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Executive Summary

Avenel Property Feasibility Study

September 2025

Purpose:

WSSC Water is reevaluating the long-term strategic use of the Avenel Property. While originally intended for wastewater infrastructure, the utility wishes to assess whether the site remains viable for that purpose or if alternative uses may better align with its Strategic Plan and projected service area needs.

To support this decision-making process, a Technical Memorandum (TM) was prepared to provide a planning-level feasibility assessment of the property for four potential utility-related uses over a 20-year horizon:

1. Development of water treatment facilities
2. Development of wastewater treatment facilities
3. Construction of finished water storage facilities
4. Establishment of a maintenance depot

Each scenario was evaluated based on projected system demands, operational requirements, site characteristics, logistical feasibility, and land use compatibility. The findings are summarized below.

Analysis Summary:

Scenario 1: Water Treatment Facilities

- Existing Patuxent and Potomac WFPs are sufficient through 2045.
- Avenel is not a practical or cost-effective site for new treatment or PFAS facilities.
- Would require extensive infrastructure (pipelines, pumping stations).
- Site is too remote from water supply and major water transmission systems.

Scenario 2: Wastewater Treatment Facilities

- Current and projected flows are manageable with existing facilities.
- No additional treatment capacity is needed within the planning horizon.
- Avenel is not geographically or economically suitable for new WRRFs.
- Prior studies and public opposition further reduce feasibility.

Scenario 3: Finished Water Storage Facilities

- Fire flow deficiency exists in Zone 350A, but Avenel is in Zone 495A and too distant.
- Development would require multiple storage tanks, chemical feed systems, extensive transmission piping, and a dispersed operational footprint.
- Could introduce water quality risks due to aging and turnover.
- Enhancing inter-zone connections is a more effective solution.
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Scenario 4: Maintenance Depot

- Site is remote from core utility infrastructure and operations.
- Access is limited to narrow residential roads, unsuitable for heavy equipment.
- Previously eliminated in a 2017 screening due to zoning and location.
- Considering the location of existing depots, the Avenel site does not offer a logistical benefit to justify an additional facility.
- High land value makes it economically inefficient for depot use.