

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 nineteen (19) project components listed below.

1. Component 1 - Equalization Basin Modifications
2. Component 2 - Primary Clarifier 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 - Equalization Basin Flow Metering 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 – Alkalinity System Upgrades
10. Component 10 - Ferric Chloride System Improvements (excluded from scope)
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 Related Improvements

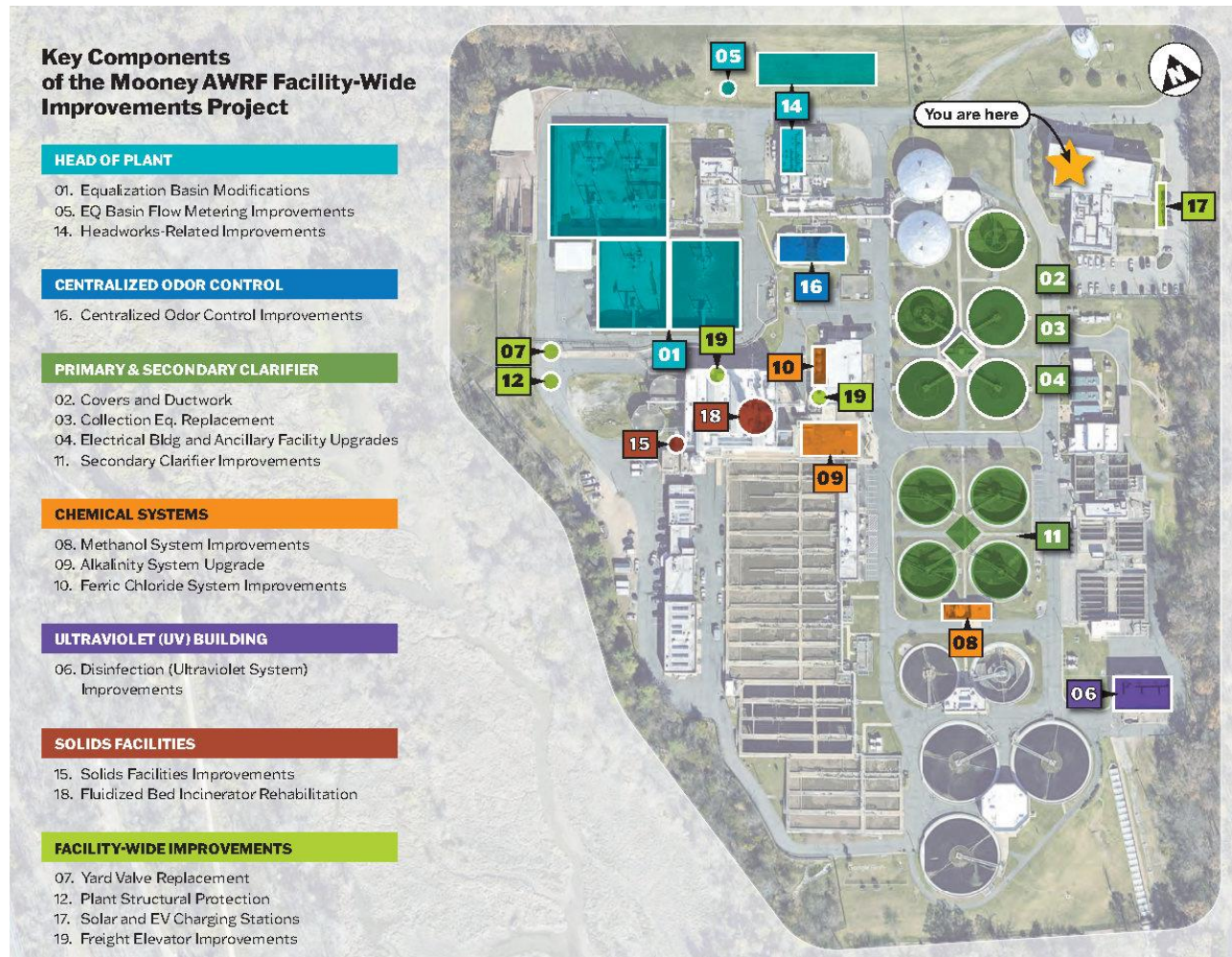
15. Component 15 - Solids Facilities Improvements

16. Component 16 – Centralized Odor Control System

17. Component 17 - Solar and EV Charging Stations (Design only)

18. Component 18 - Fluidized Bed Incinerator Rehabilitation

19. Component 19 – Freight Elevator Improvements



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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