

May Lunch & Learn

Impacts to Our Drinking Water Source & Beaver Run Reservoir



Do you live in Westmoreland County or source your drinking water from the Beaver Run Reservoir? If so, join us for a discussion on the impacts to our drinking water and the Beaver Run Reservoir.

Tuesday, May 27 at 12 PM

Stream on Youtube & Facebook!

protectpt.info/lunch2

Protect PT



THREE RIVERS
WATERKEEPER®

Who We Are



Sara Majorsky
Community
Organizer
Protect PT



Jim Cirilano
Community
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Projects
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Three Rivers Waterkeeper

AGENDA

01

IMPACT OF DROUGHTS

Impact of droughts on Beaver Run and watershed.

02

WATER CONSERVATION ORDERS

Residents told to conserve water but not private corporations.

03

MAWC WATER SALES

Compounding issue of fracking water sales.

04

STRATEGIES FOR WATER MANAGEMENT

How MAWC can reform their policies to save water for the next drought

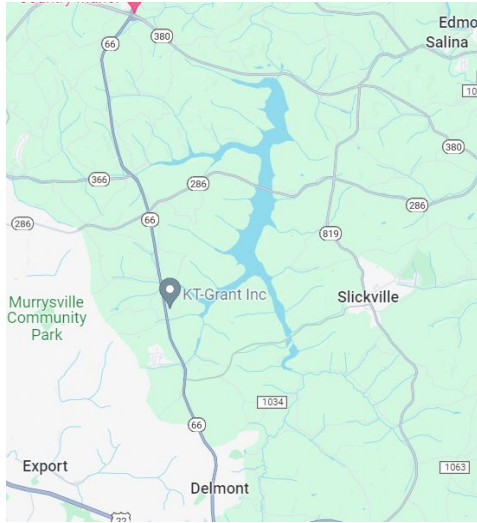
01

IMPACT OF DROUGHTS

PREPARING FOR THE NEXT ONE

MAP OF BRR & MAWC SERVICE AREA

Beaver Run
Reservoir



Did you know?

*Beaver Run Reservoir is ~1300 acres
and lies within a 43-square-mile
drainage area and serves
approximately 130,000 people
throughout northern Westmoreland
County and small portions of
neighboring Armstrong and Indiana
counties*

DROUGHT OVERVIEW

What is a weather drought?

Drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. (NOAA)

How does drought impact reservoirs?

When there's not enough precipitation in a watershed area to fill collection points (like the Beaver Run Reservoir), the water levels in that area can deplete to extremely low levels.

2023 Drought: Westmoreland County was not currently in drought at time of order

Other Considerations:

- Portion of data came from rain gauges, groundwater and surface water measurements that are outside the 22,000 acres in the Beaver Run watershed which are upstream of the Beaver Run Dam.
- Need for precipitation upstream of reservoir for the 7 streams that feed it.

DROUGHT IMPACTS

Drought's consequences are far-reaching, impacting water quality, public health, the economy, the natural environment, public infrastructure, and more.

(National Integrated Drought Information System)

- Because drought often emerges slowly, the damage it causes is gradual. People, particularly those who live in urban areas, may not even be aware that they're living in a drought-impacted area. Droughts do not typically damage a person's private property in the same way that other natural disasters—such as tornadoes or hurricanes—do, which can reduce public concern about responding to drought.

(NIDIS)

November 2023

Voluntary Conservation

Voluntary Conservation started 11.16.23

January 29 2024

Order Lifted

MAWC lifts mandatory conservation order, shifts to voluntary conservation.

