

WESTMINSTER'S REPLACEMENT DRINKING WATER TREATMENT FACILITY EVALUATION, OVERVIEW, AND OPTIONS

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**Purpose: City Council Discussion and Direction on
Water Treatment Facility Options and Land Acquisition**

THE CITY'S WATER TREATMENT SYSTEM

The City has two water treatment plants:

- Semper
- Northwest

Thorough condition assessment
of Semper was needed



Semper Water Treatment Plant, originally constructed in 1969

BUILT IN 1969, SEMPER WATER TREATMENT FACILITY TREATS UP TO 75% OF CITY'S WATER



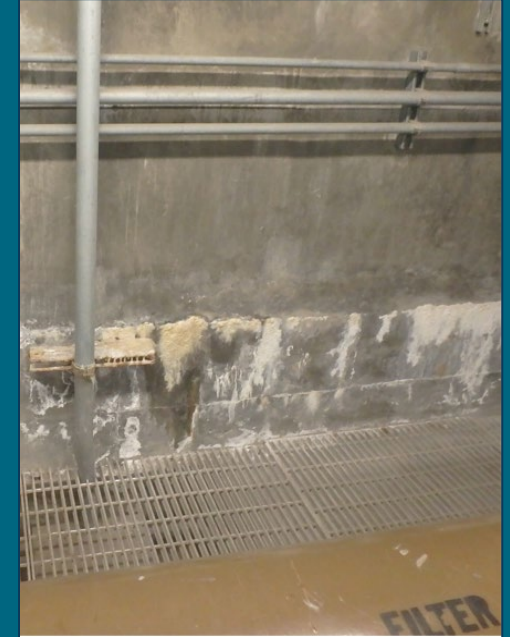
Rapid
Mixing



Mechanical
Flocculation



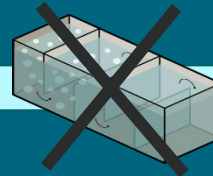
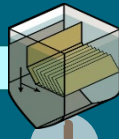
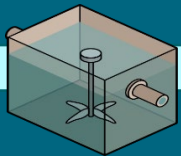
Sedimentation



Ozonation

Deep Bed
Filtration

Treat Emerging
Contaminants



Solids
Handling

Semper High
Service Pump
Station

WATER 2025

2015 – Initiated work to replace Semper

Resulted in the creation of the Water 2025 project

Water 2025:

- **Maximum capacity identified at 60 MGD**
- **Best location identified at Westminster Boulevard**

EVALUATION OF ALTERNATIVES

Community concerned about affordability of Water 2025

- **November 29, 2021 – Work stops in order to ensure affordability while maintaining health and safety**
- **Over the past year - Alternative options developed and evaluated**
 - **Water treatment capacity evaluated**
 - **Locations evaluated**
 - **Supporting infrastructure needs evaluated**

