



Westchester Joint
Water Works

Proposed Land Swap Rye Lake Water Filtration Plant

Westchester County Board of Legislators
Joint Committee Meeting

- Public Works & Transportation
- Environment, Energy & Climate

September 26, 2023



Westchester Joint Water Works Overview



- Westchester Joint Water Works (WJWW) is a non-profit public benefit corporation consisting of the member municipalities of the Village of Mamaroneck, Town of Mamaroneck, and the Town/Village of Harrison. Formed in 1927, for the purpose of operating a combined municipal water works system.
- WJWW supplies water on a retail basis to its member municipalities and to portions of the City of Rye and the City of New Rochelle along with wholesale water sales to the Village of Larchmont and Veolia Water Westchester, which provides water to the City of Rye, the Village of Rye Brook, and the Village of Port Chester.

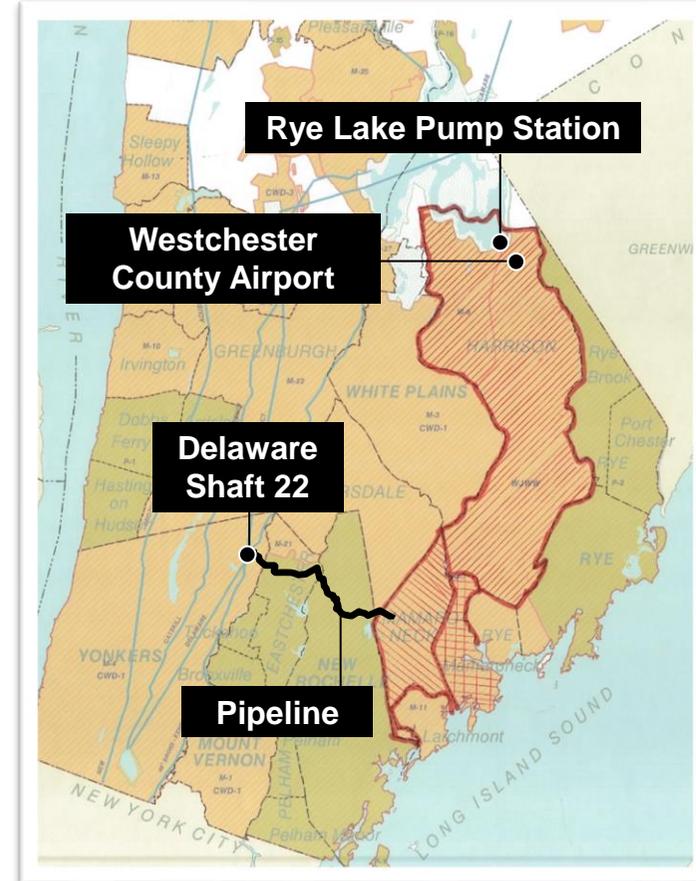
Up to 100,000 County residents depend upon WJWW to provide clean, safe drinking water and it is committed to proactively meeting environmental challenges such as climate change that threaten the water security of its constituents.



Water Sources & Service Area

**WESTCHESTER JOINT
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- WJWW is supplied by the New York City Department of Environmental Protection (NYCDEP) water system at Rye Lake (Kensico Reservoir) and at Shaft 22 of the Delaware Aqueduct.
- Over the past five years, improvements have been made to facilitate distribution of water from WJWW's Rye Lake source to the entire WJWW water distribution system.
- WJWW's Rye Lake source supplied up to 85% of total water distributed throughout WJWW's distribution system during the months of August and September 2023.