November 2024

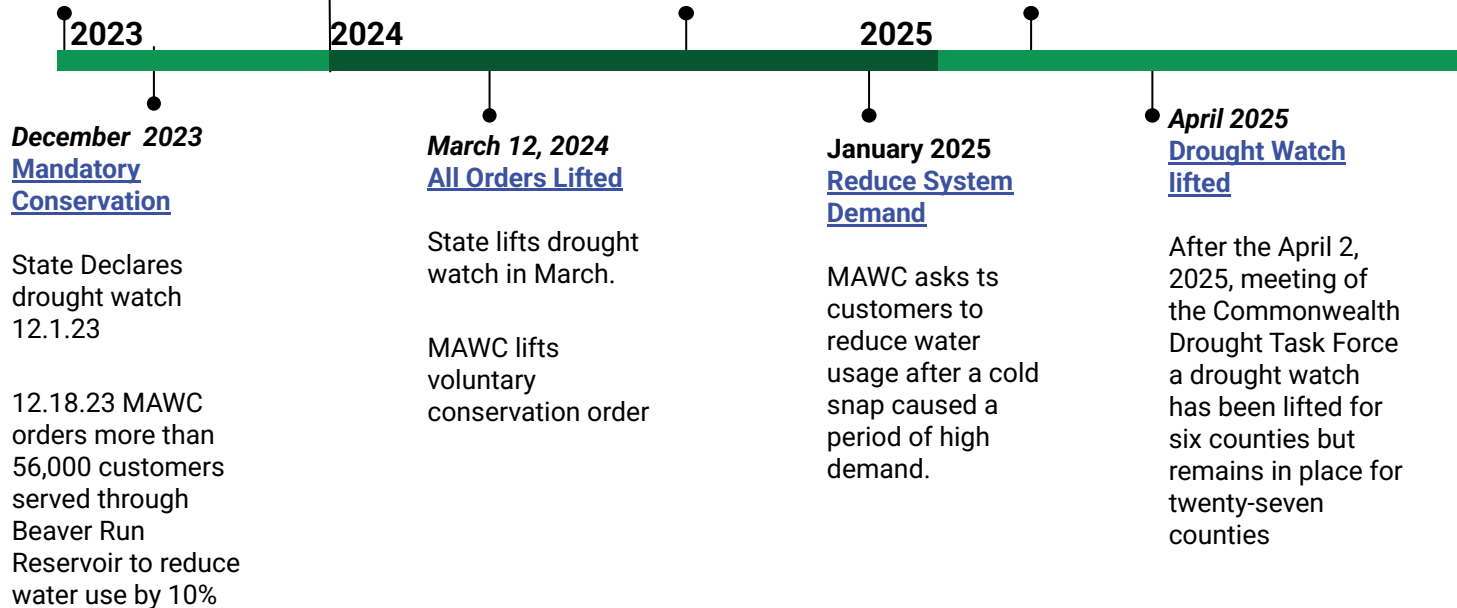
Voluntary Conservation

11.1.24 State issues drought watch.
11.13.24 MAWC calls for voluntary conservation order, amid state drought conditions

March 2025

Continued Conservation

MAWC Voluntary Conservation Order still in place.



DEPLETION OF WATER SUPPLIES

Challenges in predicting declines in water supply

- Increasing occurrence and severity of drought
- Land cover and land use changes
- Increased water demand

Water systems that are experiencing withdrawals without recharge are at even greater risks of water supply decline

Precipitation cannot meet the increasing demands of oil and gas.

Fracking and Water Use in Pennsylvania

The annual average volume of fresh water consumed in well development in Pennsylvania has increased at a rate of 1 million gallons of water per well each year.

