

Public Information Meeting
January 22, 2026

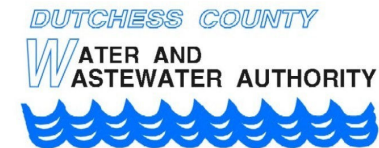
Addressing PFAS Contamination in the Quaker Hills Water System

Dutchess County Water and Wastewater Authority

Jonathan Churins, Executive Director

Vanessa Kichline, Project Facilitator

Jason Teed, PE, Project Manager



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Roosevelt Fire Station 3
830 Violet Ave, Hyde Park, NY

Our Goals Tonight



Introduce

Introduce DCWWA staff directly involved in improving drinking water in your area



Inform

Explain how the DCWWA operates, the current project status, upcoming infrastructure improvements, and estimated costs



Listen

Hear your thoughts and concerns



Plan

Work together to determine the next steps that best serve the Quaker Hills community

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About DCWWA

Not-for-profit public benefit corporation, not a private company

Independent public authority governed by our own Board, partnered with Dutchess County Government for certain administrative services

Operates under NYS procurement law: all major contracts awarded through competitive bidding

Subject to annual independent financial audits to ensure transparency and accountability

Committed to providing safe, reliable drinking water and effective, responsible wastewater treatment

A dedicated team of professionals delivering full-service solutions for water and wastewater systems

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The Quaker Hill Water System

Background

1965-1970: System Constructed

1976: Significant water main leaks

1978: Department of Health took control of the system

1980: Transferred from DOH to Town

2015: Transferred from Town to DCWWA

2021: PFAS contamination first documented

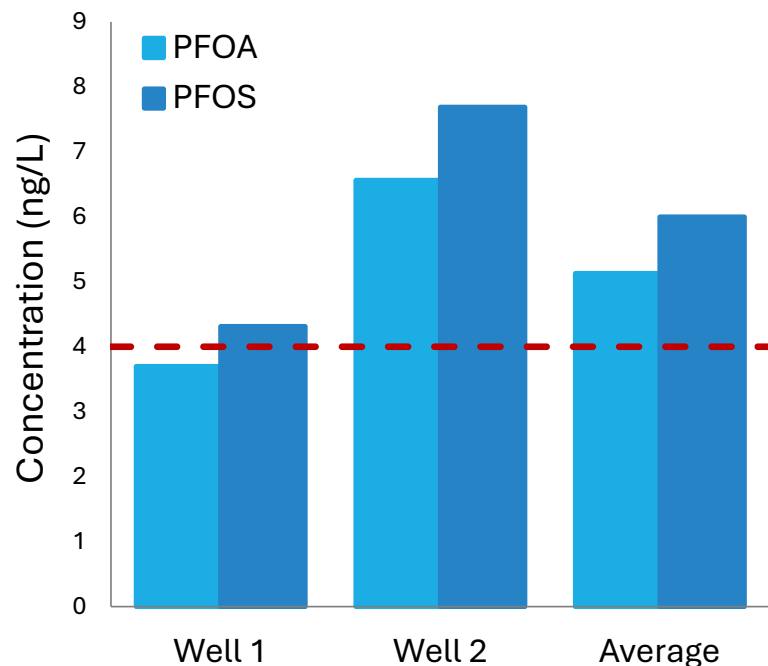
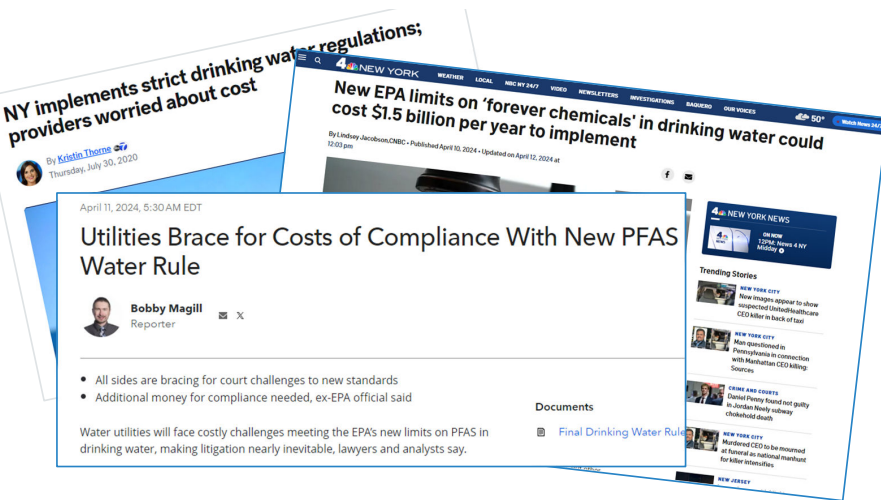
Aging treatment and distribution infrastructure

Existing Water Treatment Plant

- Shallow wells next to wetlands
- PFAS contamination
- Located in floodplain
- Structural deficiencies
- No fire protection

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[Images redacted for facility security]



PFAS in the Quaker Hill Water System

What it is

- Manmade “forever chemicals” used in many common household products

What it does

- No smell, color, or taste
- New research suggests long-term health risks

Why it is a persistent problem

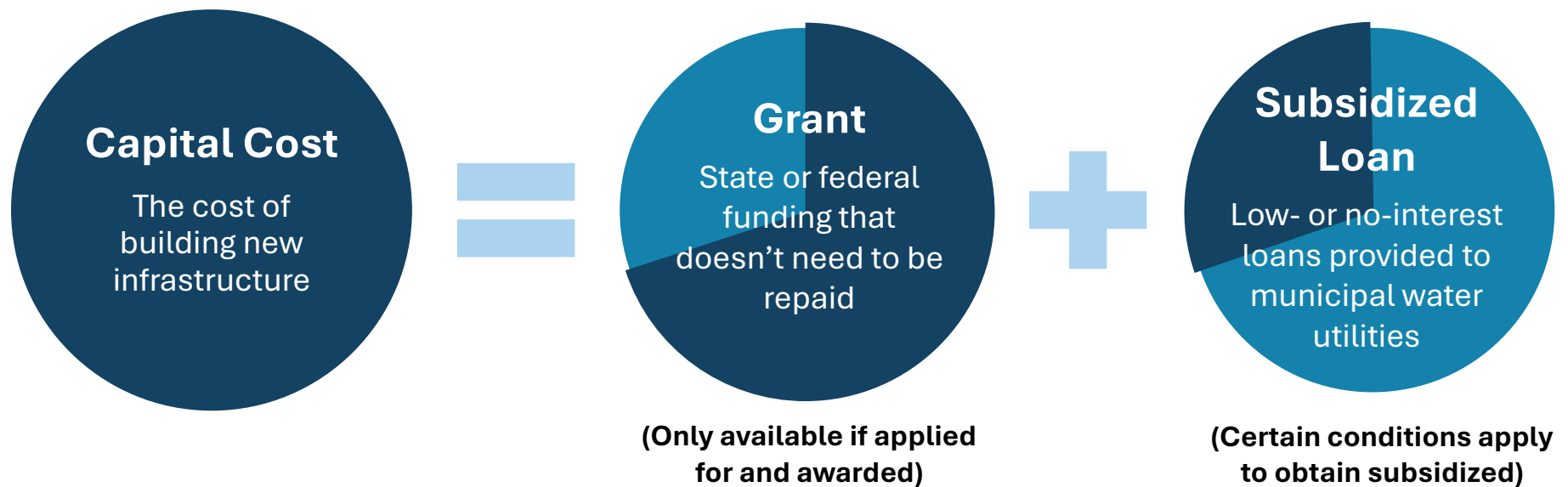
- Highly persistent in the environment and human body
- Requires advanced treatment systems or access to an unpolluted water source

Regulatory context

- Strict State and Federal compliance standards
- Costly testing requirements for routine monitoring
- Quaker Hill is in violation and requires a permanent solution

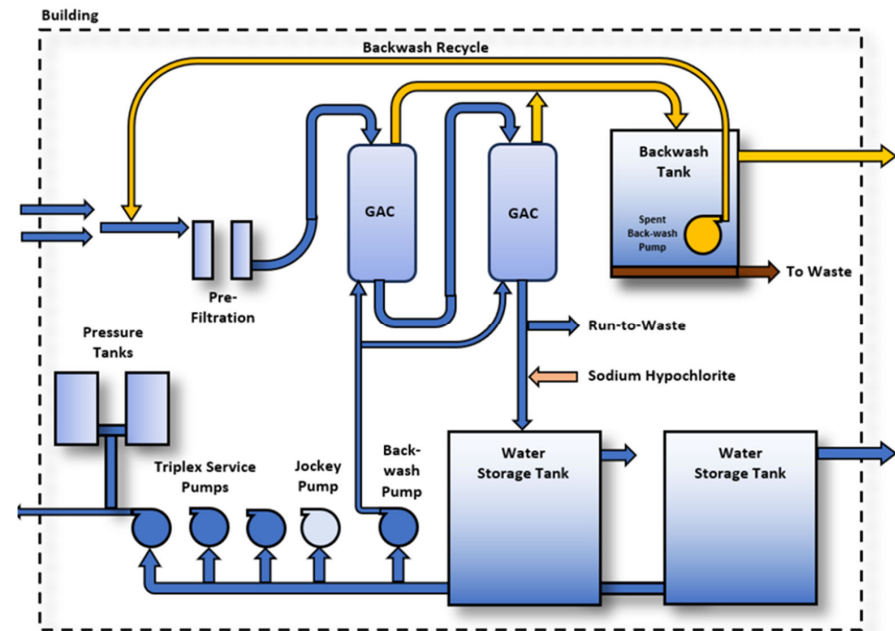
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How DCWWA Funds Infrastructure Projects