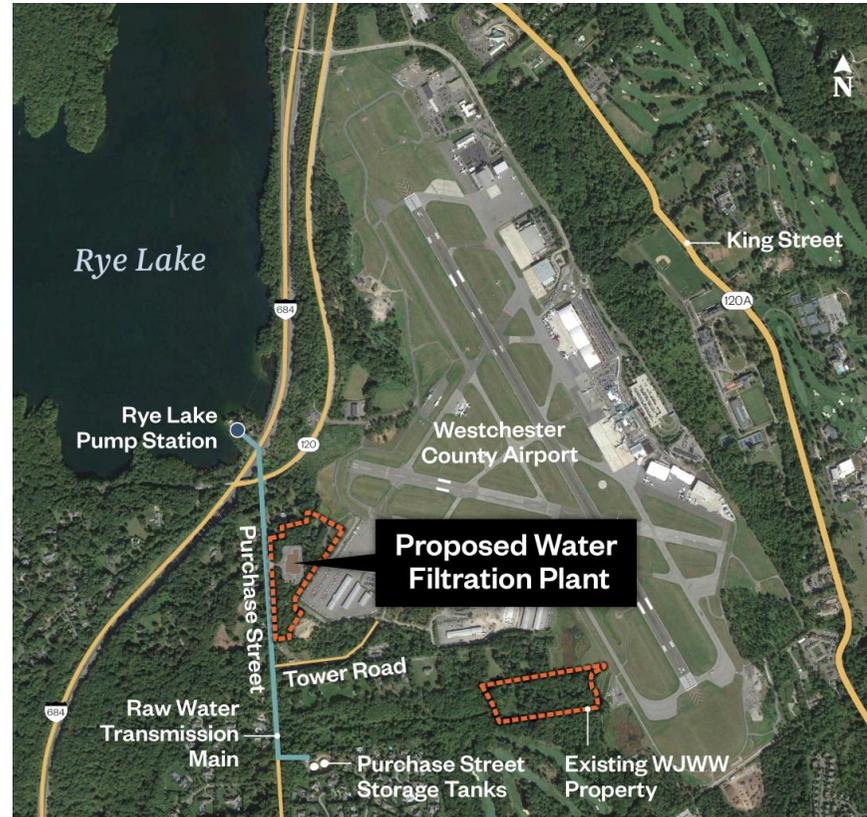
Urgent Matter of Public Health



- Longstanding Non-Compliance with the Surface Water Treatment Rule (SWTR) since the late 1990s and Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) since 2014, relative to WJWW's Rye Lake source.
- Violations of the Maximum Contaminant Level (MCL) for Haloacetic Acids (HAA5) in 2019.
 - The United States Environmental Protection Agency (USEPA) has determined that the MCL for HAA5 provides for increased public health protection against the increased risks for cancer and reproductive and developmental health effects from long-term exposure to high levels of HAA5.
 - In immediate response to these MCL violations, WJWW began an aggressive water distribution system flushing program that wastes approximately 80 million gallons of water per year at a cost of close to \$500,000 per year to water consumers. These measures remain in place.
 - Following these violations, the USEPA asserted that construction of the Filtration Plant in compliance with the SWTR could have prevented these HAA5 violations.

Proposed Land Swap

13.4-acre County Airport parcel
in exchange for 13.4-acre
WJWW parcel



History of WJWW's Efforts to Build the Filtration Plant



- In 1994, WJWW retained Hazen and Sawyer to prepare a site evaluation report to identify possible locations for the filtration plant. The County Airport site was determined to be the overall best location for the facility.
- The WJWW site was evaluated as an alternative, but it was deemed less suitable because it was zoned for residential use.
- At that time, Westchester County declined to make the Airport parcel available.
- In 1998, WJWW acquired a 39-acre parcel which included the WJWW site.
- In 2000, WJWW sold approximately two-thirds of the 39-acre parcel to Sylvan Development, retaining the current WJWW parcel and an easement running from Purchase Street to the WJWW parcel.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- On June 9, 2004, the NYS Supreme Court issued a permanent injunction requiring WJWW to build the Filtration Plant to bring its system into compliance with the NY State Sanitary Code. The injunction remains in effect today.
- After the Court ruling, WJWW pursued an unsuccessful appeal and an unsuccessful petition to the NYSDOH to forgo construction of a costly filtration plant in favor of a less costly ultraviolet treatment facility.
- Thereafter, WJWW prepared to proceed with construction of the Filtration Plant on the WJWW parcel, which was identified as exempt from State Environmental Quality Review Act (SEQRA) pursuant to the Type II category.
- WJWW submitted applications for site plan approval and a special exception use permit to the Harrison Planning Board, which issued a negative declaration under SEQRA and granted certain approvals on June 21, 2005.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- Site preparation at the WJWW parcel began on August 29, 2006, but all construction was halted on September 8, 2006, following a raft of lawsuits brought by Sylvan Development challenging different permits and approvals for the proposed facility at the WJWW parcel and the NYS Supreme Court issued a stay.
- As a result, the Planning Board rescinded its prior negative declaration and approvals, determined that it would serve as the lead agency for the SEQRA review, and issued a positive declaration under SEQRA on June 11, 2007, thereby requiring preparation of an environmental impact statement (EIS).
- Westchester County again declined to make the Airport parcel available.
- WJWW completed its obligations as the applicant for full compliance with the SEQRA review process by submitting a proposed Final Environmental Impact Statement (FEIS) to the Planning Board in July 2008.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- Yet, the Planning Board never completed the SEQRA process by never formally adopting the FEIS for WJWW's proposal to build on the WJWW parcel. Without completion of the SEQRA review process, no further action could be taken to construct the Filtration Plant at that location.
- In 2008-2010, WJWW explored partnering on a County-led regional water treatment and conveyance alternative, but ultimately, the other regional water utilities involved pursued options that did not provide treated water to WJWW's system.
- WJWW then investigated the viability of constructing a pipeline for the conveyance of treated water from NYC's Shaft 20 in Yonkers. In 2016, the alternative was rejected by WJWW due to its exorbitant cost and the identified adverse environmental impacts.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- Thereafter, in 2019, as a result of further discussions between WJWW and the County, WJWW learned that the County would consider the land swap by which WJWW would acquire 13.4-acre County parcel in exchange for the 13.4-acre WJWW parcel, subject to compliance with SEQRA and other conditions.
 - WJWW has spent almost four years and \$7 million to date preparing engineering plans, the SWPPP and the required SEQRA documents to move the filtration plant forward at the County parcel.
- On January 28, 2020, WJWW established itself as lead agency and notified any involved or interested agencies according to the requirements of SEQRA. The New York State Department of Environmental Conservation (NYSDEC) confirmed WJWW as lead agency on March 10, 2021.
- On December 22, 2021, a Memorandum of Understanding was executed between Westchester County and WJWW to exchange in fee title of equal sized and valued parcels of property (land swap).
- On October 12, 2022, WJWW adopted the Findings Statement for the Rye Lake Water Filtration Plant which completed the SEQRA process.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- On September 30, 2022, in a letter to the County, the FAA determined that the proposed land swap “would have no material impact on aircraft operations, at, to, or from the airport; would not affect the safety of people and property on the ground adjacent to the airport as a result of aircraft operations; and would not have an adverse effect on the value of prior Federal investment ... [and therefore] the FAA does not have the authority to ... disapprove ... the proposed project.”
- On May 26, 2023, the New York City Department of Environmental Protection (NYCDEP) approved the Stormwater Pollution Prevention Plan (SWPPP), confirming that the construction of the Water Filtration Plant at the County parcel will not harm the Kensico Reservoir, will have no stormwater impact on downstream properties, and will comply with stringent NYCDEP standards for the protection of Kensico Reservoir and its watershed.