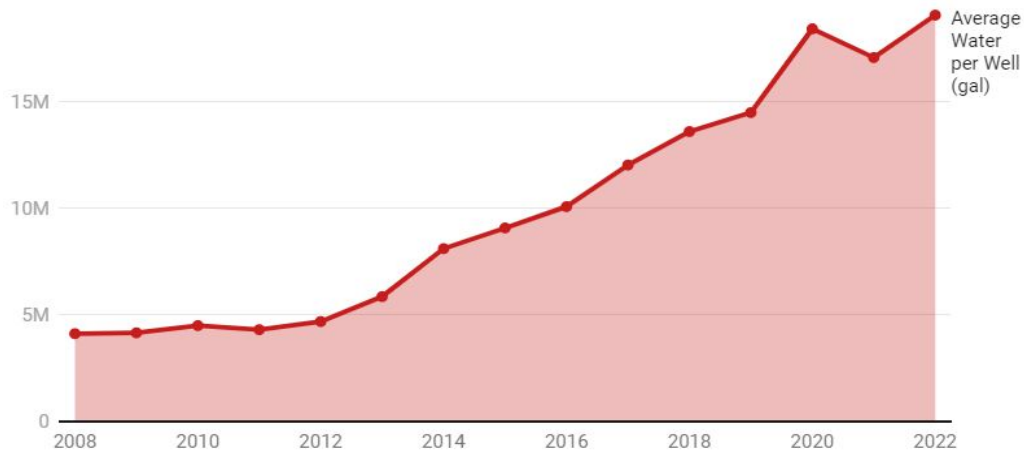


Chart: FracTracker Alliance • Source: [FracFocus](#) • Created with [Datawrapper](#)

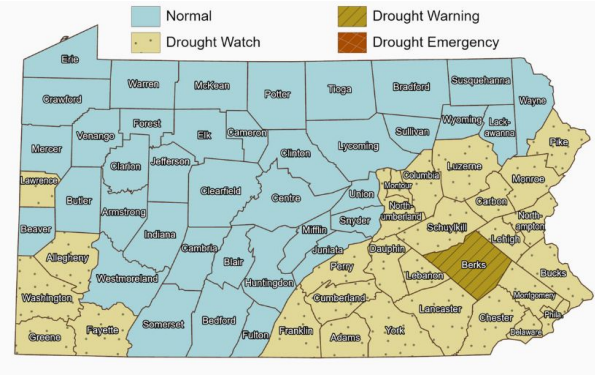
Water use for fracking in Pennsylvania **increased** from **2-7 million gallons of water per well** in 2008 to **14-39 million gallons of water per well** in 2019.



WATER CONSERVATION ORDERS

DROUGHT DECLARATION

- The PA DEP determines drought declarations for counties
 - The levels include drought watch, drought warning, drought emergency
- Based on indicators including
 - stream flow,
 - groundwater level
 - precipitation
 - soil moisture
- The DEP also factors in information received from public water suppliers.



APRIL 2025 DROUGHT MAP

DROUGHT CONTINGENCY PLAN

- Water suppliers are required to develop and maintain a valid **drought contingency** plan with the Commonwealth that outlines watch, warning, and emergency stages.
- At the Beaver Run Reservoir, voluntary conservation measures kick in when water levels reach the trigger point of 1,034 feet above sea level.
- Mandatory conservation measures are triggered at 1,033 feet above sea level.

2024 - 2025: OLD DROUGHT ENDS; NEW DROUGHT BEGINS

WESTMORELAND

Authority calls for voluntary conservation in response to state drought conditions



RICH CHOLODOFFSKY | Wednesday, Nov. 13, 2024 12:40 p.m.

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KRISTINA SCRAPPE | TRIBLIVE

The Beaver Run Reservoir is seen Tuesday, March 12, 2024, after the Municipal Authority of Westmoreland County lifted a voluntary conservation order.

Municipal Authority of Westmoreland County water customers are being asked to conserve water as drought conditions take hold throughout Pennsylvania.

Conservation efforts are voluntary, and municipal authority officials said there is no immediate expectation mandatory cutbacks of water use will be required.

EMAIL NEWSLETTERS

TribLIVE's Daily and Weekly [email newsletters](#) deliver the news you want and information you need, right to your inbox.

Westmoreland water authority calls for reduction of use as winter freeze, thaw impacts supply



RICH CHOLODOFFSKY | Monday, Jan. 27, 2025 3:22 p.m.