Alternative 1: Onsite Treatment

1. Demolish existing facilities
2. Construct larger elevated treatment building with deep foundation
3. Evaluate surface water influence on wells
4. Install new granular activated carbon (GAC) filters for PFAS treatment
5. Install new pre-treatment filters to maintain GAC
6. Install new finished water storage tanks
7. Install new finished water pressure tanks
8. Install new chemical dosing system for disinfection
9. Install new backwash system
10. Install new onsite spent backwash holding tank



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Capital Improvement Alternative 1: Onsite Treatment

Preliminary Anticipated Costs



\$7,941,000 Estimated Project Cost
-\$2,382,300 Estimated Potential Grant

\$5,558,700 Estimated Cost to Finance

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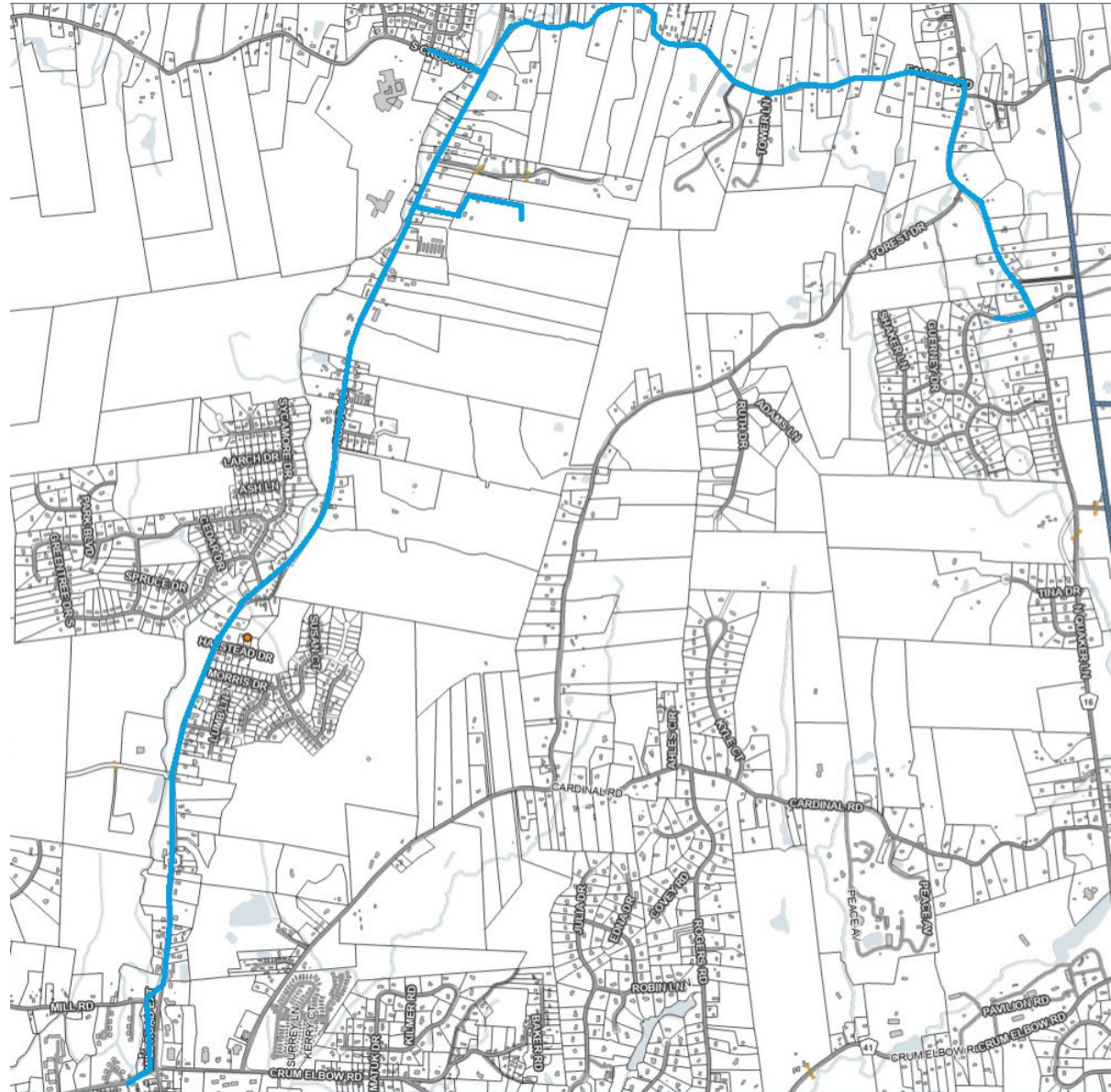
Alternative 2: Interconnection with HPRWS

1. Construct new booster station to regulate pressure
2. Install approximately 31,100 feet of new water main
3. Install new finished water storage tank
4. Abandon existing facilities

Future Phase:

5. Install new water meters

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Capital Improvement Alternative 2: Interconnection of Quaker Hill to Hyde Park Regional

Preliminary Anticipated Costs



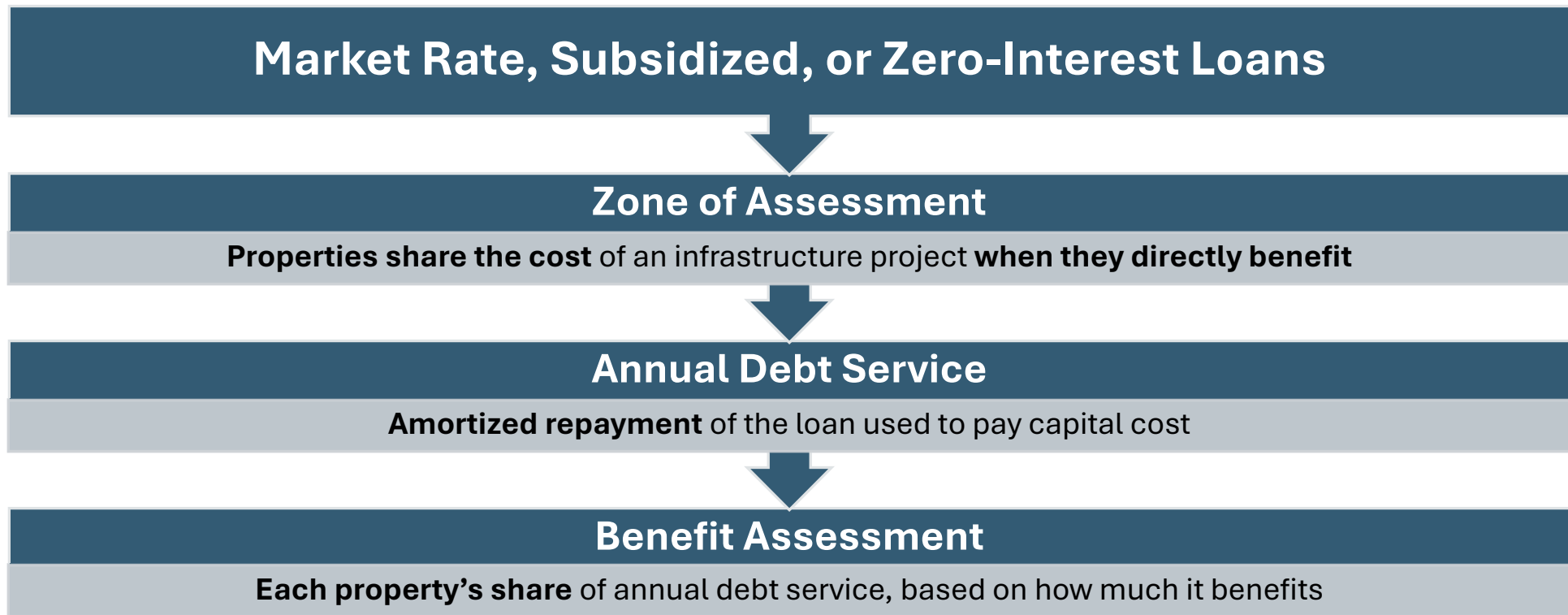
\$21,875,700 Estimated Project Cost

-\$15,312,990 Grant

\$6,562,710 Estimated Cost to Finance

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How Infrastructure Project Loans are Repaid



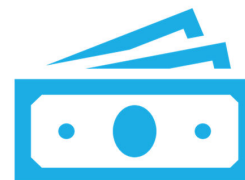
Addressing PFAS at Quaker Hill: Funding Sources



