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October 6, 2025

Ms. Renuka Mohammed
Utilities Director
City of Pompano Beach
1205 N.E. 5th Avenue
Pompano Beach, Florida 33060

Subject: Summary of Revisions – Planning Document | DW0624A City of Pompano Beach Emerging Contaminants Water Treatment Plant Upgrades Revised – July 2025

Ms. Mohammed:

As requested, the following is a summary of the revisions to the Planning Document for the City of Pompano Beach Emerging Contaminants Water Treatment Plant Upgrades Project Revised – July 2025:

1. **SRF Comment:** *I was not able to find a figure or a map that shows the proposed projects clearly on the map, specially the DIW # 2. I found the figure 3-3 but it doesn't show the proposed project on it.*

   MBC Response: Figure 3-1 was revised to present proposed project locations (PDF page 23/489).

2. **SRF Comment:** *The attached signed resolution should be replaced with the draft resolution in the facility plan...*

   MBC Response: Draft resolution was replaced with the signed resolution (PDF page 482/489).

3. **SRF Comment:** *The last page of the attached Business Plan (Certification) for drinking water projects should be signed by the chief financial officer or the authorized representative…*

   MBC Response: Executed certification was inserted (PDF page 267/489).

It is important to note these revisions were necessary for the construction portion of the Phase 1: Deep Injection Well IW-2 and Buildout of the Existing Nanofiltration Facility Projects to be accepted for the August 2025 priority list meeting and were made based on comments provided by the State Revolving Fund (SRF) Project Manager that was assigned to the projects in June 2025. The original planning document was reviewed and accepted by a different, former, SRF Project Manager in September 2024.

Please do not hesitate to contact me if you have any questions, comments, or concerns.

Sincerely,

Andrew H. Barba, P.E.
Senior Engineer
McCafferty Brinson Consulting, LLC
ab@mccaffertybrinson.com

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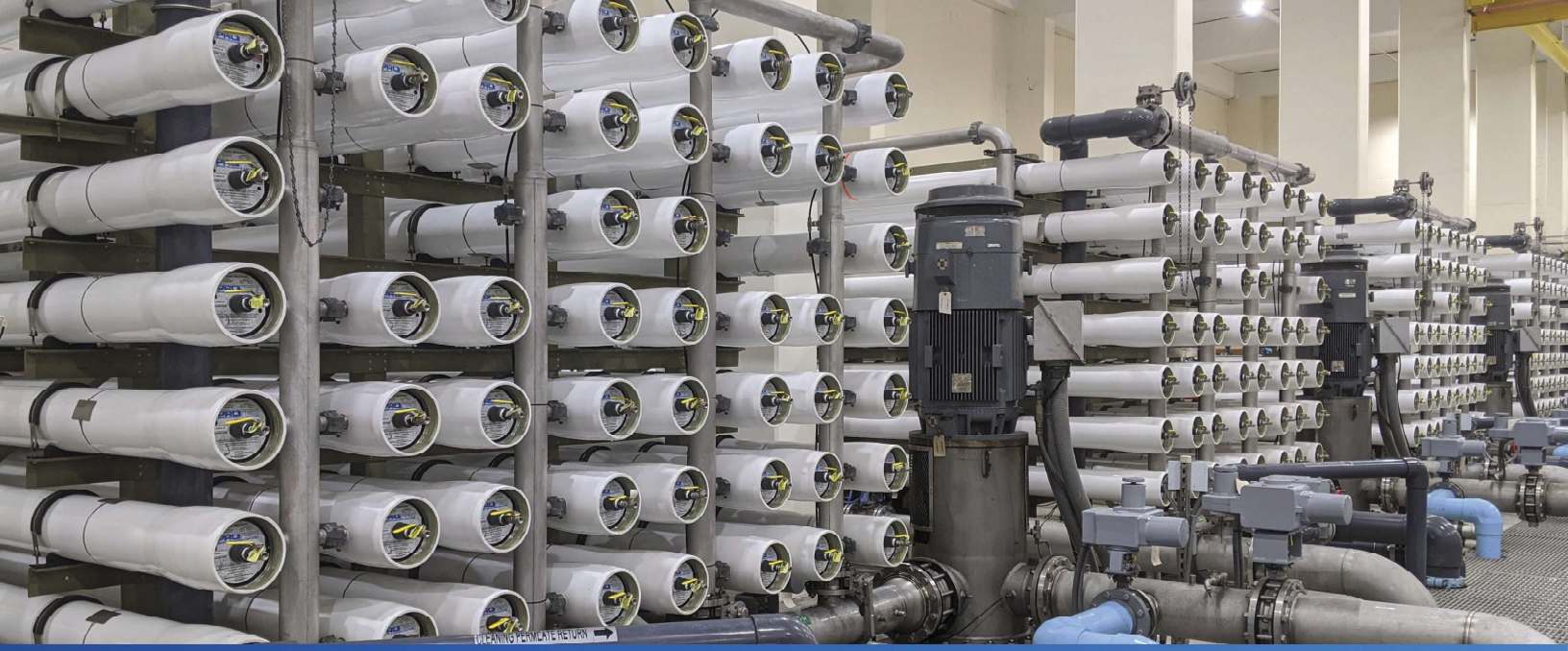