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KRISTINA SCRAPPE | TRIBLIVE

Crews from the Municipal Authority of Westmoreland County work at the site of a water line break on Stanton Street at the border of Greensburg and Southwest Greensburg on Jan. 14.

Nearly 122,000 Municipal Authority of Westmoreland County customers have been urged to conserve water as work crews identify leaks and service line breaks that resulted from last week's cold snap.

Officials said the frigid winter temperatures and this weekend's thaw stressed the water system's infrastructure and supply. Water line breaks along with customer efforts to prevent freezing pipes by running water in their homes and businesses has led to lower levels at local tanks and in reservoirs.

"We are asking everyone to reduce their water use so we can get the system back to normal. We've been struggling the last week to keep the tanks full," said authority manager Michael Kukura.

EMAIL NEWSLETTERS

TribLIVE's Daily and Weekly [email newsletters](#) deliver the news you want and information you need, right to your inbox.



Municipal Authority of Westmoreland County

Jan 29 ·

[Timeline photos](#)

UPDATE: Conservation measures no longer necessary as of 3/12/24

Beaver Run up 6 feet, MAWC switches to voluntary conservation;

Recent precipitation increased water stored in the reservoir 1.6 billion gallons

03

MAWC WATER SALES

How much of our water went to fracking corporations in 2023 and 2024?

WATER TAKEN BY THE OIL AND GAS INDUSTRY IN 2023

328,728,378 gallons

Out of 2 reservoirs

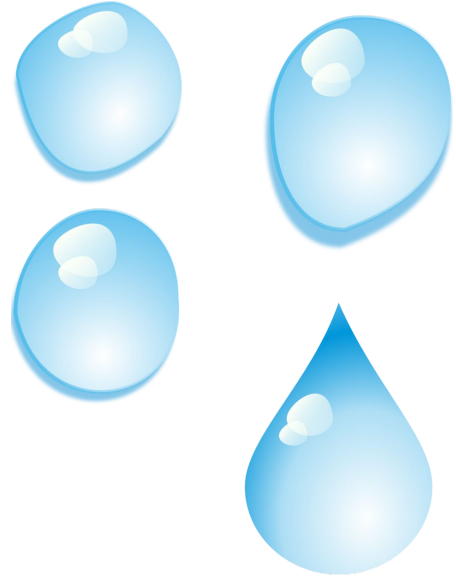
Consumed by

3 companies

- Olympus: 277,546,710 gallons
- CNX: 6,324,668 gallons
- Apex: 44,856,000 gallons

As much as

All houses in Vandergrift



ILLEGAL WITHDRAWALS IN 2023

DEP Issues Violation To CNX Gas Company For Unauthorized Water Withdrawals For 17 Days From Beaver Run Reservoir In Westmoreland County

On October 3, 2023, DEP [issued a notice of violation](#) to **CNX Gas Company LLC** for making unauthorized water withdrawals to support shale gas fracking operations for 17 days between May 6, 2023 and July 6, 2023 totaling 389,518 gallons.

The source of the water withdrawal was the Municipal Authority of Westmoreland County Beaver Run Reservoir in Bell and Washington Townships, Westmoreland County.

The reservoir is designated a High Quality-Cold Water Fishery by DEP.

CNX self-reported the violations on July 14, 2023 and “took immediate steps to prevent any future non-compliance withdrawals.”

DEP’s review of the incidents found the company’s permission for water withdrawals at the Beaver Run Reservoir-- Water Management Plan, Source 35, Collection Point 2-- had expired.

The company said, “CNX is currently awaiting approval of both the WMP [Water Management Plan] and Joint [Chapter 105] Permit Application for the Reservoir, which were submitted in February and May respectively.”

DEP published notice of an opportunity to comment on a proposed Chapter 105 permit application from CNX Gas for construction of a permanent, submerged water withdrawal intake in the Beaver Run Reservoir on September 2, 2023.