Secured Funding

\$15,312,990 in State and Federal Grants

\$184,132 Phase 1 Class Action Settlement



Potential Funding

Congressional Earmarks

Phase 2 Class Action Settlement

Dutchess County funding allocation

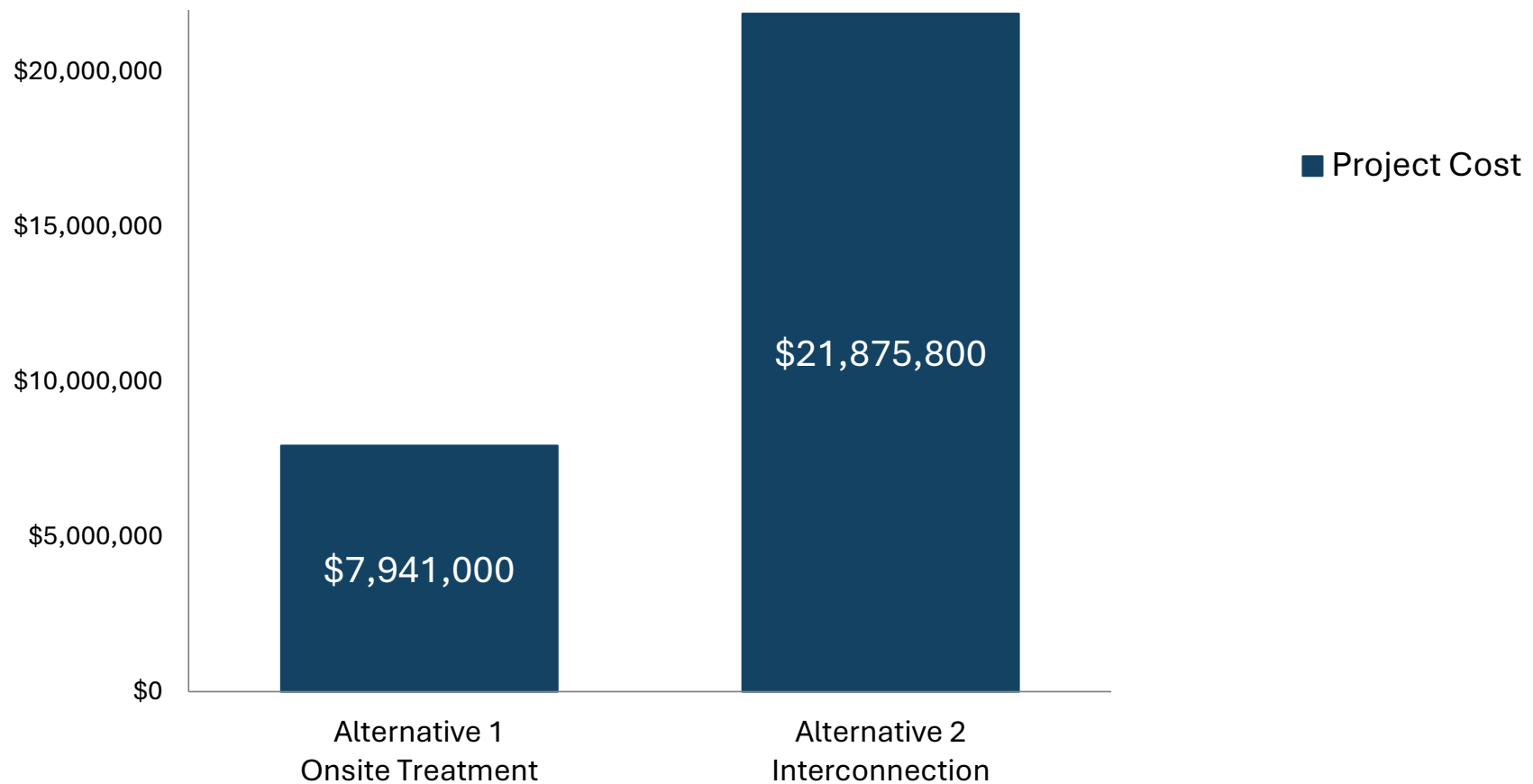
System Fund Balance

**DCWWA continues to seek any eligible
funding to help offset costs on its projects**

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Cost Comparison

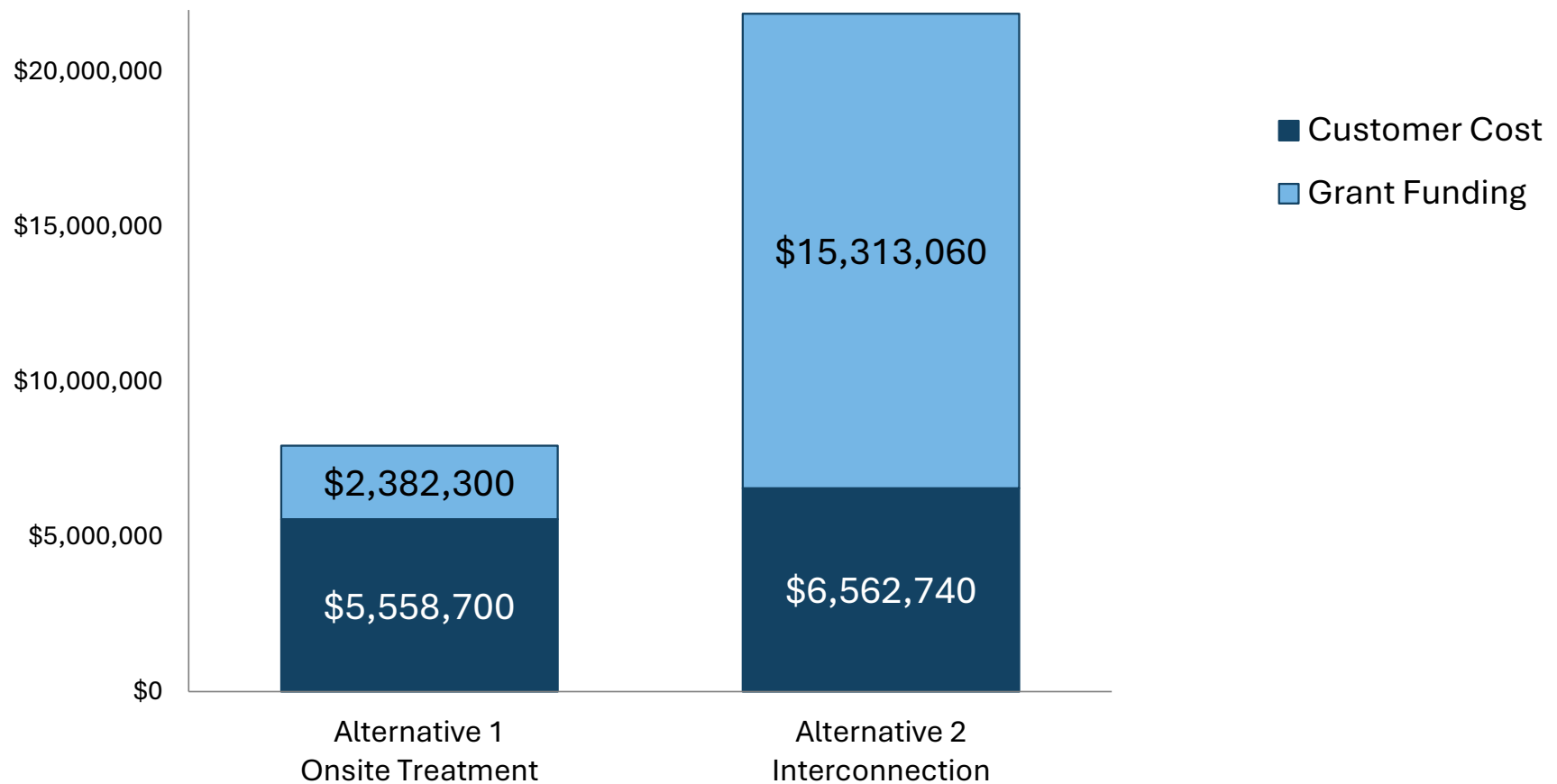
Onsite Treatment vs. Interconnection



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Cost Comparison

Onsite Treatment vs. Interconnection



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Sharing Capital Costs with Regional Partners



Interconnection creates a regional solution



DCWWA has been planning ahead to make future connections possible



All benefiting properties are included in cost sharing



Broader cost sharing means lower costs for everyone

Meet Your Interconnection Project Partners

Quaker Hill Estates

- Our primary goal is to serve **you**, our existing customers
- Quaker Hill contains:
 - 109 Residential Connections
 - 1 Developable Vacant Lot
 - 4 Undevelopable Vacant Lots
 - Water Treatment Plant parcel (wetland)



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Meet Your Interconnection Project Partners

Dutchess Estates

- Existing privately-owned system
- Long history of color and odor issues
- Insufficient source water quantity
- Needs major treatment plant upgrade
- Dutchess Estates contains:
 - 120 Residential Connections
 - 28 Developable Vacant Lots
 - 1 Church/Daycare

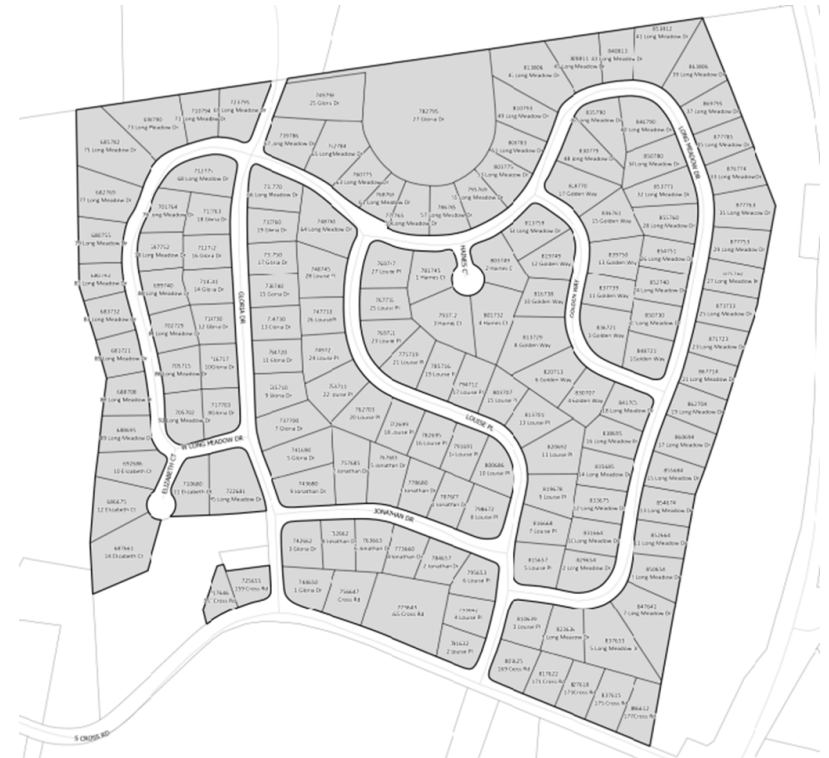


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Meet Your Interconnection Project Partners

