

Water Allocation



Permit Program

WATER RIGHTS ACT OF 1939

- No implementing regulations – only guidance document 392-2130-001 issued 1992 and updated draft guidance issued September 7, 2012.
- Applicability
 - Public Water Supply Agency – “shall mean any corporation or any municipal or quasi-municipal corporation, district, or authority, now existing or hereafter incorporated under the laws of the Commonwealth of Pennsylvania and vested with the power, authority, right, or franchise to supply water to the public in all or part of any municipal or political subdivision of the Commonwealth of Pennsylvania.”

WATER RIGHTS ACT OF 1939

- Applicability
 - Facilities not considered a Public Water Supply Agency: unincorporated water associations, mobile home parks, BVRB (bottled, vended, retail, bulk) systems, partnerships, apartment complexes, food service establishments or other individuals serving food to the public.
 - Surface Water – Rivers, Streams, Natural Lakes, Ponds or other surface waters. Attorney General's opinion of August 5, 1940 determined that springs that form streams are included under definition of surface water.
 - A Public Water Supply Agency interconnecting with another Public Water Supply Agency using surface water must first obtain a subsidiary water allocation permit. *Commonwealth v. Phila. Suburban Water Co.*

WATER RIGHTS ACT OF 1939

- Section 7 Considerations in Reviewing Allocation Application:
 - Proposed new source of supply will not conflict with the water rights held by any another public water supply agency
 - Water and water rights proposed are reasonably necessary for the present purposes and future needs of the applicant
 - Taking of proposed water will not interfere with navigation
 - Taking of proposed water will not interfere with public safety
 - Taking of proposed water will not cause substantial injury to the Commonwealth

TECHNICAL REVIEW

- 1. Evaluate service area population and historical water use**
- 2. Determine safe yield of the source**
- 3. Compare supply vs demand**
- 4. Analyze instream flow requirements (i.e., passby or conservation release)**
- 5. Other findings required by the Act (navigation, safety, conflicts)**
- 6. Select appropriate special conditions**
- 7. Address any comments received (CO, SRBC, PFBC, PUC, etc.). Memorandum's of understanding with other agencies provide review and commenting provisions.**

1. POPULATION & WATER USE

(Reasonable Need Provision)

- **Project future service area populations and future water use using DEP's yield analysis tool (YAT)**
- **25 year population projections using population projection methodology for Act 220 state water plan (table of projected populations for all PA municipalities for 2020, 2030, and 2040)**
- **Actual 2000/2010 U.S. Census data**
- **Annual water supply reports/Act 220 reports**
- **Projected future connections**
- **Unaccounted-for water loss – 20% standard**

2. SAFE YIELD OF SOURCE

(Substantial Injury Provision)

- **Will water supply be available during drought?**

Q_{7-10} is an indicator of low flow conditions anticipated during a drought. Q_{7-10} is a statistical estimate of the lowest 7-consecutive day average flow that will occur once in 10 years.

- **Reservoir yield analysis –**

Use Water Resources (WR) Bulletin No. 7 and 7A – long duration low flow and draft rate method; run yield analysis tool (YAT); 50 year drought frequency used.

- **River and stream yield analysis –**

Select a reference USGS stream gage, with similar basin characteristics (elevation, slope, annual precipitation, % forested, % urban, % glaciated, % carbonate bedrock, drainage area); use PA StreamStats (PASS) to find intake drainage area; do drainage area (DA) ratio to find Q_{7-10} at intake; run YAT to estimate Q_{7-10} and average daily flow (ADF).

- **Spring yield analysis –**

Use historical flow data, WR Bulletin No. 10 - Springs of PA, or use similar analysis as run of stream.