Planning Document:

City of Pompano Beach
Emerging Contaminants Water Treatment Plant Upgrades
DW0624A

June 2024
Revised - July 2025

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Florida's Warmest Welcome

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Water Treatment Plant Emerging Contaminants Upgrades

Planning Document

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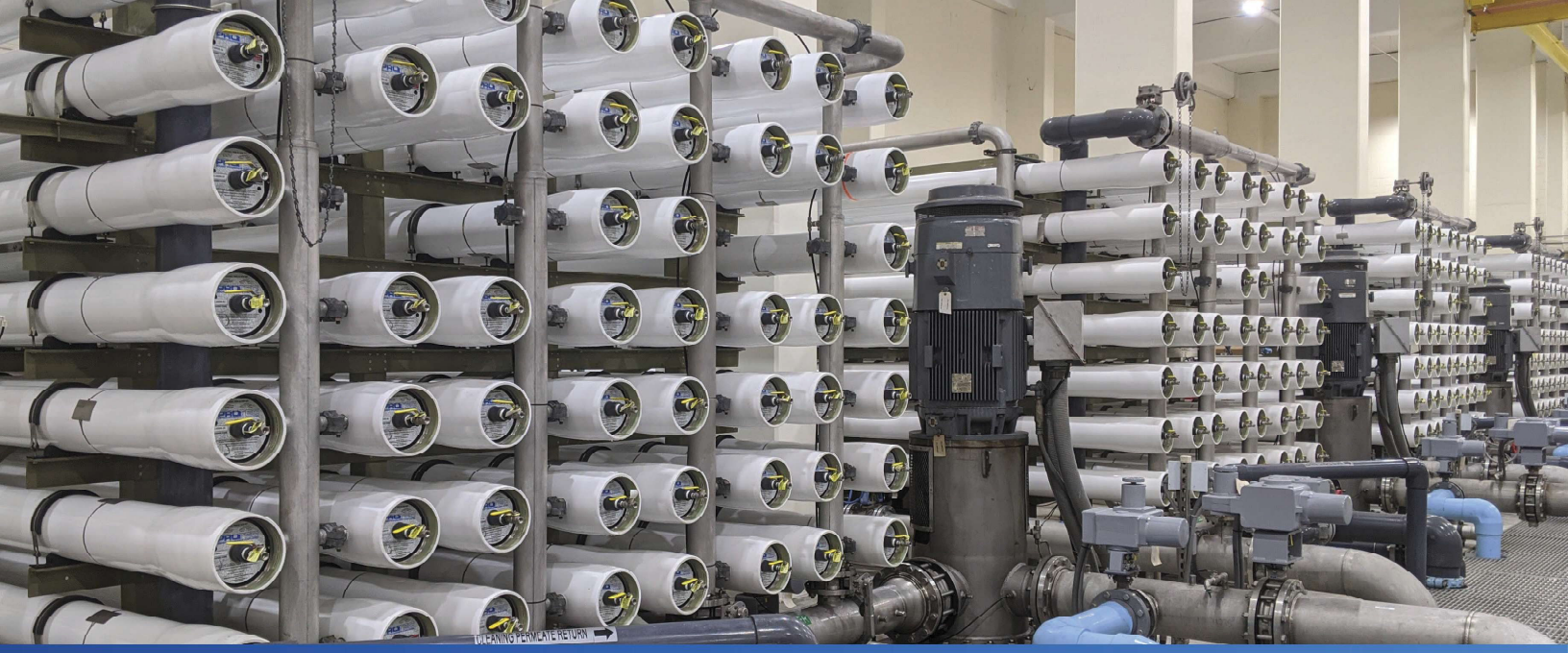