South Cross Road (Golden Meadows)

- Existing privately-owned system
- Insufficient water storage
- Needs major treatment plant upgrade
- South Cross contains:
 - 147 Residential Connections
 - 2 Developable Vacant Lots
 - 1 Firehouse

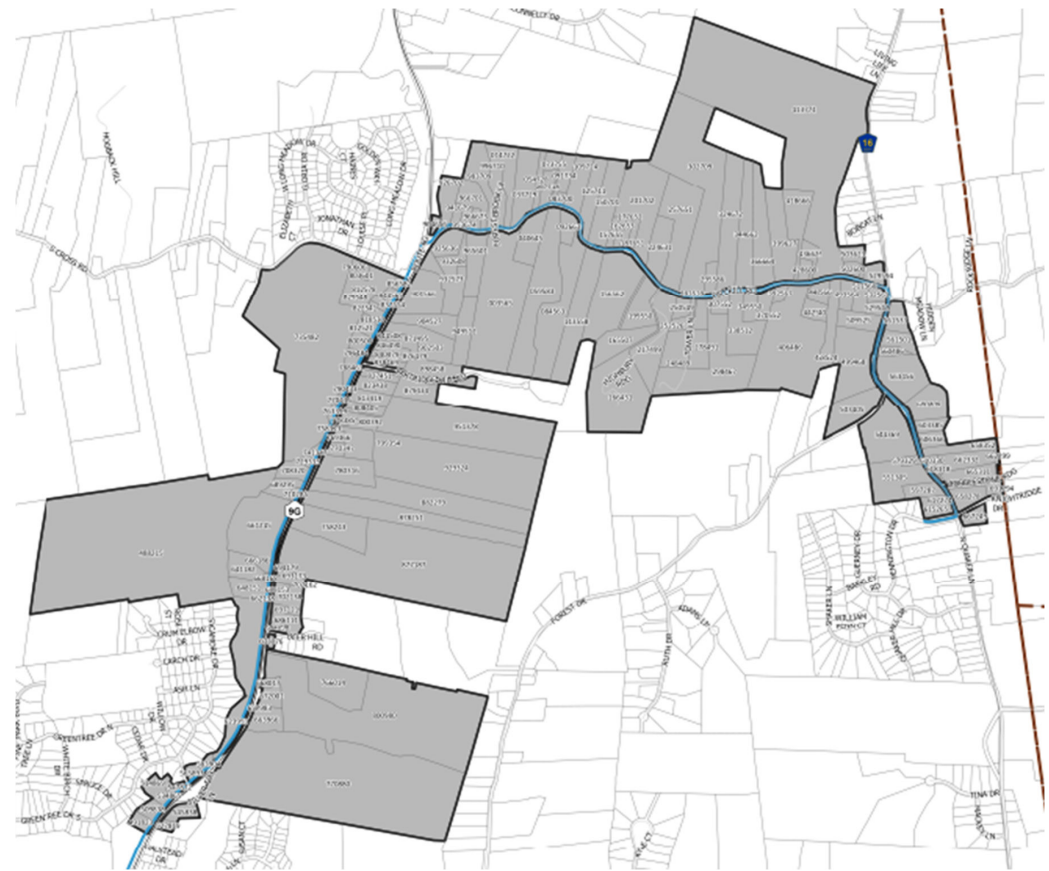


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Meet Your Interconnection Project Partners

North Park Region

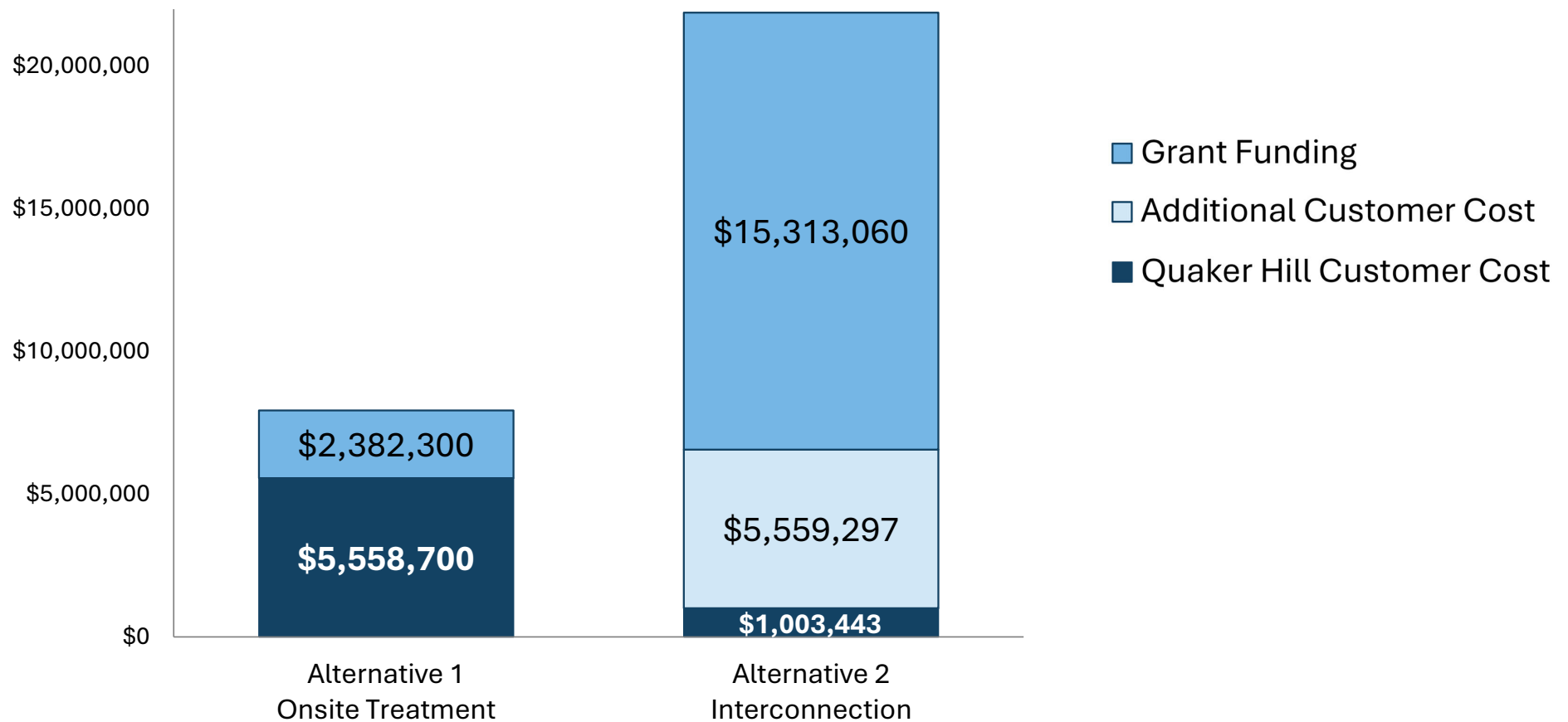
- Served by domestic wells or very small standalone water systems
- Wide range of water quality complaints
- North Park contains:
 - 136 Residential Properties
 - 21 Developable Vacant Lots
 - 26 Commercial Properties
 - 2 Schools