History of WJWW's Efforts to Build the Filtration Plant (cont'd)



- On June 27, 2023, the New York State Supreme Court for Westchester County dismissed the only lawsuit that was filed to challenge the proposal to locate the Filtration Plant on the County parcel. The Court upheld WJWW's determination that, from an environmental perspective, the County parcel is the best location for the Filtration Plant. The Court also rejected petitioner's contention that the Filtration Plant would result in significant noise impacts, rejected petitioner's contention that the Filtration Plant would result in significant historic and archaeological impacts, rejected petitioner's contention that the Filtration Plant would result in significant adverse visual impacts, and rejected petitioner's contention that the Filtration Plant would result in significant growth-inducing impacts, more specifically that the development of the Filtration Plant upon the County parcel might impact the County's potential plan for growth of the airport in the future.
- The Court found that the record amply demonstrated that WJWW undertook the requisite hard look at feasible alternatives to the County parcel for the location of the Filtration Plant, and further provided a reasoned elaboration for its conclusion that the development and operation of the Plant upon the County parcel would be a superior choice when compared against the WJWW parcel.

State Environmental Quality Review (SEQR) – 2020 - 2023



- On January 28, 2020, WJWW established itself as lead agency and notified any involved or interested agencies according to the requirements of SEQRA. The NYSDEC confirmed WJWW as lead agency on March 10, 2021.
- On March 23, 2021, WJWW released a Public Notice of Positive Declaration, made a Draft Scope for the Draft EIS (DEIS) available for review by the public and announced a date for a Public Scoping Session.

On March 24, 2021, WJWW launched a website wjwwfiltration.org to educate the public about the project and to facilitate public review of SEQRA documents and for receipt of comments.

State Environmental Quality Review (SEQR) – 2020 - 2023 (cont'd)



- On October 26, 2021, WJWW released a Final Scope for the DEIS.
- On April 12, 2022, WJWW deemed a DEIS for the Rye Lake Water Filtration Plant as complete and released it to the public for review and comment.
- On May 25, 2022, WJWW held a Public Hearing on the DEIS for the purpose of taking public comments, with comments being accepted through June 6, 2022.
- On September 28, 2022, WJWW deemed a FEIS for the Rye Lake Water Filtration Plant as complete and released it to the public for review and comment.
- On October 12, 2022, WJWW adopted the Findings Statement for the Rye Lake Water Filtration Plant.

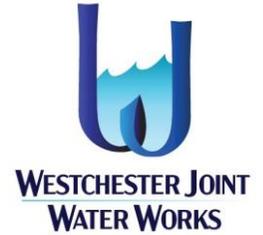
SEQR Findings – 2020 - 2023



SEQR Findings weighed the following considerations favoring the County Airport parcel over the WJWW parcel

- The County parcel is in a business (non-residence) zoning district, while the WJWW parcel is in an R-2, One-Family Residence zoning district. A key impediment to the Planning Board's completion of action on the prior SEQRA review to build the Filtration Plant on the WJWW parcel was the perceived conflict and concerns regarding project consistency with surrounding residential land uses given that the WJWW parcel is situated in the R-2 One-Family Residence district.

SEQR Findings – 2020 - 2023 (cont'd)



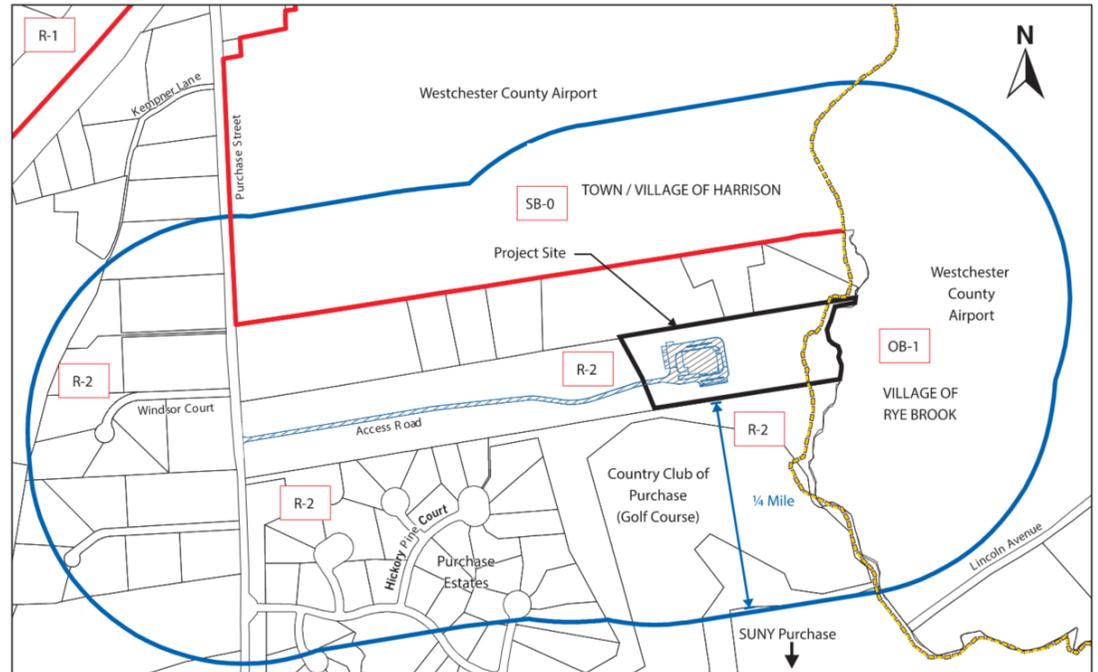
SEQR Findings weighed the following considerations favoring the County Airport parcel over the WJWW parcel

- The County parcel is bordered to the northeast, east, southeast and south by airport-related uses. Within a ½-mile from the County parcel there are several water supply facilities, including the Rye Lake Pump Station and the Purchase Street Water Storage Tanks, all owned and managed by WJWW. The Rye Lake water source is also within a ½ mile from the County parcel. Interstate 684 is approximately 500 feet from the County parcel, and Westchester County Airport is contiguous to the County parcel. Development of the Filtration Plant on the County parcel would be consistent with the surrounding utility and transportation facilities.