Planning Document:

City of Pompano Beach Emerging Contaminants Water Treatment Plant Upgrades
DW0624A

Attachment A: Water Facility Plan

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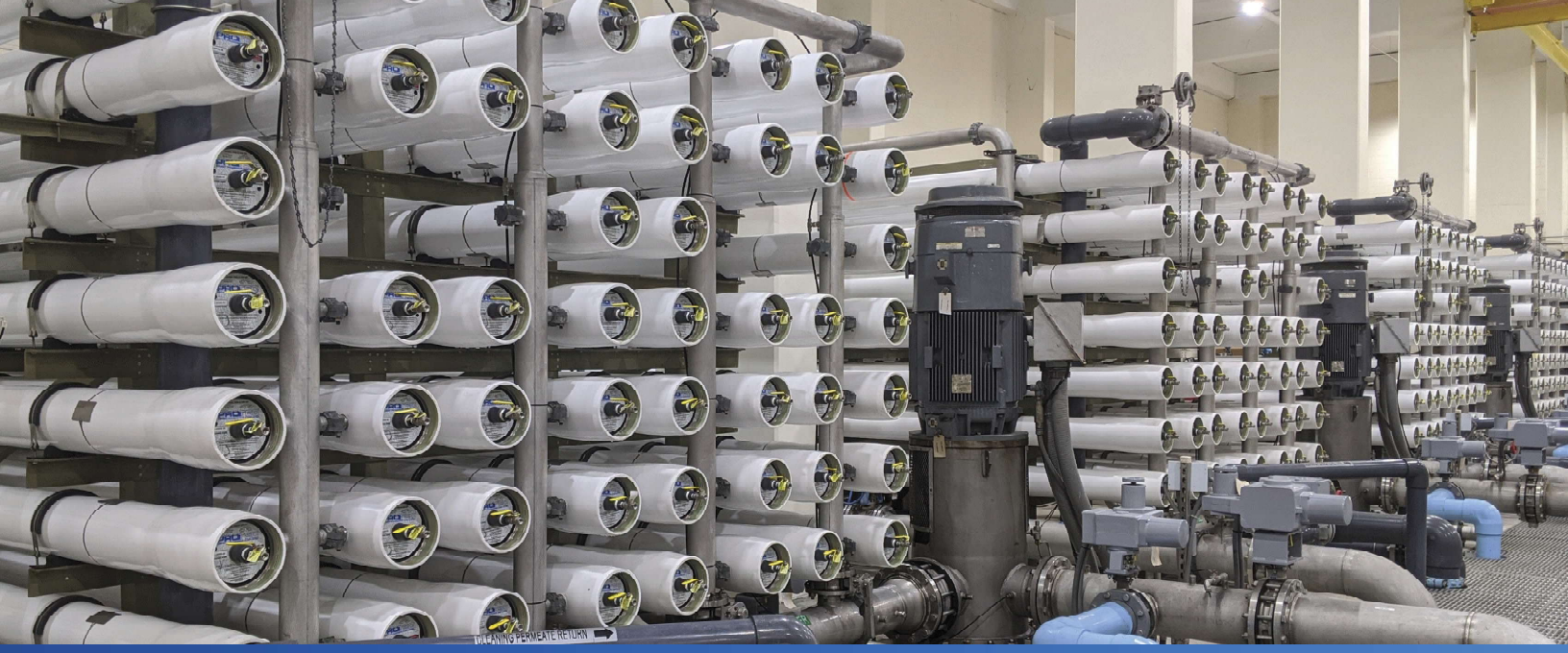

Water Facility Plan

City of Pompano Beach
Emerging Contaminants Water Treatment Plant Upgrades
DW0624A

June 2024
Revised - July 2025

pompano beach
Florida's Warmest Welcome

HILLERS ELECTRICAL ENGINEERING, INC.

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H2M

1.0 Summary of Findings and Recommendations

This Water Facility Plan (Plan) was prepared for the City of Pompano Beach (City) to meet the requirements of the Florida Department of Environmental Protection Drinking Water State Revolving Fund (FDEP DWSRF) loan funding of drinking water projects under the DWSRF Emerging Contaminants funding program. The City of Pompano Beach is located in Broward County and provides water, sewer, and stormwater services to customers within the City limits and some limited areas within the adjacent coastal communities of Lighthouse Point and Lauderdale-by-the-Sea.