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Cost Comparison

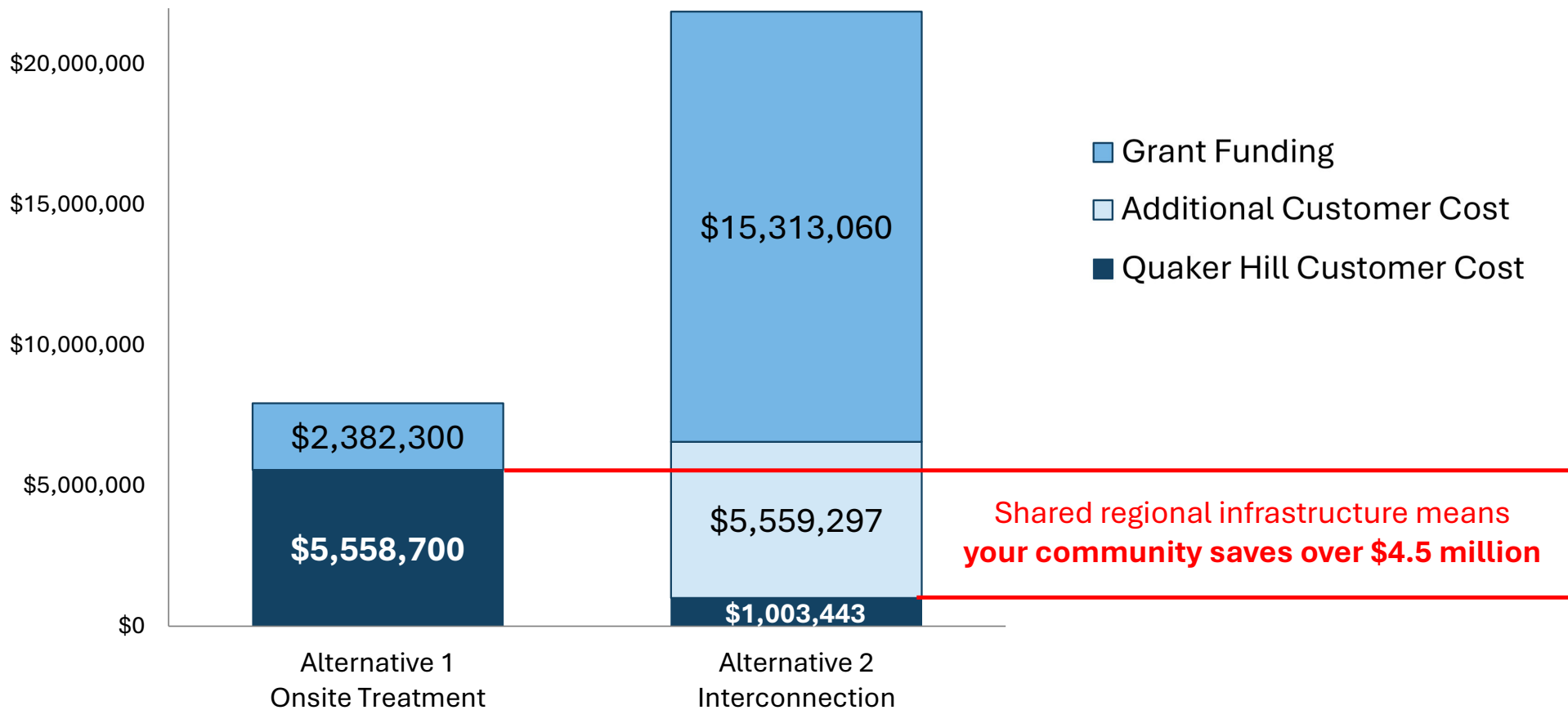
Onsite Treatment vs. Interconnection



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Cost Comparison

Onsite Treatment vs. Interconnection



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How DCWWA Funds Water Systems

Operations and Maintenance (O&M)

- Typically funded by **system users** based on metered consumption
- Quaker Hill currently uses a fixed rate
- Paid through **quarterly water bills**
- Covers **daily costs** of running the system
 - Electricity
 - Chemicals & Testing
 - Staff
 - Repairs

Capital Improvements

- Funded by **benefitted properties** based on benefit assessment
- Paid through **annual property tax bill**
- Covers **big, long-term projects**
 - New water mains
 - Storage tanks and pump stations
 - Treatment upgrades
 - Water meter installation/replacement
- **Always seeking grants to offset Capital Improvements costs**

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Capital Cost per Household

Your Annual Tax Assessment

	New Project Debt Service	Existing Debt Service	Total Annual Debt Service	Cost Impact
Existing Quaker Hill Treatment Plant	\$0	\$0	\$0	N/A
Alternative 1 Onsite Treatment	\$2,774	\$0	\$2,774	+ \$2,774
Alternative 2 Interconnection	\$494	\$132	\$626	+ \$626

Note: Values shown are estimates and will be updated once final construction bids are awarded.

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Operations and Maintenance Cost per Household

Your Final Metered Quarterly Water Bill (2026 rates)

	Service Fee (applied monthly)	Usage Price (per 1,000 gallons)	Total Annual Water Bill	Cost Impact
Existing Quaker Hill Treatment Plant	\$321.24 (flat rate)		\$1,285	N/A
Alternative 1 Onsite Treatment	\$570.00 (flat rate)		\$2,280	+ \$995
Alternative 2 Interconnection	\$25.22	\$9.12	\$852	- \$433

Note: Values shown reflect estimated average annual operation and maintenance costs, billed quarterly.
Calculations are based on an average household use of 165 gallons per day.

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Total Cost per Household

Your Total Annual Cost Estimate (Tax Assessment + O&M)

	Annual Total Water Bills	Annual Tax Assessment	Total Annual Cost	Cost Impact
Existing Quaker Hill Treatment Plant	\$1,285	\$0	\$1,285	N/A
Alternative 1 Onsite Treatment	\$2,280	\$2,774	\$5,054	+ \$3,769
Alternative 2 Interconnection	\$852	\$626	\$1,478	+ \$193

Note: Estimates reflect annual O&M costs billed quarterly and average **metered** use of 165 gallons per day.
Capital cost estimates are preliminary and will be updated after construction bidding.

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Why DCWWA Selected Interconnection

Best Financial Outcome for the Community

- Lowest long-term cost for Quaker Hill customers
- Shares major treatment and storage costs regionally
- Avoids repeated, costly rebuilds of a small, standalone system

Independent Expert Review

- Multiple independent engineering firms evaluated the options
- The New York State Environmental Facilities Corporation approved the project and awarded over \$15 million in grant funding
- New York State Department of Health reviewed and approved the project approach
- All reached the same conclusion: **Interconnection provides the most reliable and cost-effective long-term solution**

Alignment with State and Federal Priorities

- Interconnections and regionalization are top priorities at the State and Federal level
- Strengthens funding eligibility and long-term regulatory compliance

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Path Forward

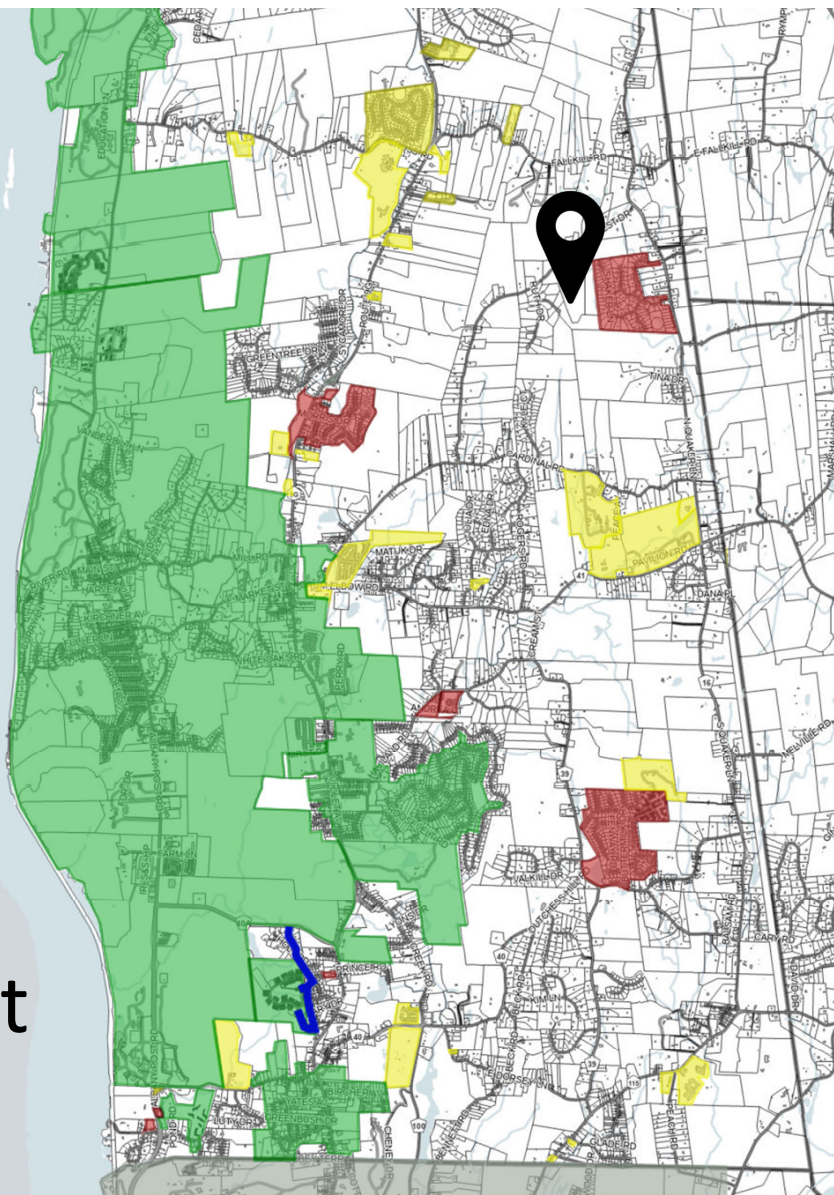
- Procure Design (Fall 2026)
- Start Design (Winter 2026-2027)
- Start Construction (Spring 2028)
- System Commissioning (Summer 2030)
- Transitional Water Period (Summer 2031)