The comment period ended October 2. ([PA Bulletin, page 5550](#))

[DEP’s notice of violation](#) asked the company to submit a written plan on how they will return the situation to compliance within 10 business days.

Source: <http://www.paenvironmentdigest.com/>



WATER TAKEN BY THE OIL AND GAS INDUSTRY IN 2024

155,543,249 gallons

83% from BRR

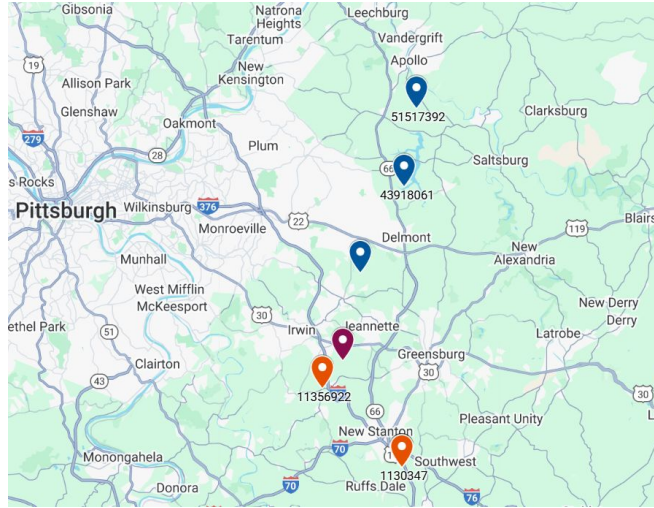
16% from Indian Creek

1% from mixing zone

Consumed by

4 companies

- Olympus: 82,462,031 gallons
- CNX: 52,073,502 gallons
- Apex: 13,741,636 gallons
- Range: 7,266,080



173,185,129 gallons LESS than 2023

ILLEGAL WITHDRAWALS IN 2024

CNX is using raw, untreated water. It agreed to pay \$8.57 for every 1,000 gallons of water it uses, the highest rate MAWC charges customers, according to Kukura.

CNX withdrew 53,000 gallons from the reservoir last Friday, more than 1.36 million gallons on Monday and 1.17 million gallons on Tuesday, according to the authority.

More than 20 million gallons is used each day to serve about 56,000 customers with drinking water. Beaver Run Reservoir is the primary source of drinking water for the northern half of the authority's nearly 123,000 customers. The authority provides water to residents in Westmoreland, Allegheny, Armstrong, Fayette and Indiana counties.

MARCH 11, 2024

Residents around the Bell Point
Pad report water impoundments
filling with water.

Source: <https://triblive.com/local/westmoreland/cnx-resources-to-pay-nearly-13k-for-each-1-5-million-gallons-drawn-from-beaver-run-for-fracking/>

CNX Resources to pay nearly \$13K for each 1.5 million gallons drawn from Beaver Run for fracking



RICH CHOLODOFSKY | Wednesday, March 20, 2024 4:59 p.m.

