Memorandum

To: *Planning and Zoning Board*

From: *CDM Smith*

Date: *June 13, 2026*

Subject: *City of Delray Beach Water Treatment Plant Upgrades Project Narrative*

Project Introduction

The City of Delray Beach (City) is in the process of upgrading and replacing the existing conventional lime softening Water Treatment Plant (WTP) with a new membrane treatment system. The WTP is located at 200 SW 6th Street Delray Beach, FL 33444. The existing lime softening plant has a 26 million gallons per day (MGD) capacity and is subject to State and Federal drinking water quality regulations.

Due to the increasing age of the existing facility and a changing regulatory landscape, the City selected CDM Smith to replace their existing 26 MGD conventional lime softening treatment plant with a new 22 MGD membrane-based water treatment plant with the ability to expand to 25 MGD. This project will upgrade the existing treatment plant including replacing aging infrastructure and improvement to meet new per- and polyfluoroalkyl substances (PFAS) regulations promulgated in April 2024. The project will also include a proposed administration building on the parcels owned by the City east of SW 2nd Avenue and south of SW 6th Street.

Design Elements

CDM Smith refined the site plan including architectural elevations to ensure full compliance with Land Development Regulations (LDR) and enhance site compatibility. Building setbacks for all structures were clearly documented, building heights and architectural features comply with maximum height and measurement requirements, and architectural enhancements were incorporated to improve the overall visual composition.

The landscape plans fully comply with the requirements of LDR Sections 4.6.16 and 4.6.16(H), including detailed area calculations, diagrams, and updated planting standards. Landscape areas were clearly delineated by special landscape setbacks, landscape barriers, interior landscaping, streetscape, and foundation planting and documented through coordinated plan sheets and tabular summaries.

The planting design was refined to meet City standards and Florida-friendly landscaping principles, with plant schedules identifying botanical and common names, quantities, sizes, and symbols. Tree and palm sizes meet minimum height, trunk clearance, and canopy requirements, and plant species were adjusted to address right-of-way constraints and City preferences. Utility coordination was incorporated by removing or relocating trees that conflicted with underground utilities, and additional trees were provided within the perimeter buffer to enhance screening and visual continuity. Overall, the landscaping plan improves site aesthetics, ensures regulatory compliance, and provides appropriate buffering consistent with the surrounding context.

The design includes adjustments to finished floor elevations to meet flood protection and roadway crown requirements, updates to grading and drainage systems, and clarification of stormwater conveyance elements to ensure proper function, constructability, and regulatory compliance. A signed and sealed drainage report demonstrating compliance with pre- and post-development stormwater criteria was provided, along with calculations for multiple storm events.

Roadway, access, and utility coordination were enhanced through added pavement milling and resurfacing at utility tie-ins, confirmation of gate operations and stacking relief, and sight-distance requirements.

The water and sanitary sewer utility plans were refined through detailed coordination with City's Water Utilities staff to ensure consistency across all civil, site, landscape, and architectural drawings and full compliance with City standards. Existing and proposed utilities were clearly identified, coordinated with demolition and construction phasing, and revised where necessary to eliminate conflicts and improve constructability. Utility infrastructure meets City material, sizing, and configuration standards, including service line materials, meter locations, backflow prevention, fire protection connections, sanitary sewer laterals, manholes, cleanouts, and pipe crossings. Irrigation and fire water systems are clearly defined.

The project has been coordinated with the Fire Safety Division to ensure that all life safety and fire protection requirements are met. Fire and hazardous materials safety were addressed through the submission of Safety Data Sheets and detailed documentation of the types, locations, and quantities of chemicals and fuel stored on site. Chemical storage tank materials, sizes, and capacities were clearly identified, and fuel storage tank capacities and dimensions were provided. These measures ensure that fire protection systems, chemical storage, and fuel facilities are designed to protect public safety, support emergency response, and comply with applicable fire codes for the safe operation of this essential water treatment facility.

Community Engagement

The City held a community engagement meeting on June 26, 2025, to inform residents about planned upgrades to the WTP and to explain why the improvements are necessary. City leadership, Water Utilities staff, and CDM Smith outlined the purpose of the project, existing conditions, and the long-term benefits to water quality, system reliability, and regulatory compliance.

The presentation explained the City's current water system, including source water wells, the existing lime softening water treatment plant, and the proposed project. The project's intent is to replace aging infrastructure and introduce advanced treatment technologies to improve water quality specifically addressing color, taste, odor, and emerging regulatory requirements such as PFAS. Visual renderings were shared to illustrate the "before and after" condition of the site, highlighting architectural features, perimeter walls, and landscaped buffers designed to minimize visual impacts on the surrounding community.