All time frames are subject to supply chain and material sourcing

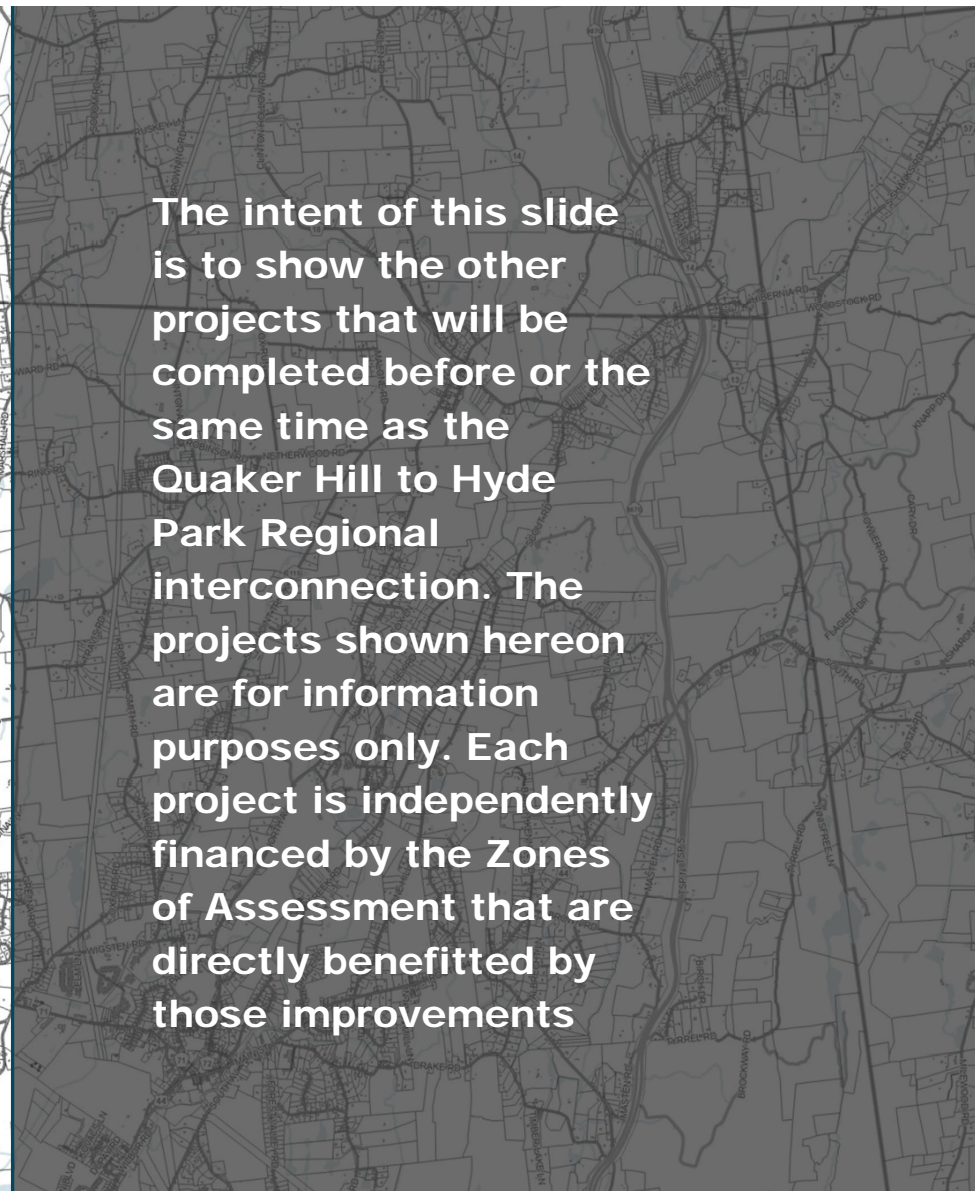
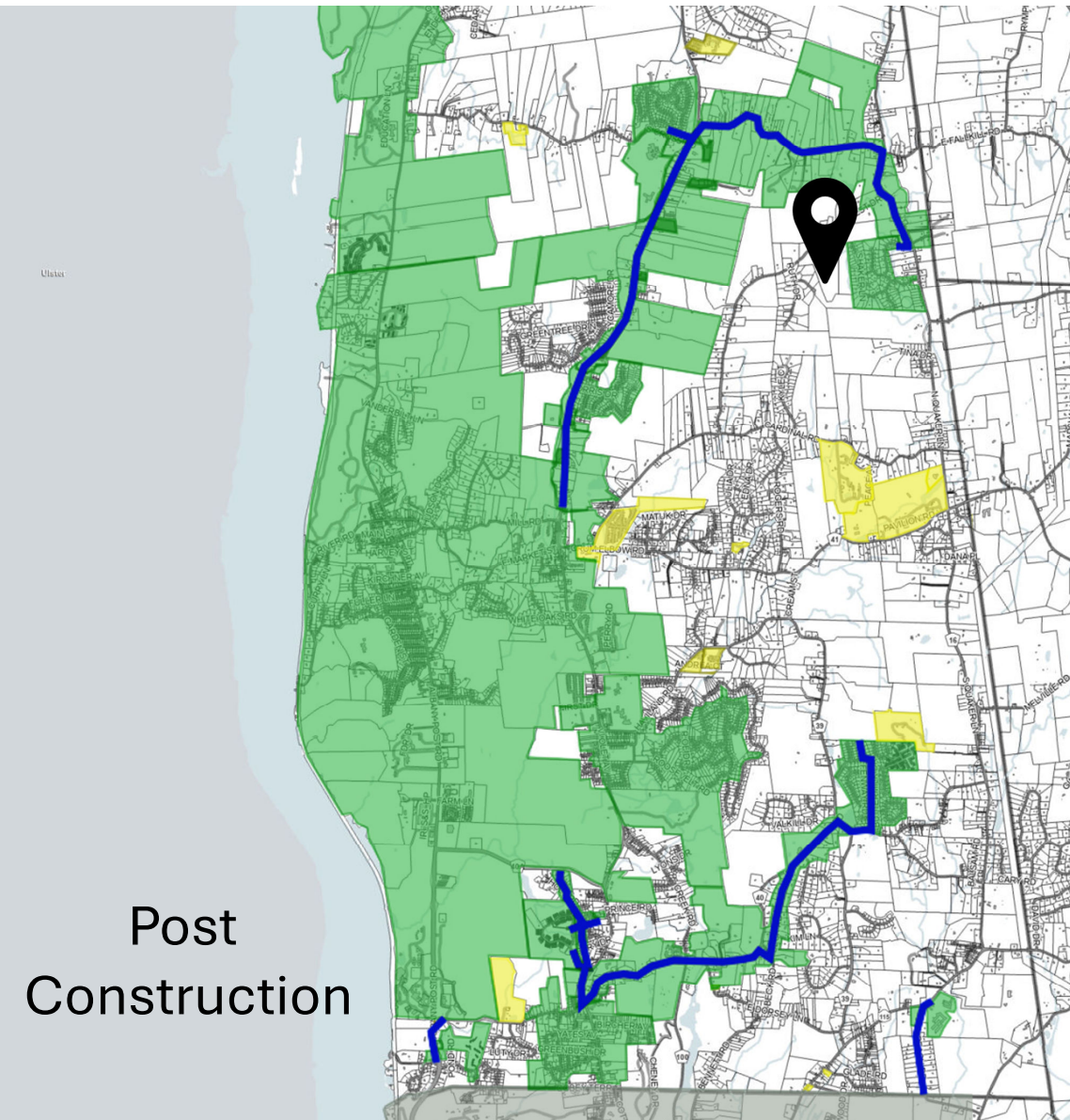
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Current




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The intent of this slide is to show the other projects that will be completed before or the same time as the Quaker Hill to Hyde Park Regional interconnection. The projects shown hereon are for information purposes only. Each project is independently financed by the Zones of Assessment that are directly benefitted by those improvements

Post
Construction

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A photograph of a construction site. A long, narrow trench has been dug into the ground, and a large blue pipe is being laid along its length. To the left of the trench is a concrete sidewalk and a row of tall, brown hedges. To the right is a dirt road. In the background, there are yellow excavators, a worker in a safety vest, and a white truck under an overcast sky.

Responding to **your questions**

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You asked: Questions from the Community

Q: *Costs in comparison to current. And will costs go up as much as they have been for Quaker Hill Water District. Insane price increases year to year.*

A: We understand the concern, especially given what Quaker Hill customers have experienced in recent years. It is important to explain *why* those increases occurred.