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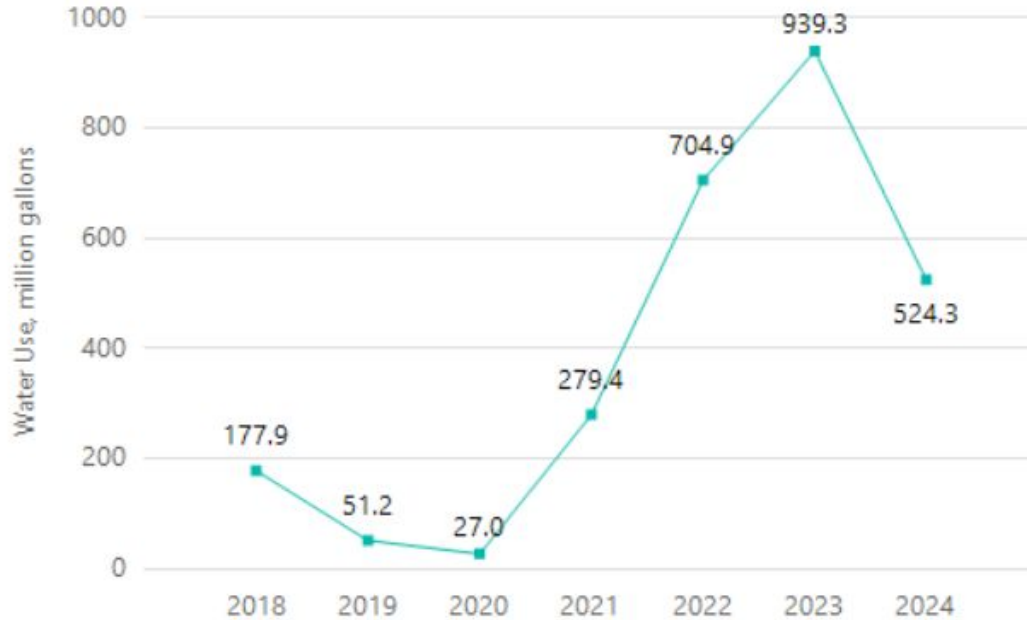


KRISTINA SERAFINI | TRIBLIVE

The Beaver Run Reservoir is seen March 12 after the Municipal Authority of Westmoreland County lifted a voluntary conservation order.