SEQR Findings – 2020 - 2023 (cont'd)

SEQR Findings weighed the following considerations favoring the County Airport parcel over the WJWW parcel

- By contrast, the WJWW parcel is adjacent to the airport only on its narrow eastern lot line; it is otherwise surrounded by land zoned for residential use. The WJWW parcel is adjacent to existing residential uses to the north and a golf course to the south and adjoins the presently undeveloped but approved Sylvan Development residential subdivision to the west, with access to Purchase Street only through this subdivision via a residential side street. The WJWW parcel is surrounded by fewer utility and transportation land uses and more residential land uses than the County parcel.



SEQR Findings – 2020 - 2023 (cont'd)

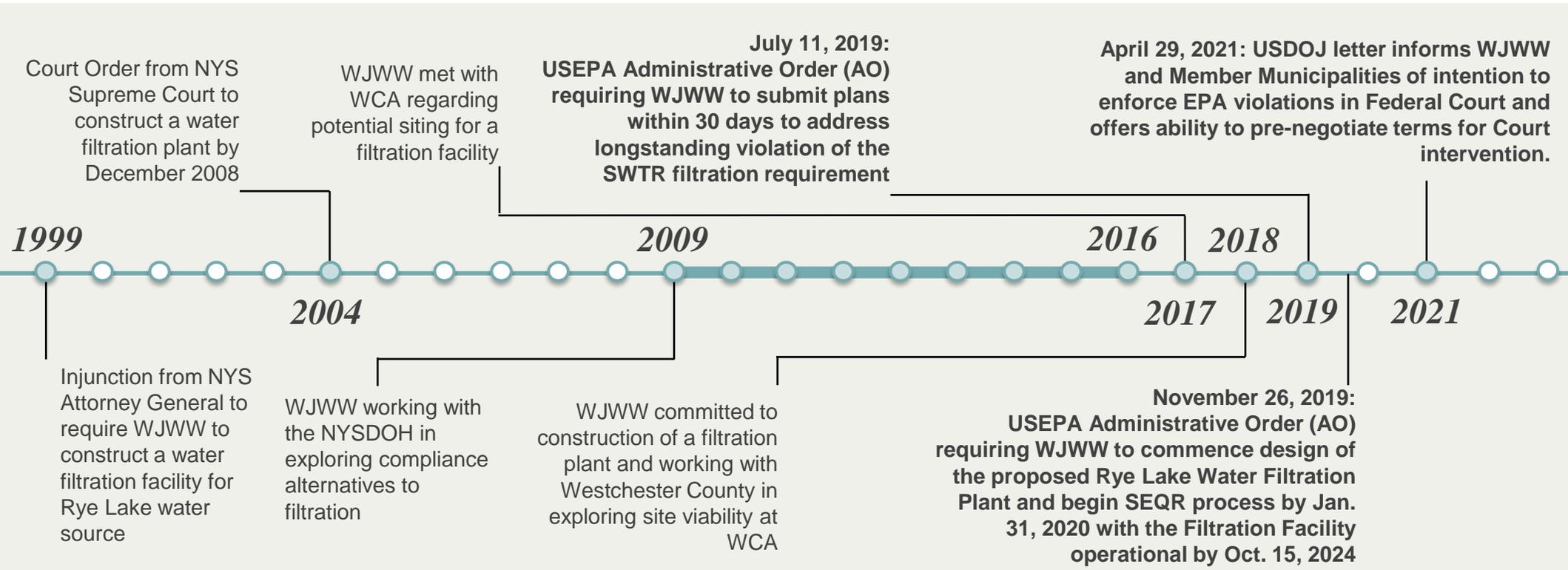
SEQR Findings weighed the following considerations favoring the County Airport parcel over the WJWW parcel

- The construction of the facility on the WJWW parcel would require disturbance of regulated freshwater wetlands. By contrast, the construction of the Filtration Plant on the County parcel avoids any disturbance of wetlands.
- The construction of the facility on the WJWW parcel would involve more extensive construction to provide the requisite utility connections, because the WJWW parcel is not situated proximate to existing utility lines. All utilities – and a new water main – would have to run along the proposed 2,700-foot long access road within the easement from Purchase Street. The County parcel has more convenient connections to existing utilities and the existing water main beneath Purchase Street due to its location with frontage on Purchase Street.

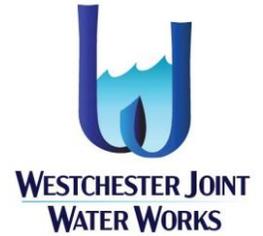


Enforcement Action History

New York State Department of Health (NYSDOH)
United States Environmental Protection Agency (USEPA)
United States Department of Justice (USDOJ)



Long-Overdue Water Filtration Plant Project



- WJWW has spent almost four years and \$7 million to date preparing engineering plans, the SWPPP and the required SEQRA documents to move the filtration plant forward at the County parcel.
- The original projected cost of the filtration plant in 2019 was \$108 million. Due to the unnecessary delay of the SEQRA process, timing of the land swap, and associated permitting, the construction schedule has been pushed back from 2024 to 2027. The resulting impacts of inflation and supply chain issues have raised the projected cost of the project to \$138 million which does not include the increased cost of financing driven by higher interest rates.