Most of Quaker Hill's recent cost increases were driven by new regulatory requirements and major, unavoidable projects, including:

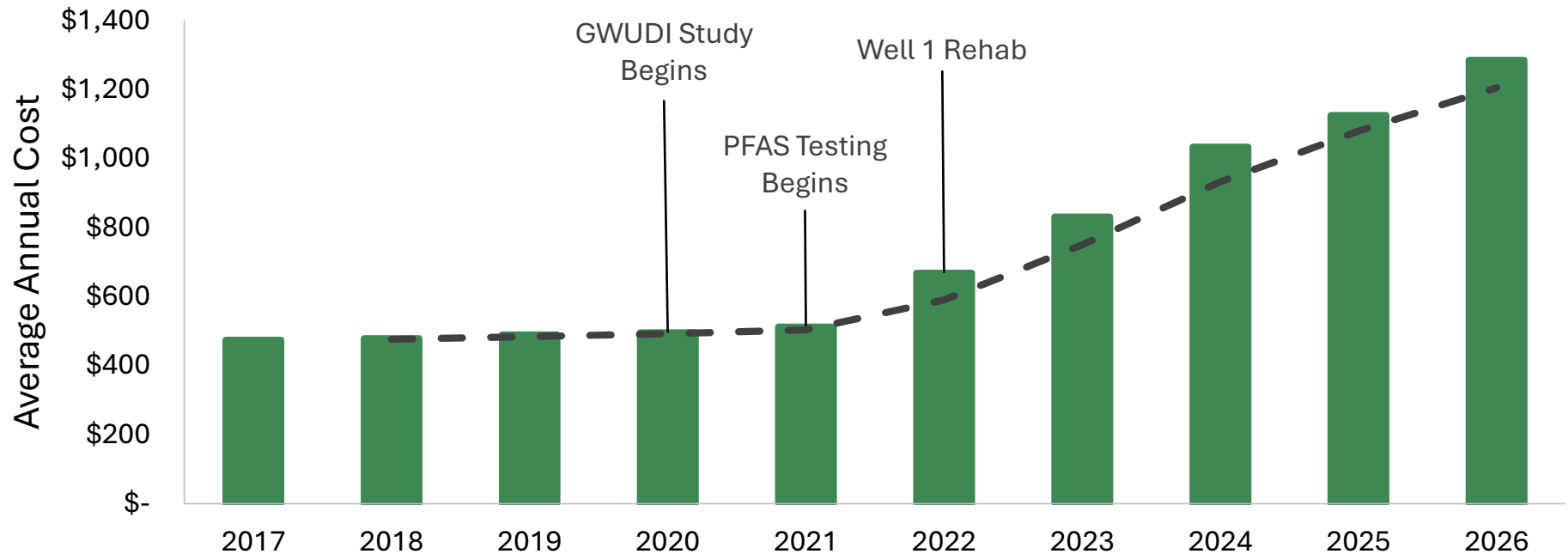
- The start of quarterly PFAS testing, which significantly increased ongoing operating costs
- A required GWUDI evaluation, which was a large and complex regulatory effort
- A major rehabilitation of one of the two wells, which was a substantial capital project necessary to keep the system operating safely

At the same time, during and after COVID, operating costs increased across the entire water industry. Utilities everywhere saw sharp increases in electric rates, chemical costs, materials, fuel, and labor, all of which directly affect water system budgets.

You asked: Questions from the Community

Q: *Costs in comparison to current. And will costs go up as much as they have been for Quaker Hill Water District. Insane price increases year to year.*

A:

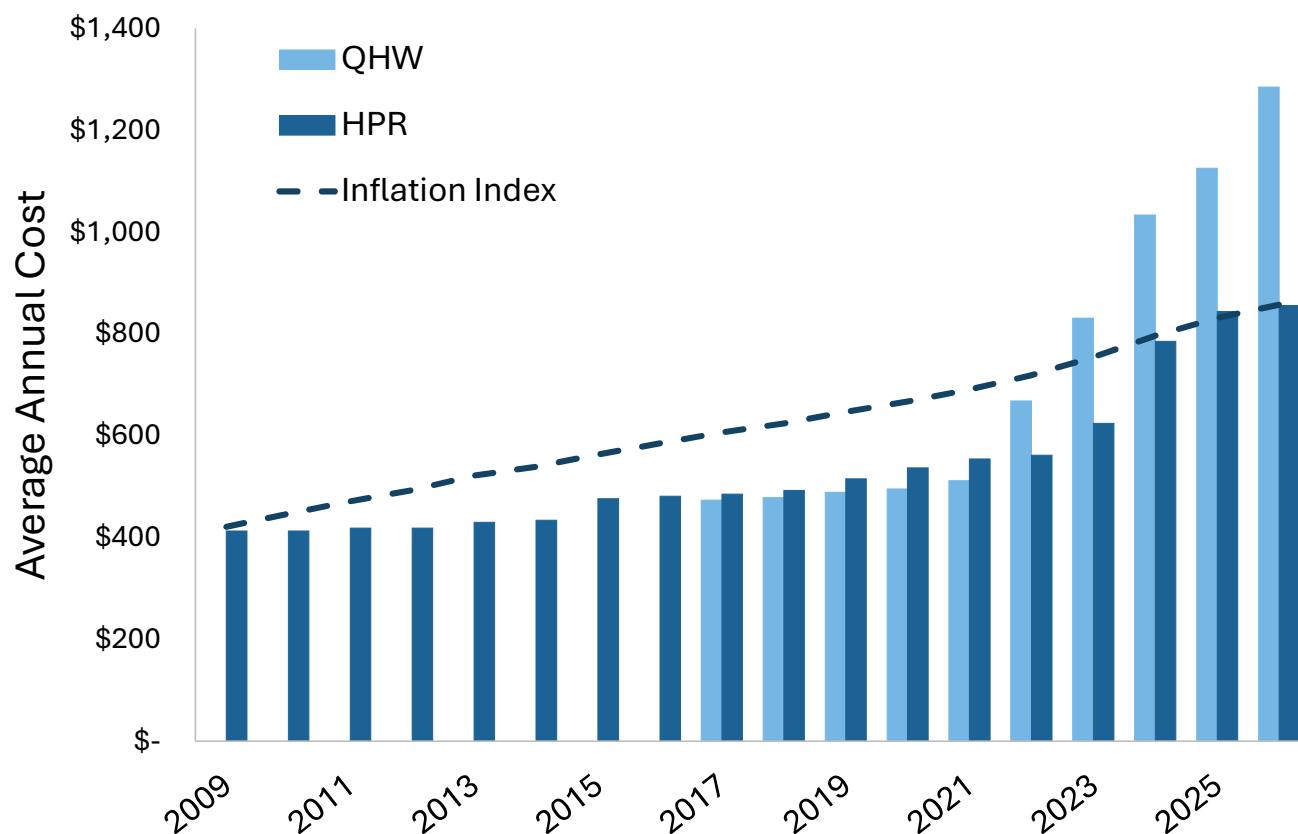


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January 22, 2026
Roosevelt Fire Station 3
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You asked: Questions from the Community

Q: *Costs in comparison to current. And will costs go up as much as they have been for Quaker Hill Water District. Insane price increases year to year.*

A: Costs have increased across the industry, but the sharpest increases have been seen in very small systems with significant water quality issues. Hyde Park's rates have increased more steadily and largely in line with inflation.



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January 22, 2026
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You asked: Questions from the Community

Q: *Is our water safe to drink?*

A: The water currently meets State drinking water standards, but it does not consistently meet new Federal compliance limits for PFAS compounds.

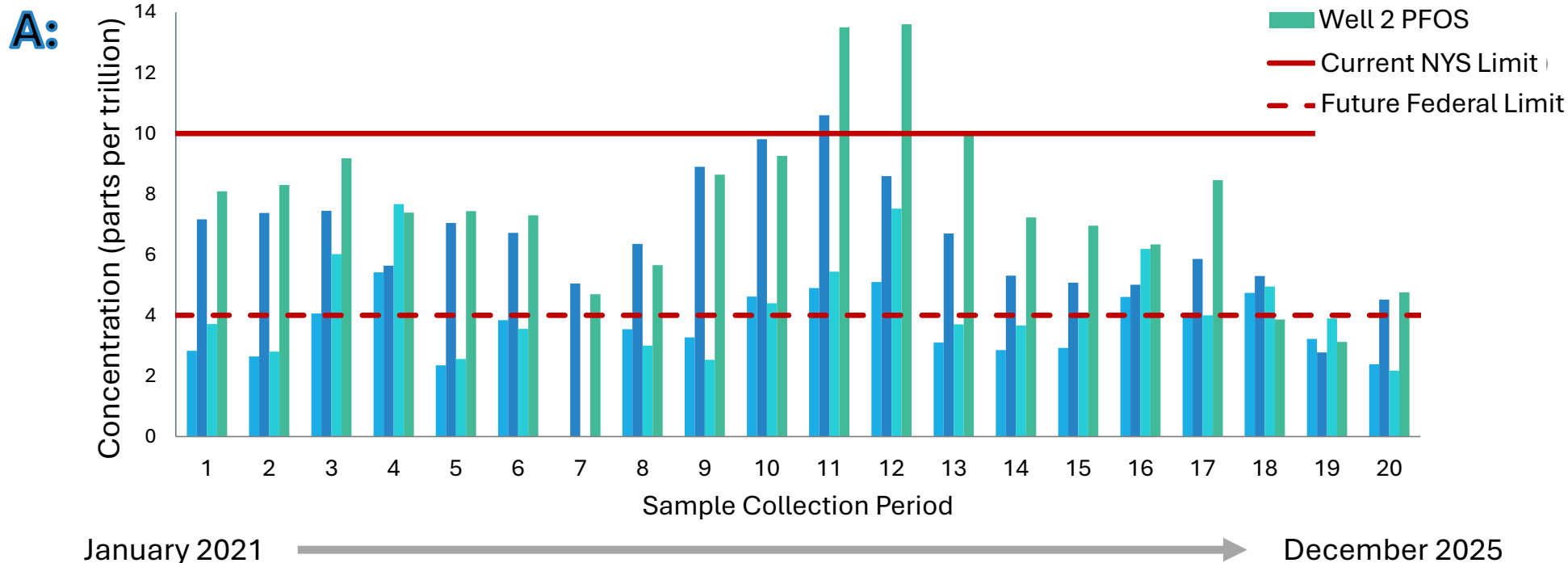
Since 2021, we have completed 20 rounds of sampling. Three of those samples showed PFAS levels that exceed current New York State standards, and results have varied over time. **While most results meet today's standards, the levels observed often exceed the upcoming Federal limits**, which are significantly more stringent.