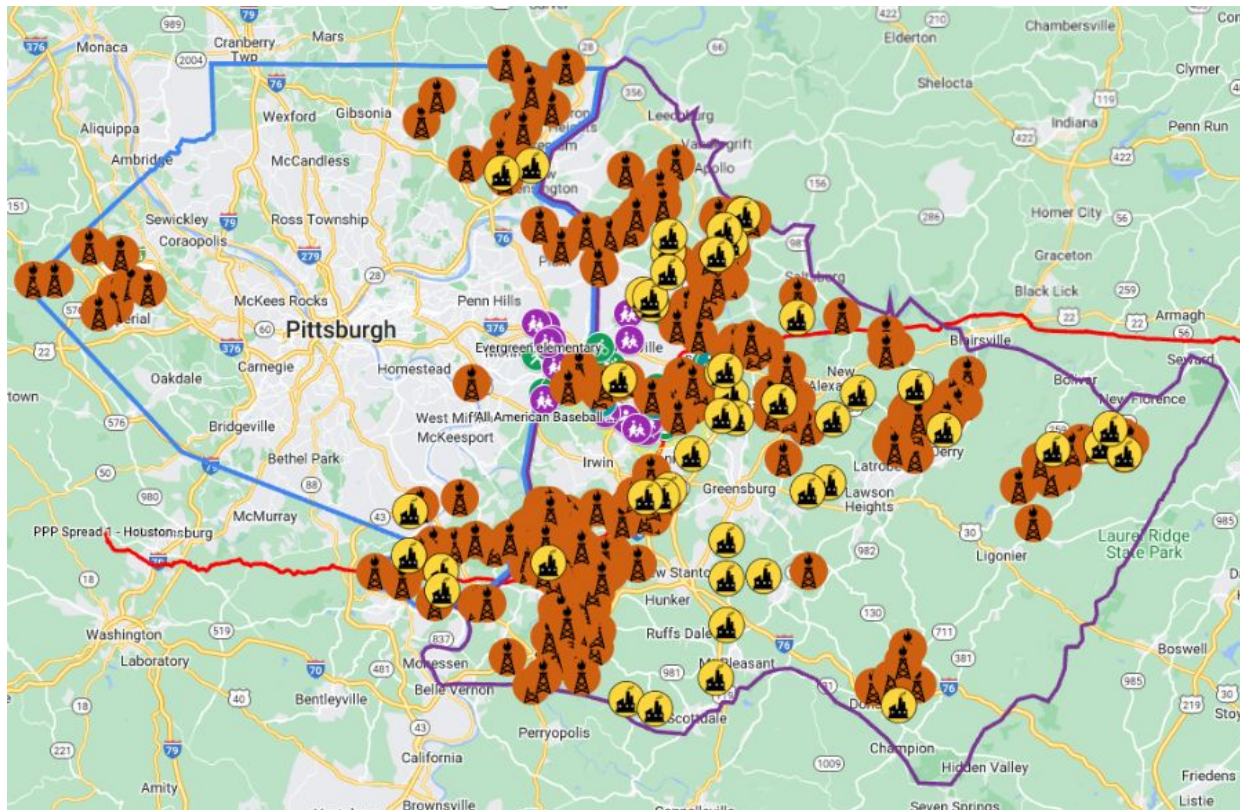
TRENDS: O&G WATER USE IN WESTMORELAND

Plot 1 - Yearly Total Water Use

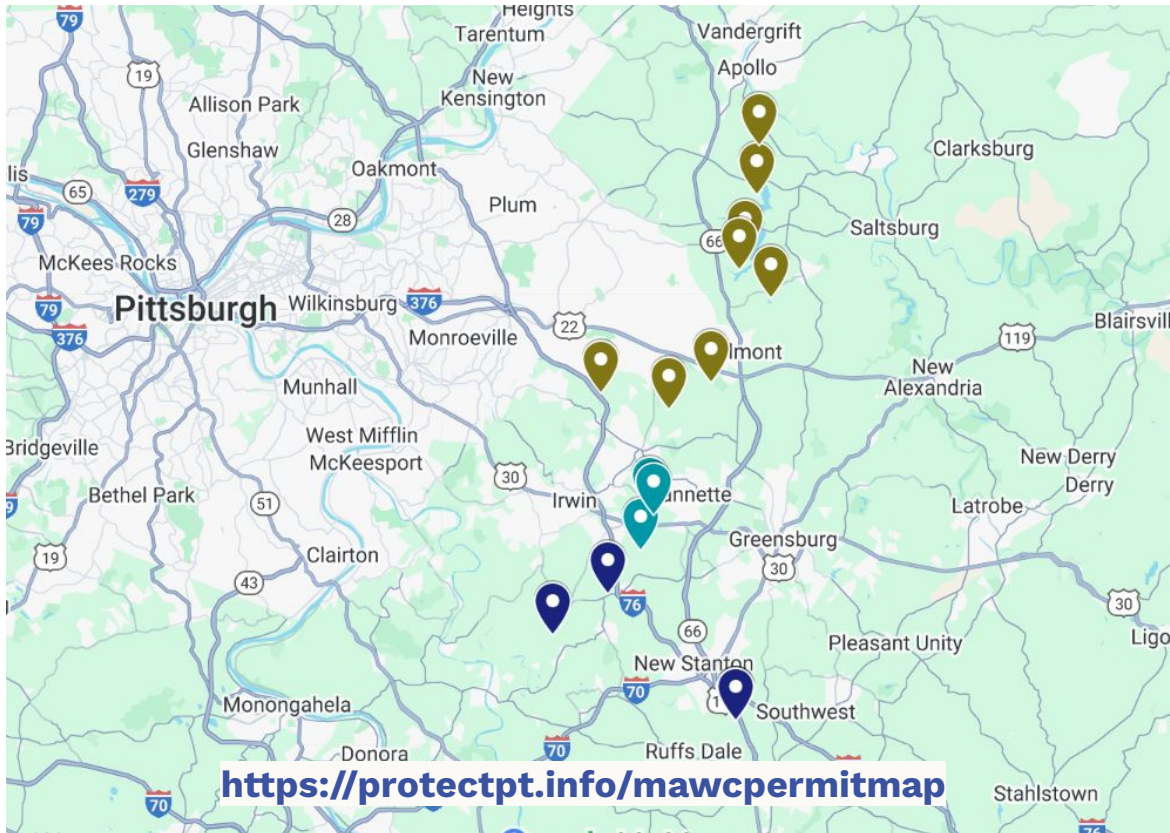


Source: <http://www.paenvironmentaligest.com/>

WHAT WILL FUTURE USE LOOK LIKE?