This Plan considers alternatives for water treatment improvements at the existing water treatment plant (WTP) location at 1205 N.E. 5th Avenue in Pompano Beach, Florida. The boundaries of the WTP site are considered the planning area for this study. The City is fully developed with primarily residential properties mixed with commercial properties along with some agricultural, industrial, institutional, and government-owned properties. The City area includes approximately 15,736 acres of land which is divided into 30,011 individual properties. The City operates and maintains its own drinking water supply, treatment, and distribution systems to provide high quality drinking water meeting all current water quality standards to customers within the service area. Raw water supply facilities located within the service area, outside of the WTP site, include 24 raw water supply wells and well pumps and a raw water transmission pipping system conveying raw water to the WTP. The facilities located on the WTP site (planning area) include a 50 million gallon per day (mgd) water treatment plant consisting of conventional lime softening (LS) and nanofiltration (NF) membrane treatment, finished water storage, and a high service pumping system. The treated, finished water facilities located within the service area include a water transmission and distribution pipe network throughout the service area, as well as remote storage and booster pumping facilities.

On April 10, 2024, the United States Environmental Protection Agency (USEPA) released the final National Primary Drinking Water Regulation (NPDWR) for certain identified per- and polyfluoroalkyl substances (PFAS) with a compliance date for the PFAS NPDWR of 2029. The enforceable maximum contaminant levels (MCLs) for the PFAS constituents are as follows:

- PFOA: < 4.0 parts per trillion (ppt)
- PFOS: < 4.0 ppt
- PFHxS: < 10 ppt
- PFNA: < 10 ppt
- HFPO-DA: < 10 ppt
- PFNA, PFHxS, PFBS, HFPO-DA: < 1 Hazard Index.

The City's water sampling program has identified the presence of certain PFAS constituents in the raw water that supplies the WTP at levels that exceed the MCLs for the regulated PFAS constituents. The City submitted a Request for Inclusion (RFI) for an emerging contaminants upgrades project to the DWSRF which was priority listed at the August 9, 2023 quarterly meeting. The City's project is intended to address public health and welfare of the City's drinking water customers by providing compliance with the proposed PFAS NPDWR for the long term, in the most cost-effective manner possible. In general, the proposed WTP upgrades project will consist of a phased approach. The first

phase will meet near-term water demands and consist of a 10 mgd capacity build-out of the City's existing NF facility to a total NF capacity of 20 mgd. The second phase will meet longer-term water demands (beyond five years) and will consist of construction of a 10-mgd capacity membrane facility that will utilize a combination of Biscayne Aquifer-supplied NF and Floridan Aquifer brackish water-supplied reverse osmosis (RO) treatment, as well as decommissioning of the existing LS process. The proportion of NF to RO in the second phase will be determined by raw water availability, as discussed below.

Because the NF treatment technology is substantially less costly on both capital and operating cost bases than brackish water RO, the City plans to investigate and pursue opportunities to obtain additional raw water allocations from the Biscayne Aquifer to maximize utilization of the NF technology. Strategies that will be investigated and pursued under this program will include (but may not be limited to) additional withdrawal offsets from the C-51 Reservoir Project (e.g., Phase 2), offsets from expansion of the City's existing reclaimed water reuse system, and other alterative water supply opportunities. The total project costs presented in this document assume that the Phase 2 facility will be all brackish water RO, which is considered the conservative, worst-case scenario from a cost perspective.

When completed, this project will provide compliance with the proposed PFAS NPDWR. The project costs for the selected alternative are summarized below.

Phase/Cost Component	**Phase 1** **Buildout of NF Facility**	**Phase 2** **New NF Facility**	**Phase 2** **New RO Facility**	**Total** **(Worst-Case RO Facility)**
Design	$4,573,000	$7,683,500	$15,690,500	**$20,263,500**
Construction	$50,811,000	$85,373,000	$174,338,000	**$225,149,000**
Engineering Services During Construction	$4,573,000	$7,683,500	$15,690,500	**$20,263,500**
Total	**$59,957,000**	**$100,740,000**	**$205,719,000**	**$265,676,000**

As discussed in Section 4, the buildout of the NF facility will provide sufficient PFAS-compliant treatment capacity to meet the City's near-term water demands. Construction of a new 10-mgd capacity NF/RO facility will be necessary to replace 10 mgd of existing lime softening treatment capacity to meet longer-term water demands. A detailed breakdown of the opinion of probable project costs is provided in Section 4 of this report.