) Wetlands which serve as habitat for threatened or endangered species.

(ii) Wetlands that are hydrologically connected to or located within ½ mile of wetlands identified in (i) and that maintain the habitat of the species within the wetland identified in (i).

(iii) Wetlands located in or along the floodplain of the reach of a wild trout stream or waters listed as EV under Chapter 93, and the floodplain of streams tributary thereto, or wetlands within the corridor of a watercourse or body of water designated as a National wild or scenic river or designated as a PA wild or scenic river.

#### (iv) Wetlands located along an existing public or private drinking water supply, including both surface and groundwater sources, that maintain the quality or quantity of the drinking water supply.

(v) Wetlands located in areas designated as "natural" or "wild" areas within State forest or park lands, wetlands located in Federal wilderness areas, or wetlands located in areas designated as National natural landmarks.



### **PENNSYLVANIA:**

14,500 <u>public</u> water supplies 3,000,000 residents use <u>private</u> wells

## 0 exceptional value wetlands per the definition:

Wetlands located along an existing public or private drinking water supply, including both surface and groundwater sources, that maintain the quality or quantity of the drinking water supply.

## **Reeves Project Wetlands are EV**

#### Are <u>along</u> a water supply

- wetlands are <u>on</u> Aqua PA property
- continuous waterline connection with Pickering Reservoir mainbody

Wetlands located along an existing public or private drinking water supply, including both surface and groundwater sources, that maintain the quality or quantity of the drinking water supply.





## Reeves Project Wetlands are EV

Maintain quality AND quantity of water supply

- not degraded
- not isolated
- this is what wetlands do!!

Wetlands located along an existing public or private drinking water supply, including both surface and groundwater sources, that maintain the quality or quantity of the drinking water supply.


#### Wetlands benefit water quality and quantity

# **GP** Timeline

- November 2007 GPs Registered
- February 2008 Township notified (should have appealed)
- March 2008 EAC: 2 letters to DEP-SERO
- August 2008 EAC: 3<sup>rd</sup> letter to DEP-SERO
- December 2008 DEP-SERO response

### PADEP Southeast Regional Office

To Stephen Kunz, EAC Vice-Chair

Undated Letter Received 12-23-2008

As a general matter, Department decisions, once made, are not reopened except in unusual or extraordinary circumstances. Given the needs of the Department and the regulated community for orderly functioning of the administrative process, and based upon a review of the facts in this matter, including the technical and legal bases for the Department's decisions to acknowledge the GPs registered by Pohlig, there are no unusual and extraordinary circumstances present here that merit a reopening of the Department's decision to acknowledge the registered GPs. Accordingly, the Department chooses not to reopen its November 21, 2007, decisions to acknowledge the GPs registered by Pohlig, at this time.

Thank you for your interest in this matter. If you have any questions, please contact Mr. Todd Schaible of our office at 484-250-5162.

Sincerely,

zahra Mucci

Zahra Nucci, P.E. Chief, Dams and Waterways Section Watershed Management

## John Hanger, DEP Secretary

### 1<sup>st</sup> Twp. letter to Hanger Feb. 5, 2009 Hanger response March 26, 2009:

"the wetlands crossing activity would not inhibit the reservoir from maintaining its quality and quantity as a drinking water supply. Accordingly, the wetlands are not considered exceptional value under the applicable criteria"

# 2<sup>nd</sup> Twp. letter to Hanger April 1, 2009 Hanger response May 27, 2009:

"our position remains that the wetlands are not considered to be 'exceptional value'..."



When was Determination Made?

### By Whom?

What is the **Basis** for the Determination?

# **RTKL Response**

### **RECORDS PROVIDED**

- 287 Pages of Files (mostly emails)
- 4 Drawings

RECORDS WITHHELD (no specifics) – Attorney-Client Privilege – Attorney Work Product Privilege

## **RECORDS PROVIDED**

- Confusion within DEP about EV Wetlands
- Inability to interpret 105 Regulations
- Inability to identify past examples
- General conclusion:

If the matter is unclear, we ask the water supplier. If the water supplier does not feel the wetland is critical to maintaining the quality and quantity of the water supply, it is not an exceptional value wetland.

# And when asked, Aqua PA said ....??

<u>Never</u> asked about wetlands at all

- Aqua and Developer had negotiated an "access easement"
- Easement does not mention wetlands

# AOUA AMERICA Strategies of a Water Profiteer



20 pages Sept. 2008

*Food & Water Watch* is a nonprofit consumer organization, based in Washington DC, that works to ensure clean water and safe food.



Aqua America

Strategies of a Water Profiteer

In his own words: focus on the bottom line

Try to remember that the shareholder is the boss. If you are doing something that isn't going to benefit the shareholders on a year-to-year basis, you shouldn't do it just to get bigger. You really have to come to the bottom line. – Nicholas DeBenedictis, CEO of Aqua America<sup>15</sup> Filed an **Appeal** to get records withheld



### **Office of Open Records**

### PADEP:

*"We cannot provide what we do not have."* 





### **Nagging Questions**



- 2. Why would DEP ignore, and actively block, a municipality's attempts to protect wetlands and a water supply?
- 3. Does DEP understand the connection between water supplies and exceptional value wetlands?
- 4. Does DEP understand the connection between exceptional value wetlands and EV Waters?





# WHAT CAN BE DONE?

- Recognize (& protect) exceptional value wetlands
  where associated with water supplies
- Understand regulatory connection
  EV wetlands (§ 105) → EV waters (§ 93)

#### Close the GP loopholes

- No GPs in EV or HQ waters
- Renew Public Notice of GPs in PA Bulletin
- No PADEP headwater waivers in EV or HQ waters
- No automatic Corps PASPGP-3 approval
- Encourage water companies to protect sources

# HEADWATERS

(especially the headwaters of EV and HQ streams)

# deserve

special protection

SPECIAL PROTECTION WATERS

# deserve

special protection



Are "Special Protection" Waters Receiving Special Protection in Pennsylvania?

#### Stephen P. Kunz, Senior Ecologist

Schmid & Company, Inc., *Consulting Ecologists* 1201 Cedar Grove Road Media, Pennsylvania 19063

> spkunz@aol.com 610-356-1416

> > SCHUYLKILL WATERSHED CONGRESS

> > > 13 March 2010