PERMITTED WATER WITHDRAWAL LOCATIONS



04

STRATEGIES FOR SUSTAINABLE WATER MANAGEMENT

STRATEGIES FOR SUSTAINABLE WATER MANAGEMENT



FAIR RATES

Charge more for consumers who permanently use up water



GOVERNANCE

Create a long term strategic plan for water conservation.



CONSERVATION

Pause fracking withdrawals whenever a drought watch or warning is declared



EFFICIENCY

Cap annual fracking withdrawals from Beaver Run Reservoir at half the amount used in 2023

STRATEGIES FOR SUSTAINABLE WATER MANAGEMENT

A HUGE WIN for clean water in Westmoreland County:

MAWC has raised the rate charged to fracking corporations per 1,000 gallons of water TWICE.

April 1, 2024

MAWC nearly doubled the amount they charge to fracking corporations, from \$5.37 per thousand gallons to \$9.40 per thousand gallons.

April 1, 2025

MAWC raised the rate again to \$10.30 per 1,000 gallons. For amounts in excess of 240,000 gallons, the rate goes up from \$6.60 to \$8.00 per thousand gallons.



FAIR RATES

Charge more for consumers who permanently use up water

How was MAWC created?

- April 9, 1942, the Westmoreland County Commissioners created the Municipal Authority, delegating to them the authority to manage water supplies, treat waste water and set prices.
- It's not clear whether the delegated authority was irrevocable or whether it could be modified.

Amending the current enabling ordinance for MAWC

- We have requested the original ordinance
- Next we will suggest changes to the ordinance requiring MAWC to follow the guidelines set forth in the PEMA plan and the Westmoreland Hazard Mitigation Plan and characterize water used for fracking as a “non-necessary” prohibiting use of water for that purpose during drought.



GOVERNANCE

Create a long term strategic plan for water conservation.

STRATEGIES FOR SUSTAINABLE WATER MANAGEMENT



EFFICIENCY

We will have to be diligent in calling for a pause on fracking withdrawals whenever we are in a drought watch

- Hold operators accountable
- Individuals should talk to their County Commissioners
- Asking MAWC board members to enact rules on fracking water withdrawals



CONSERVATION

TAKE ACTION



Write a letter to encourage MAWC to focus on

- A Strategic Plan on Water Conservation
- Long term Conservation Plan
- Efficiency



Share our letter writing campaign with your friends, neighbors, and colleagues



protectpt.info/MAWC-lettercampaign



Attend MAWC's Board Meetings

3rd Wednesday of Each Month @ 12PM

124 Park and Pool Road, New Stanton, PA

www.mawc.org/board-meetings

THANK YOU! ANY QUESTIONS?



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Hannah Hohman

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Thanks for tuning in!

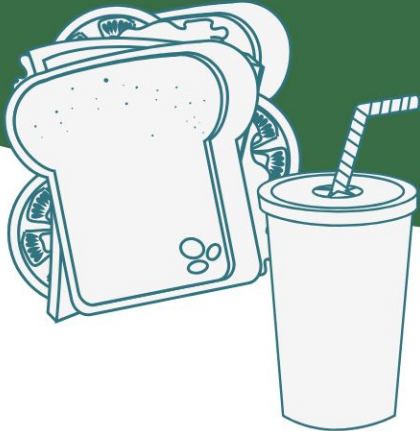
Join us on **June 24** for our next Lunch and Learn!



How was today's Lunch & Learn?

Let us know!

protectpt.info/lunchlearnsurvey



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