

## **H.L. Mooney Advanced Water Reclamation Facility Wide Improvements**

Design Build Contract # SA-2101A-B

Owner's Consultant Contract # SA-2104

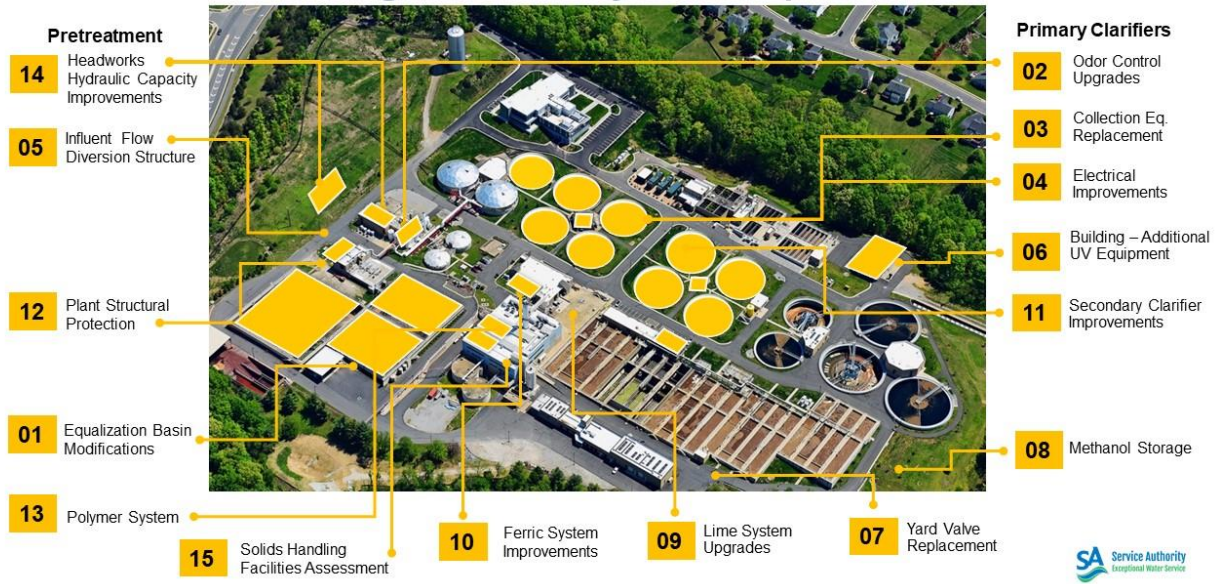
### **Project Background:**

The H.L. Mooney Advanced Water Reclamation Facility (AWRF) is a 24.0 mgd facility that includes preaeration, preliminary treatment, flow equalization, primary treatment, biological nutrient removal (BNR), enhanced nutrient removal (ENR), chemical phosphorous removal, tertiary filtration, and ultraviolet disinfection. Solids processing includes gravity thickening, centrifugal dewatering, fluidized bed incineration, and ash disposal. Flow received at the H.L. Mooney AWRF must be processed on a continuous and uninterrupted basis, 24-hours a day, seven days a week and meet all regulatory requirements for air, water, and safety.

**Project Description:** This Prince William County Service Authority project is a progressive design-build project that includes the professional design, project management, owner's consultant services, and construction services necessary to design and construct of fifteen (15) project components, fluidized bed incinerator (FBI) improvements and freight elevators improvements.

1. Component 1 - Equalization Basin Modifications
2. Component 2 - Centralized Odor Control System Upgrades
3. Component 3 - Primary Clarifier Collection Equipment Improvement
4. Component 4 - Primary Clarifier Electrical Building and Ancillary Facility Upgrades
5. Component 5 - Influent Flow Diversion and Equalization Basin Flow Metering Improvements (Removed from Project as a separate component – addressed in Component 14 improvements).
6. Component 6 - Ultraviolet (UV) Building Improvements and Additional UV Equipment
7. Component 7 - Yard Valves Replacement
8. Component 8 - Methanol System Improvements
9. Component 9 - Lime System Upgrades
10. Component 10 - Ferric Chloride System Improvements
11. Component 11 - Secondary Clarifier Improvements
12. Component 12 - Plant Structural Protection (miscellaneous assets)
13. Component 13 – Solids Polymer System Improvements
14. Component 14 - Headworks and Featherstone Force Main Analysis and Design
15. Component 15 Solids Handling Facilities Assessment

## Design-Build Project Components



### Project benefits:

This project will provide improved operational resiliency, improved level of service and allow the plant to continue to meet its regulatory requirements.

Benefits to Customers/ residents:

- Odor Control Improvements
- Reinvesting in infrastructure
- Added resiliency for continuous treatment
- Enhanced sustainability impact and potential Institute for Sustainability Infrastructure (ISI) Envision certification
- Environmental stewardship outreach opportunities

**Project Website:** <https://www.pwcsa.org/mooney-improvements>

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