Further delaying the filtration plant construction not only increases the potential for adverse impacts to public health and safety, it also results in significantly greater costs.

Any Further Delays



- Will put the health and safety of up to 100,000 Westchester County residents potentially at risk.
- Will cause the public via WJWW, to potentially incur tens of millions of dollars in fines. Negotiations ongoing with US Department of Justice and NYS Attorney General with goal to reach omnibus settlement of all filtration-related issues.

Haloacetic Acids (HAA5) Formation

“Disinfection byproducts (DBPs) can form in water when disinfectants used to control microbial pathogens combine with naturally occurring materials found in source water.”
- USEPA

Regulated DBPs:

- Total Trihalomethanes (TTHM)
- Haloacetic Acids (HAA5)

Filtration is a proven method to remove organic matter before chlorination to reduce the formation of disinfection byproducts

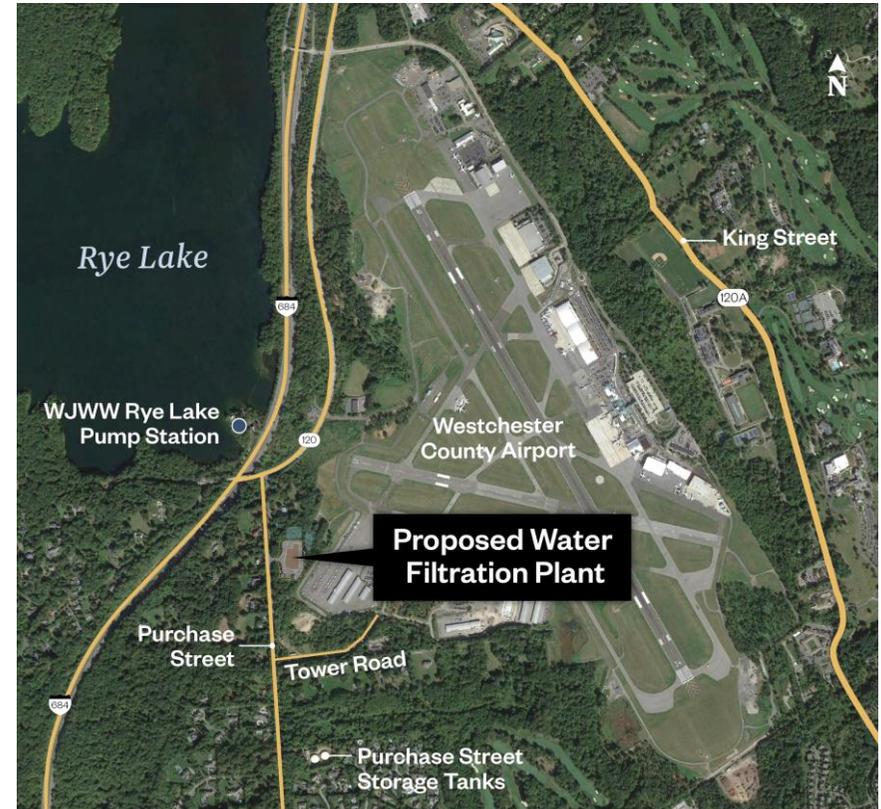


Organic matter in source water:
Dissolved and particulate matter resulting from decaying vegetation and bacterial growth

Project Background and Need

The project is necessary to maintain the health and safety of WJWW customers; to comply with a USEPA Administrative Order, a NYS Supreme Court Order and the USEPA and NYS Sanitary Code surface water filtration requirements

- A new 30-mgd dissolved air flotation/filtration (DAFF) water filtration plant will be constructed



Proposed Project Siting

Site was chosen due to:

- Proximity WJWW's infrastructure including:
 - Rye Lake Pump Station
 - Purchase Street Storage Tanks
 - Purchase Street Booster Station
 - Existing Raw Water Transmission Main
- Harrison Zoning and Buffers
 - Harrison Zoning: Special Business District (SB-0)
 - Maintain 100-ft buffer to Purchase Street with trees
- Originally recommended for siting ~30 years ago

