Pennsylvania's Water Use Workplan for
USGS Water Use Data And Research Financial Assistance

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Presented to an advisory committee of the DRBC.
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Authorities

Chapter 110 Regulations (from the Water Resources Planning Act (P.L. 1776, No. 220) – Water Use Registration, Reporting, Record Keeping

Oil and Gas, 58 PA.C.S. Act of 2012 – Includes development of Water Management Plans for wells in unconventional formations.

Water Rights Act of 1939 (P.L. 842, No. 365) – Issuance of Water Allocation Permits to public water supply agencies to take water from surface water sources.

Responsibilities

Sector	Registration Threshold	Reporting Values/Frequency
Public Water Supplier withdrawals	No floor -	• Groundwater: Monthly values, annual • Surface: Daily values, monthly + monthly/annual
Hydropower Facilities	No floor -	Monthly values, annual
Unconventional Gas Operators	WMP uses Chapter 110 process No floor -	Monthly values, quarterly (Outside of Susq. River Basin)
Other Sectors • Mineral, Industrial • Agriculture • Commercial • Electric	>10,000 gpd avg over 30-day	Monthly values, annual

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Reporting

Sub facilities: The Sub Facility report for each source contains information about the water source such as the monthly amounts withdrawn or purchased or sold (in case of PWS systems)

Primary Facilities: contains overall system information. For Public Water Suppliers, includes the water use data for all the different connections (Domestic, Industrial, Institutional …….and also captures the water loss).

The primary facility report for a Non PWS system (Industrial, Mineral, Agricultural, Electric……….) identifies how much of the amount of water reported in each of the source's sub facility report was Discharged.

Total Daily Withdrawals

Water Withdrawals and Use for Major Basins in Pennsylvania, 2014*

*supplemented with previous year reports

Values are shown as daily averaged annually in million gallons per day and may not add to totals because of independent rounding

Use Sector	Delaware	Susquehanna	Ohio	Potomac	Great Lakes	Total
Commercial & Institutional	2.6	3.6	0.3	1.1	0.0	8
Industrial	212.2	89.5	384.5	0.2	2.8	689
Irrigation	4.2	3.6	2.8	0.4	0.4	11
Livestock	21.3	59.8	17.0	3.0	2.6	104
Mining	34.2	31.9	6.9	3.5	0.1	77
Oil and Gas	0.0	11.0	7.7	0.0	0.0	19
Public Water Supply	587.4	320.2	445.8	20.7	30.9	1,405
Thermoelectric Power	330.0	2,905.8	359.8	0.1	0.0	3,596
TOTAL	1,192	3,425	1,225	29	37	5,908

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USGS Baseline Standards

Pennsylvania's major water use categories by USGS Baseline Goals

Category	Tier Levels		
	Tier 1	Tier 2	Tier 3
Public Supply	🟩🟩🟩🟩	🟩🟩🟩🟩	🟩🟩🟩⬛
Industrial	🟩🟩🟩🟩	🟩🟩🟩⬛	🟩🟩🟩🟩
Irrigation- Crop	⬛⬛⬛⬛	🟩🟩⬛⬛	⬛🟩🟩🟩
Thermoelectric	🟩🟩🟩🟩	⬛⬛🟩🟩	⧅⧅⧅⧅
Self-Supplied Domestic	🟩🟩🟩🟩	⬛⬛🟩🟩	⧅⧅⧅⧅
Irrigation – Golf Courses	🟩🟩🟩🟩	🟩🟩⬛⬛	⧅⧅⧅⧅
Livestock	🟩🟩🟩🟩	🟩🟩🟩🟩	⬛⬛⬛
Mining	🟩🟩🟩🟩	🟩🟩⬛⬛	🟩🟩⬛⬛
Aquaculture	🟩🟩🟩🟩	🟩🟩⬛⬛	⧅⧅⧅⧅
Commercial	🟩🟩🟩🟩	🟩🟩🟩🟩	⧅⧅⧅⧅
Hydroelectric Power	🟩🟩🟩🟩	⧅⧅⧅⧅	⧅⧅⧅⧅
Wastewater Treatment	🟩🟩⬛⬛	⧅⧅⧅⧅	⧅⧅⧅⧅

Objective 1

Improve water use data delivery

- online data download tool has been non-operational since last October; requests for data are handled by individual requests
- develop new and improved online reports similar to existing DEP report viewers; [DEP's Water Reporting Page](#)
- create multiple report viewers to handle various water use reports submitted to DEP
- user will see queried data on screen before exporting to various format types; to include xml, csv, and Excel

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Example of Report Viewer

eDMR Viewer using SQLServer for Report Services (SSRS)

List of Water Use Report Viewers

1. Water Source Registration
2. Water Quantity Report by Source (Sub Facility Reports)
3. Water Use Report by Water Supplier (PWS Primary Facility Reports)
4. Water Use Report by Facility (Non PWS Primary Facility Reports)
5. Water Allocation Daily Withdrawal Report
6. Water Management Plan Daily Water Use Report (tentative)
7. Water Use Summary Report Statewide
8. Water Use Summary Report by County
9. Water Use Summary Report by Watershed

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Objective 2

Improve quality assurance of reported data

- by linking the Sub Facility and Primary Facility report forms so the total water from all sources is used to complete the primary facility
- help eliminate a commonly found discrepancy between the reported incoming and outgoing water
- for example, a PWS reports 100,000 gpd from all sources (withdraws + purchases); they can not exceed the 100,000 gpd on their Primary Facility report; the difference will be the system's water loss.

Objective 3

Improve quality control checks

- Enhanced quality controls checks will be incorporated in the the online application; such as
    - automatic check of previous submitted value
    - check min and max daily use with average daily
    - prepopulate method of discharge or return from previously accepted report

Objective 4

Improve data collection

- allow users an option for spreadsheet uploads
- convert remaining paper forms to online submission forms

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