OVERALL WATER DEMANDS ARE DECREASING AND WATER TREATMENT CAPACITY CAN BE REDUCED

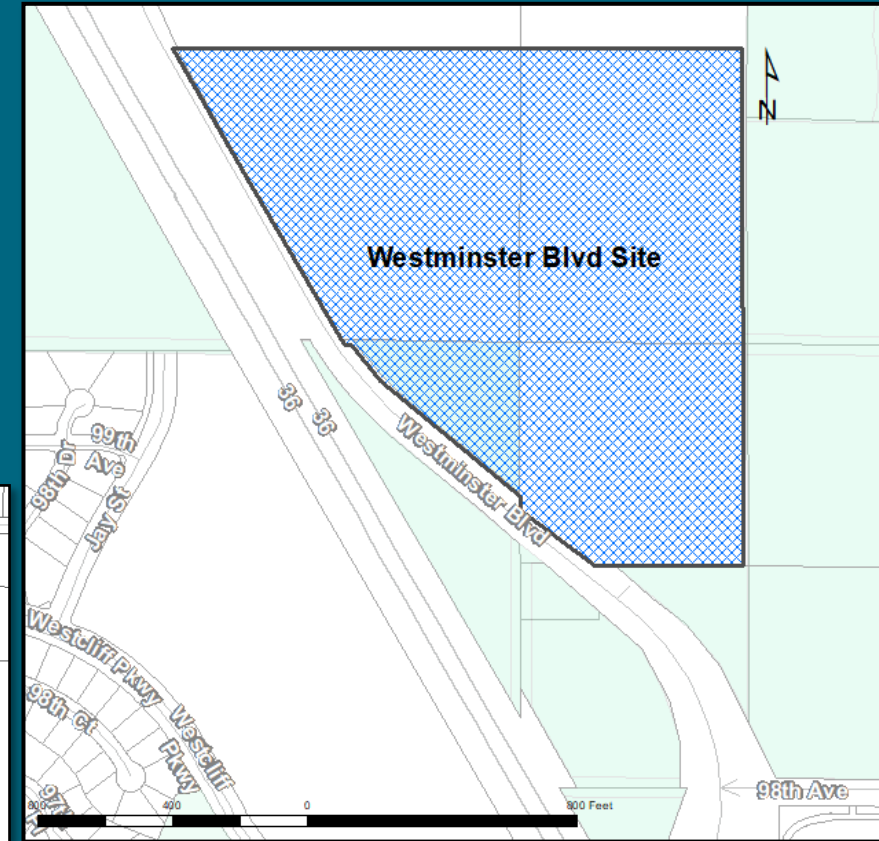
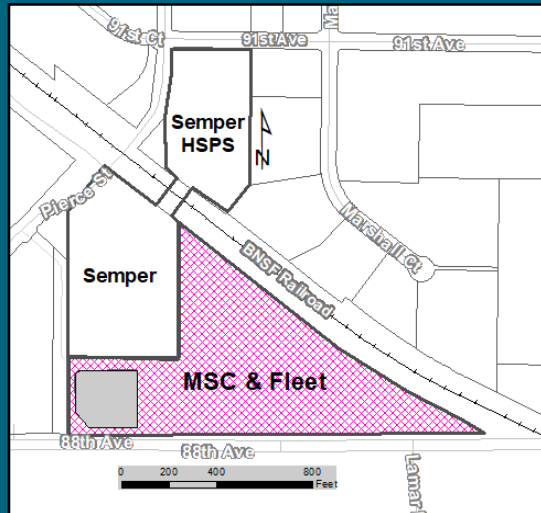
A thorough analysis of the City's water treatment capacity needs during year-long evaluation of original proposal and alternatives

- Established new water treatment maximum capacity at 44 MGD**
- Updated 2015 analysis with more up-to-date water consumption data**
- The updated demand projection reduced maximum capacity by 25% from 60 million gallons per day (MGD) to 44 MGD**

FOUR RIGHT-SIZED OPTIONS AT 44 MGD

Original WATER 2025 proposal called for 60 MGD facility





















1. Upgrade Semper on Semper Site
2. New Facility on Alternate Land
3. New Facility on MSC/Fleet
4. New Right-sized Facility at Westminster Blvd site



CITY COUNCIL'S EVALUATIVE CRITERIA

- **Leverage existing infrastructure**
 - **Utilize remaining life in Semper and other infrastructure**
 - **Phase and limit construction of large infrastructure**
- **Address water quality challenges such as wildfire events and future regulations**
- **Allow for flexibility for future replacement needs**
- **Ensure infrastructure is robust**

COMPARISON OF OPTIONS

Existing Semper and Four New Treatment Facility Options	Leverage Existing Infrastructure	Wildfire WQ and Future Regulations	Flexibility for Future Replacement	Robust Infrastructure	Updated Cost *Class 5 Est. -30%/+50%	Ozonation (Enhanced water treatment due to wildfire)
WATER 2025 Project at Westminster Blvd					\$304M	Included [\$23M]
1. Upgrade Semper on Semper Site					\$172M*	\$32M
2. New Facility on Alternate Land					\$201M*	\$18M
3. New Facility on MSC/Fleet Site					\$286M*	\$18M
4. Right-sized Facility at Westminster Blvd					\$196M	\$15M

Low Score

Mid-Range Score

High Score



Options 1, 2, and 4 are supported within the current rate structure approved by City Council October 24, 2022.

NEXT STEPS

For Option 4:

Moving forward with the land acquisition and appeal will require payment of funds for the entire cost less the money already paid.

- There would be two City Council readings for appropriation of funds: January 23rd and February 13th.**
- City Council can vote down the appropriation of funds on February 13th, at the second reading after public session should City Council decide not to proceed.**