3. SUPPLY VS DEMAND

(Reasonable Need and Substantial Injury Provisions)

Allocation amount is based on:

- **Population projections and water use data (resulting in projected water use)**
- **Safe Yield**
- **25-year planning period**
- **All existing sources (surface, groundwater and interconnections)**
- **Instream flow requirements (passby or conservation release requirements)**

4. INSTREAM FLOW REQUIREMENTS

(Substantial injury evaluation)

- **PA-MD Instream Flow Study (PIFS) Based on SRBC Publication 191 – Instream Flow Studies PA and MD, May 1998 :**
 - A. Only use for reproducing trout streams with drainage areas (DA) < 100 square miles.**
 - B. Passby (stream) or conservation release (reservoir) based on acceptable habitat loss as determined by modeling – Pennsylvania Instream Flow Model (PIFM) supported by the Nature Conservancy’s Indicators of Hydrologic Alteration Software tool (converts daily flow values into monthly median flow values).**
 - C. Limited to the following physiographic regions: ridge & valley limestone, ridge & valley freestone, unglaciated plateau, and piedmont upland freestone.**

INSTREAM FLOW REQ'S CONT'D

- **PIFS guidelines based on stream classification:**
 - A. EV $\leq 5\%$ annual habitat loss**
 - B. HQ $\leq 5\%$ annual habitat loss, except $\leq 7.5\%$ is allowed if PWS complies with conservation guidelines, no feasible source available, etc.**
 - C. CWF $\leq 10\%$ for PFBC Class B wild trout streams**
 - D. CWF $\leq 15\%$ for PFBC Class C or D wild trout streams**
 - E. Passby never $< Q_{7-10}$**

MORE INSTREAM FLOW REQ'S...

- **1992 PFBC position paper (DA >100 sq mi):**
 - 1. 25% ADF = EV, HQ or reproducing trout streams**
 - 2. 20% ADF = all streams not included in #1 above**
 - 3. 15% ADF = AMD streams with some aquatic life**
 - 4. Q_{7-10} = severely degraded streams or limestone streams where $Q_{7-10} > 25\%$ ADF**
 - 5. De Minimus conditions - passby may not be required, if withdrawal is $\leq 10\%$ of Q_{7-10}**

Average Daily Flow (ADF) = mean annual flow

5. FINDINGS REQUIRED BY ACT

- **Proposed allocation will not conflict with water rights held by another PWS.**
- **Will not interfere with navigation.**
- **Will not interfere with public safety.**

5. FINDINGS REQUIRED BY ARTICLE 1, SECTION 27 OF THE PA CONSTITUTION, AS ADOPTED IN 1971

- **“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. Pa’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 of the people.”**

ADDITIONAL LEGAL REQ'S

Historically, DEP measured its actions concerning issuance of a permit by the three point test announced in Payne et al. v. Kassab et al. This test is:

- Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources?
- Does the record demonstrate a reasonable effort to reduce environmental incursion to a minimum?
- Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived therefrom that to proceed further would be an abuse of discretion?

6. SELECTION OF SPECIAL CONDITIONS (STANDARD)

- **Permit duration limit of 25 years max**
- **Withdrawal or purchased water measuring device and reporting requirement**
- **Drought contingency plan**
- **Permit compliance report**
- **Operations and drought contingency plan**
- **Prohibition on supplying water to other systems without a permit**
- **Renewal requirement, 18-months prior to expiration**
- **Water conservation program**
- **Chapter 110 registration and reporting**

6. SELECTION OF SPECIAL CONDITIONS (AS NEEDED)

- **Passby or conservation release measuring device and reporting requirement (most)**
- **Reduction of unaccounted-for water loss, only if currently greater than 20% (most)**
- **Adequate finished water storage development**
- **Reservoir storage measuring devices and reporting**
- **Revocation of order of confirmation or WA permit, if issuing new prior to expiration date**
- **Additional source development**
- **PWS permit requirement**
- **Interconnection agreement**
- **NPDES permit requirement**

7. Address Comments Received (CO, SRBC, PFBC, PUC, etc.)

- Agencies are normally given 30 days to comment, but this timeframe is sometimes extended upon request.**
- Other agencies receive the application at the same time as the Department. Proof of submission to other agencies is required during the Administrative Completeness phase of application review.**
- The Department must review other agencies comments and duly consider comments. Some comments require discussion to come to agreement. We want to avoid unnecessary permit appeals. SRBC has the option to require a separate approval if the allocation permit does not meet their requirements.**

MODIFICATION ORDER IF:

- **Need to add new permit condition, in case of conflicts**
- **Service area is expanding – analysis required to determine impact**
- **To recognize issuance of subsidiary permit to another water system purchasing water from permitted system**
- **CANNOT be used to increase water rights – new application is required**

QUESTIONS OR COMMENTS?