It is also important to understand that **no level of PFAS exposure is considered completely risk-free**. That is why regulators continue to tighten standards as science evolves. The levels detected here are low, but they are part of a long-term trend that we are actively managing.

This project is a proactive step to protect public health, stabilize future costs, and ensure that your community has a reliable water supply that meets both current and future regulatory standards, while taking advantage of available grant funding.

You asked: Questions from the Community

Q: *Is our water safe to drink?*



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January 22, 2026
Roosevelt Fire Station 3
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You asked: Questions from the Community

Q: *We are paying a flat rate which is astronomical. How about removing the meters in all of the residents and replace them with house filters at your expense?*

A: The current rate structure reflects the actual costs of responsibly operating and maintaining your water system. Quaker Hill is a very small system with high treatment and regulatory costs that are shared across a limited number of customers. DCWWA receives no outside operating subsidies, meaning **every dollar of Quaker Hill's operating cost is paid by the customers it serves.**

The meters currently in place are not actively maintained except when a specific meter causes a leak. **Removing all meters would be a major and expensive project, and it would increase customer costs,** which is why it has not been pursued. DCWWA is currently seeking grant funding for a meter replacement project for Quaker Hill.

While we appreciate your suggestion, **replacing meters with individual household filters is not a practical alternative.** If DCWWA installed point-of-use treatment devices in each home, New York State regulations would require DCWWA to maintain, inspect, repair, test, and monitor every unit on an ongoing basis to ensure compliance with drinking water standards. That responsibility **would create significant new staffing, maintenance, and monitoring costs.** Because Quaker Hill's expenses are funded entirely by customer rates, those added costs **would result in substantially higher bills for residents.**

Slides presented at public meeting
January 22, 2026
Roosevelt Fire Station 3
830 Violet Ave, Hyde Park, NY

You asked: Questions from the Community

Q: *The coil in my boiler had to be replaced because it had a hole in it and flooded my basement only after three years of replacing it. The plumber claims that this issue is common in our development due to the high chlorine levels in the water, he said when the water gets hot it is like acid and burns holes in the copper. Looking forward to some answers. I don't believe our water bill should go up any higher than it already is.*

A: We are sorry to hear about the damage you experienced in your home. Corrosion in plumbing and water heaters is a complex process influenced by many factors, including temperature, dissolved oxygen, hardness, alkalinity, and equipment condition. It is a normal and expected process that **can be slowed through maintenance, but never completely prevented.**

While chlorine is an oxidizer that can *slightly* increase corrosion rates over time, there is very little evidence to suggest that normal drinking water chlorine levels directly cause rapid failures of copper components. Chlorine levels in the Quaker Hill system are maintained within strict regulatory limits. Daily records for 2025 show an **average of 1.45 parts per million**, which is typical for public drinking water systems and **not unusually high** compared to other communities.

You asked: Questions from the Community

- Q:** *The coil in my boiler had to be replaced because it had a hole in it and flooded my basement only after three years of replacing it. The plumber claims that this issue is common in our development due to the high chlorine levels in the water, he said when the water gets hot it is like acid and burns holes in the copper. Looking forward to some answers. I don't believe our water bill should go up any higher than it already is.*
- A:** Premature failure of a boiler coil or water heater is most often related to equipment condition and routine maintenance. Water in this area is considered **moderately hard**, and hard water can contribute to mineral buildup inside hot water equipment, which can increase corrosion over time. For this reason, manufacturers **recommend regular maintenance such as flushing or cleaning the heater and inspecting the sacrificial anode rod**. Periodic servicing helps reduce mineral accumulation and extend the life of heating equipment.
- You may be pleased to learn that the Hyde Park Regional Water System provides water that is much lower in hardness, so **mineral buildup in plumbing and appliances will occur more slowly after the interconnection** than it does today. As part of the treatment process, Hyde Park Regional also adds **tripolyphosphate for corrosion control**. This helps form a protective coating on pipes and **can help preserve household plumbing over time**.

You asked: Questions from the Community

Q: *What specific perfluorakyl compounds have been detected and in what concentrations? In How many samples over what period have PFAs been found? Has the source of these contaminants been determined? Have you obtained guidance from NYSDEC Division of Water?*

A: Comprehensive PFAS testing has been conducted for both of Quaker Hill's source wells since 2021, and **PFAS compounds have been detected in all 20 set of samples** collected over that period. The compounds most consistently detected are **PFOA, PFOS, PFBS, PFHxA, PFHxS, and PFHpA**. Three additional compounds, **N-MeFOSAA, PFDA, and PFUnA**, were detected only once in 2021 and have not been detected since. **PFNA** has been detected twice, in 2021 and 2023. A summary of concentrations of each detected compound will be shown on the next slide, and this information is publicly available through Annual Water Quality Reports.

No specific contamination source has been identified. PFAS compounds are widespread in the environment due to decades of use in common products such as nonstick coatings, stain-resistant fabrics, and firefighting foams.

Public drinking water systems are regulated by the New York State Department of Health, and **DCWWA has worked closely with NYSDOH on all PFAS sampling, compliance, and corrective actions** for Quaker Hill. NYSDEC's role generally involves investigating environmental contamination sources, which has not been required in this case. For this project, NYSDEC's involvement has been limited to routine SEQR review of project plans.

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January 22, 2026
Roosevelt Fire Station 3
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Q: *What specific perfluorakyl compounds have been detected and in what concentrations? In How many samples over what period have PFAs been found? Has the source of these contaminants been determined? Have you obtained guidance from NYSDEC Division of Water?*

PFAS Compound	Quaker Hill Well 1			Quaker Hill Well 2			Hyde Park Regional			Current NYS limit	Future EPA limit
	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max		
PFOA	2.17	3.69	5.42	2.77	6.56	10.6	ND	2.33	3.57	10	4
PFOS	2.38	4.31	7.67	3.12	7.69	13.6	ND	1.27	2.19		
PFBS	ND	2.38	4.70	1.85	3.45	4.99	ND	0.61	1.90	No Limit	Hazard Index
PFHxS	ND	1.01	1.75	ND	1.22	1.65	ND	0.25	0.99	No Limit	
PFNA	Never Detected			ND	0.09	0.81	Never Detected			No Limit	
PFHpA	ND	0.87	1.58	ND	1.64	2.63	ND	0.66	0.95	No Limit	No Limit
PFDA	Never Detected			ND	0.04	0.61	Never Detected			No Limit	No Limit
PFUnA	Never Detected			ND	0.05	0.75	Never Detected			No Limit	No Limit
N-MeFOSAA	Never Detected			ND	0.04	0.71	Never Detected			No Limit	No Limit
PFHxA	ND	1.78	2.78	2.21	3.45	6.14	Never Detected			No Limit	No Limit

Slides presented at public meeting
January 22, 2026
Roosevelt Fire Station 3
830 Violet Ave, Hyde Park, NY

You asked: Questions from the Community

Q: *Which water system contains the contamination? If the systems are consolidated is there any risk of spreading contamination into the expanded area? Will there be any changes to rates for quaker hill with these changes?*

A: Both **Quaker Hill and Dutchess Estates** have documented PFAS concentrations that exceed the EPA's health-based limit of 4 parts per trillion. The remaining properties to be interconnected do not have documented exceedances of any health-based drinking water quality standards.

Once Quaker Hill is connected to the Hyde Park Regional Water System, water will flow from Hyde Park to Quaker Hill, not the other way around. The existing wells the currently serve Quaker Hill and the other systems involved in this project will be taken out of service and will no longer be used as a drinking water source. Because of this, **there will be no pathway for contamination from wells to enter the Hyde Park system.**

A key purpose of the interconnection is not only to address PFAS, but also to transition Quaker Hill customers to the Hyde Park Regional rate structure, which is lower and more stable. Over time, Quaker Hill customers are expected to benefit from **reduced operating costs and more predictable long-term rates** as part of a larger regional water system.

You asked: Questions from the Community

Q: *Will this further delay the infrastructure upgrade to the pipes and damaged roads in quaker hill?*

A: No. In fact, this project helps make those future upgrades possible.

Before the interconnection plan, Quaker Hill was facing two major needs at the same time: replacement of the aging treatment plant and replacement of old distribution pipes. Quaker Hill is **under DOH regulatory orders to upgrade or replace the treatment plant**. There is no similar legal requirement to replace the internal distribution system. Attempting to complete both projects at the same time would place an unreasonable financial burden on customers, so resources had to be focused first on meeting the mandated treatment plant obligations.

Connecting to the Hyde Park Regional Water System eliminates the need to replace the Quaker Hill treatment plant entirely. This creates a **long-term regional water supply asset with an expected life of 100 years**, financed over 30 years. By avoiding the cost of maintaining and repeatedly rebuilding a small stand-alone plant, future resources can be directed to the next priority, which is upgrading local water mains and restoring roads.

In other words, the interconnection does not delay distribution system improvements. It makes them financially achievable by removing the need to invest millions of dollars in a treatment plant that would otherwise have to be replaced again in the future.

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January 22, 2026
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Audience Questions

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January 22, 2026
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830 Violet Ave, Hyde Park, NY

Is there anything I can do to reduce my exposure right now?

U.S. EPA resources on home drinking
water filters certified to reduce PFAS



https://bit.ly/PFAS_Filter_Info

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January 22, 2026
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