Building Size: Approximately 1 acre

Property Size: 13.4 acres



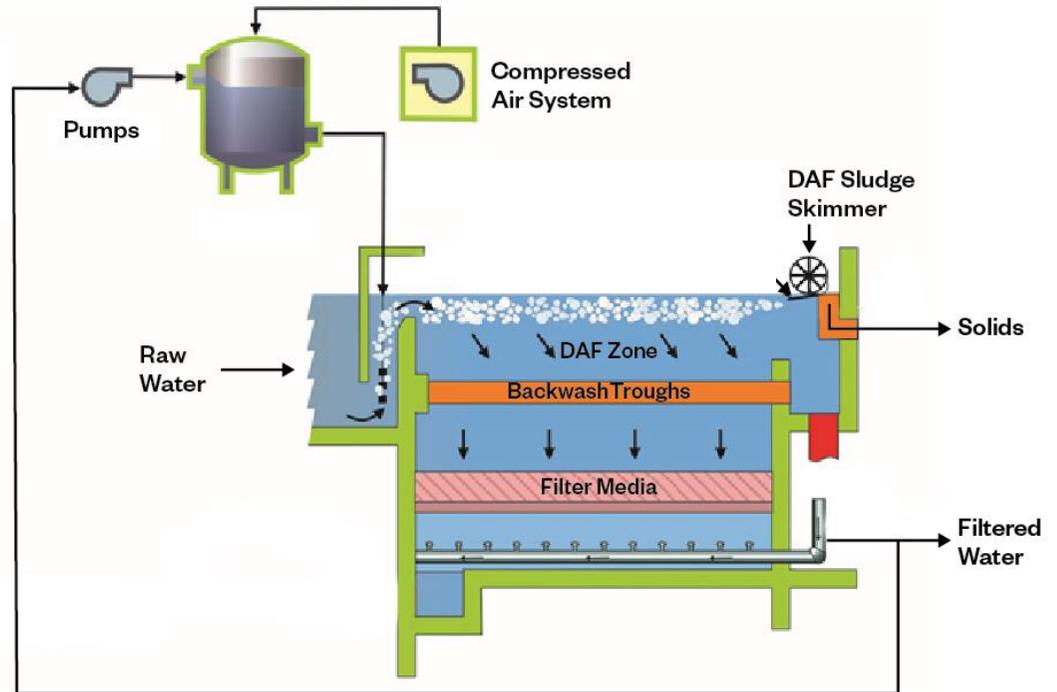
Proposed Rye Lake Water Filtration Plant

Treatment Selection

- Dissolved Air Flotation/Filtration (DAFF) treatment
- Used widely throughout the Northeast on similar water supplies

Capacity

- 30 million gallons per day

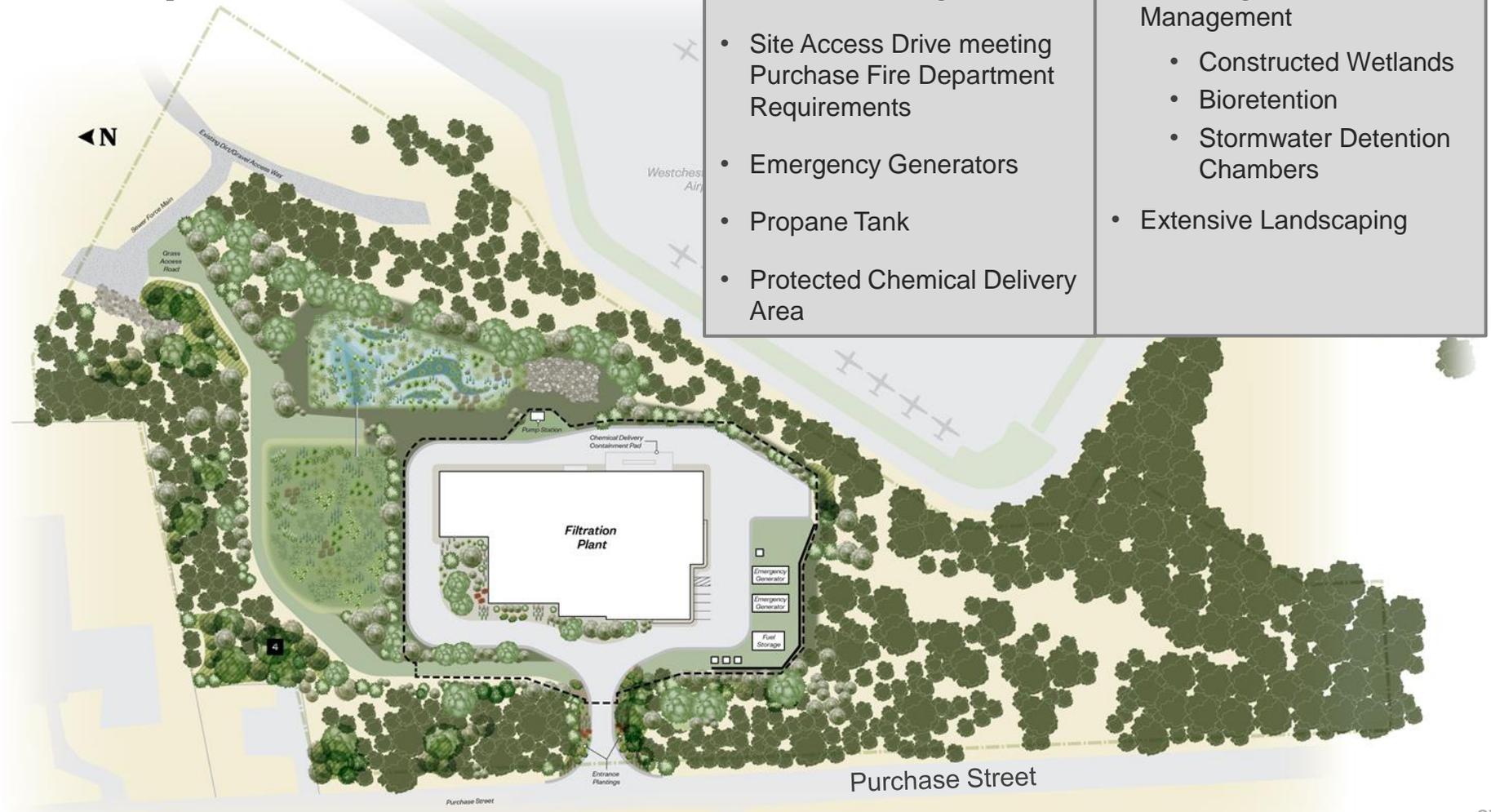


Site Overview



Lot Area	13.4 acres
Finished Site Impervious Area	2.4 acres
Building Footprint	37,360 sf (0.86 acres)
Building Lot Coverage	6.5%
Building Height	30 ft*
Front, Side and Rear Yards	> 100 ft
<p>Zone: SB-0 (Special Business District). WJWW properties allowed by special exception use permit.</p> <p>*Building height matches requirements of neighboring residential district.</p>	

Site Components



- Filtration Building
- Site Access Drive meeting Purchase Fire Department Requirements
- Emergency Generators
- Propane Tank
- Protected Chemical Delivery Area
- Multi-stage Stormwater Management
 - Constructed Wetlands
 - Bioretention
 - Stormwater Detention Chambers
- Extensive Landscaping

Community Character and Visual Impacts



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- Buildings comply with zoning
- Architectural elements chosen for their aesthetic qualities:
 - Partial stone veneer resembles stone used in walls along Purchase Street
 - Muted colors blend with surroundings
 - Faceting of building sections
 - Gabled roof
 - Front façade windows provide visual interest
 - Expansive buffer of natural trees and vegetation



West Elevation



South Elevation



East Elevation



North Elevation



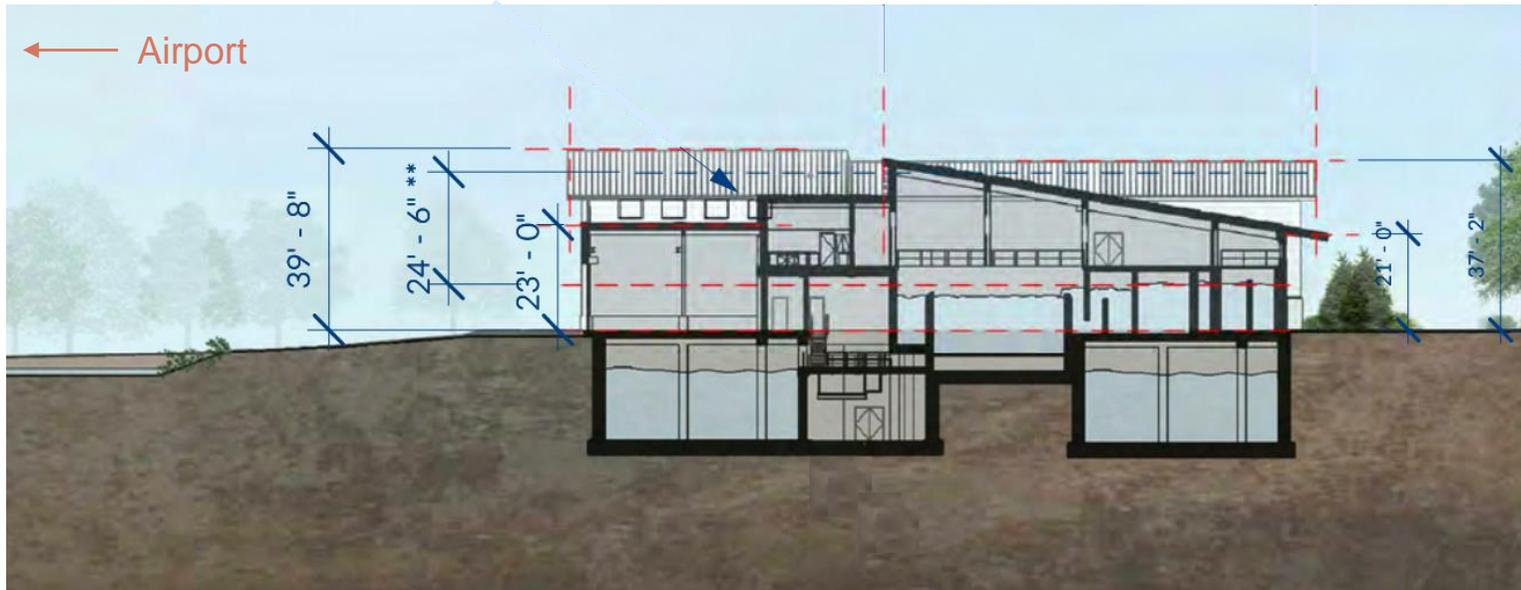
Aerial



View from Purchase Street

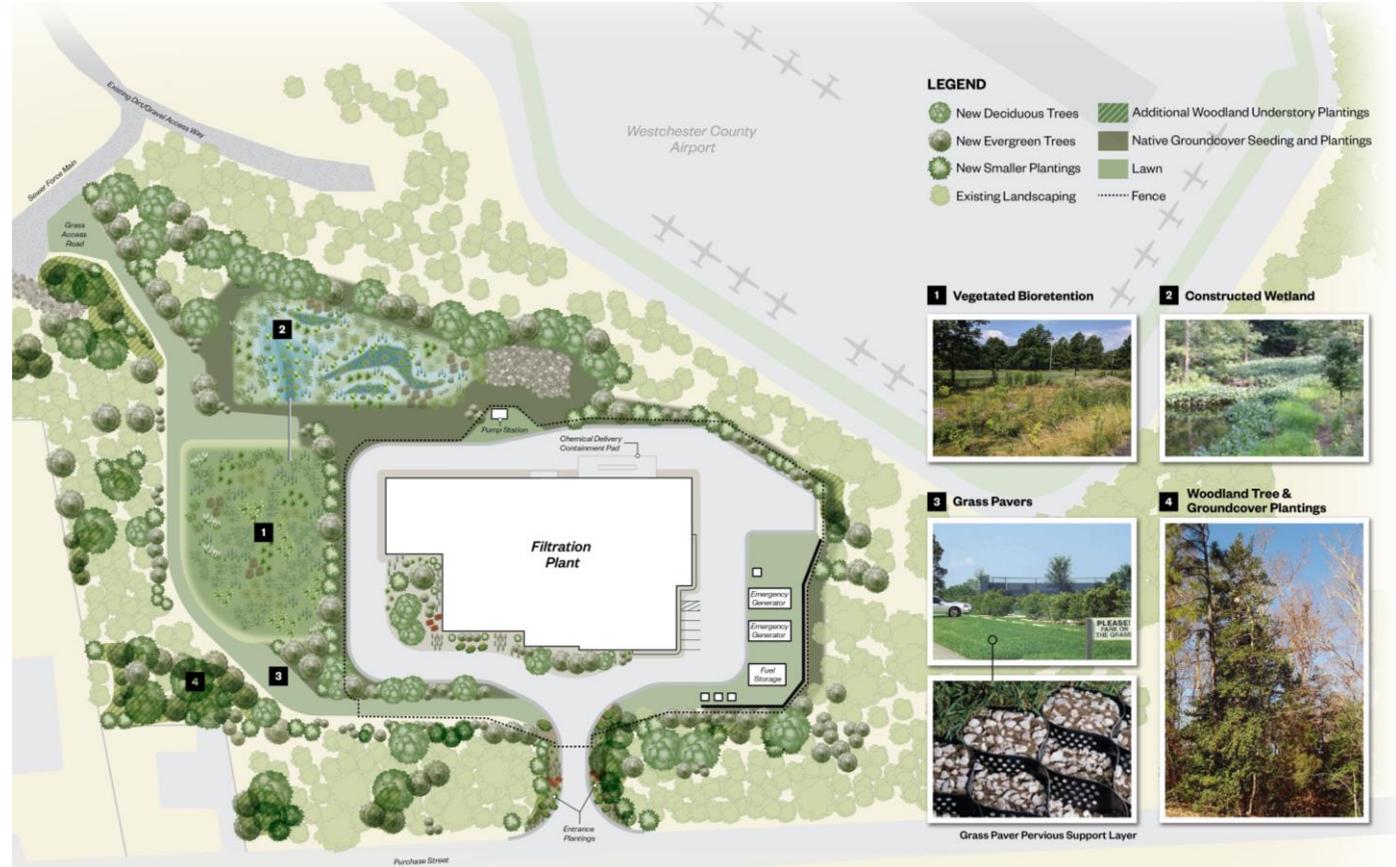
Community Character and Visual Impacts (cont'd)

Building Profile



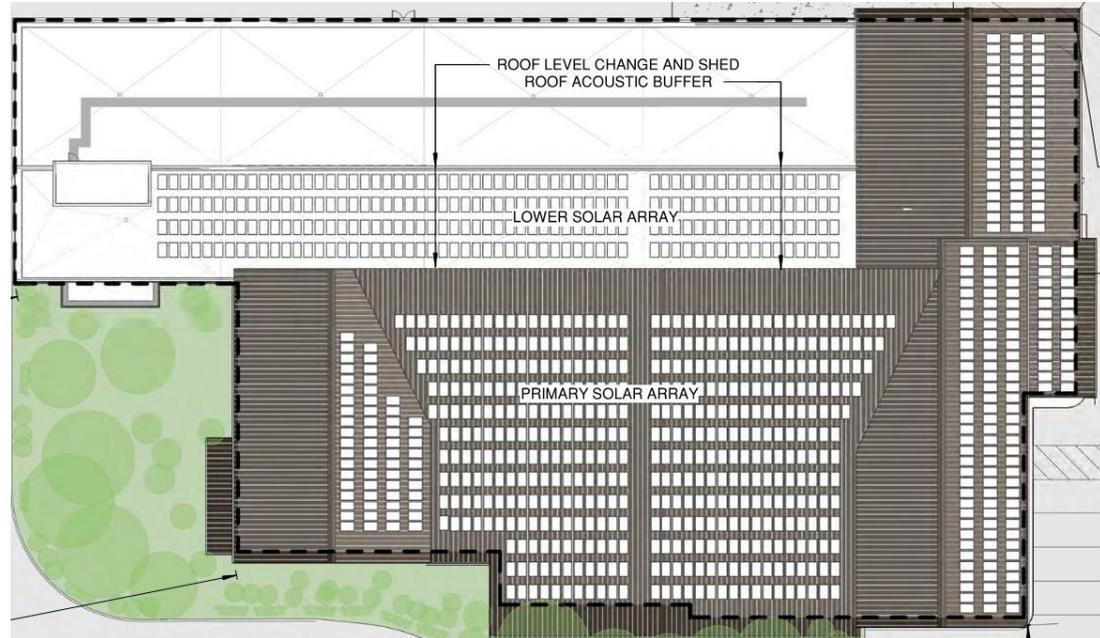
Landscaping and Lighting

- Approximately 300 native trees proposed for replanting
- Existing invasive ecosystem restored with native plantings
- Minimum lighting for safety
 - Walkways and entrances
 - Shielded, downcast
 - Motion detecting



Other Environmental Considerations

- Measures to avoid or reduce impacts to climate change:
 - Photovoltaic arrays on roof
 - Lighting energy conservation methods
 - Constructed wetlands
 - Natural lighting
 - Vegetated access where possible
 - Planting native species



Wetlands, Watercourses and Floodplains



- Wetland delineation performed in 2021
- No wetland disturbance
- Minimal disturbance to wetland adjacent area
- No floodplain impacts