

PROPOSED

COUNTY COUNCIL OF ANNE ARUNDEL COUNTY, MARYLAND

Legislative Session 2024, Legislative Day No. 21

Bill No. 93-24

Introduced by Ms. Pickard, Chair
(by request of the County Executive)

By the County Council, November 18, 2024

Introduced and first read on November 18, 2024
Public Hearing set for December 16, 2024
Bill Expires February 21, 2025

By Order: Kaley Schultze, Administrative Officer

A BILL ENTITLED

1 AN ORDINANCE concerning: Planning and Development – Master Plan for Water Supply
2 and Sewerage Systems

3
4 FOR the purpose of amending the Master Plan for Water Supply and Sewerage Systems,
5 2022, to alter certain text and maps; and generally relating to the Master Plan for Water
6 Supply and Sewerage Systems.

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8 SECTION 1. *Be it enacted by the County Council of Anne Arundel County, Maryland,*
9 That the text of the Anne Arundel County Master Plan for Water Supply and Sewerage
10 Systems, 2022, as amended (the “Plan”) is hereby amended as follows:

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12 1. On page 4-73 of the Plan, amend “4.7.9.5 Required Infrastructure
13 Improvements” as shown in Exhibit A attached hereto.

14
15 2. On page 4-89 of the Plan, in “Table 4-37 Wastewater Capital Improvement
16 Projects, Anne Arundel County”, amend the row beginning with “Piney Orchard SPS &
17 FM” as shown in Exhibit B attached hereto.

18
19 SECTION 2. *And be it further enacted,* That the maps of the Anne Arundel County
20 Master Plan for Water Supply and Sewerage Systems, 2022, as amended (the “Plan”) are
21 hereby amended as follows:

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23 1. As shown on Exhibit C, attached hereto, on Sewer Map S-4, a new Capital
24 Facility pump station and forcemain are added to the map in the Piney Orchard Sewer
25 Service Area to show that the new pump station will take the flow from the Piney Orchard
26 Water Reclamation Facility and the existing sewer pump station and convey it to Patuxent
27 Water Reclamation Facility; and a note is added to the map to indicate that once the new

1 pump station and forcemain are in operation, the existing Piney Orchard Water
2 Reclamation Facility will be decommissioned.

3

4 SECTION 3. *And be it further enacted,* That a certified copy of the Plan as amended
5 by this Ordinance shall be permanently kept on file with the Administrative Officer to the
6 County Council and the Office of Planning and Zoning.

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8 SECTION 4. *And be it further enacted,* That a certified copy of the map amendments
9 to the Plan shall be permanently kept on file with the Administrative Officer to the County
10 Council and the Office of Planning and Zoning.

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12 SECTION 5. *And be it further enacted,* That this Ordinance shall take effect 45 days
13 from the date it becomes law or upon approval of the Maryland Department of the
14 Environment under the authority granted by § 9-507 of the Environment Article of the State
15 Code, whichever is later. If approved, in whole or in part, after the 45 days the approved
16 provisions of this Ordinance shall take effect on the date the notice is received by the Office
17 of Planning and Zoning. If disapproved, in whole or in part, the disapproved portions of
18 this Ordinance shall be null and void without further action by the County Council. The
19 Office of Planning and Zoning, within 5 days after receiving any notice from the Maryland
20 Department of the Environment, shall forward a copy to the Administrative Officer to the
21 County Council.

CHAPTER 4 | SEWERAGE SYSTEMS

4.7.9.3 Water Reclamation Facility

Prior to July 1, 2019, the wastewater treatment facility was owned by the Piney Orchard Utility Company, LLC and operated by the Maryland Environmental Service (MES). Since July 1, 2019, the facility has been owned and operated by the Anne Arundel County Department of Public Works. The Piney Orchard WRF was built in 1989 with an original design capacity of 1.2 million gallons per day (MGD). The facility includes preliminary treatment, Carrousel reactors configured as a 5-stage Bardenpho process, secondary clarifiers, denitrification filters, and UV effluent disinfection.

The facility is currently permitted at a hydraulic design flow of 1.2 MGD, however, permit loading rate parameters are based on a 0.7 MGD plant rated operational flow. This is the result of a 2013 agreement between the Two Rivers Development Company and partners, the Piney Orchard Utility Company, and the County that traded 500,000 GPD of equivalent nutrient load capacity, minus a 5% nutrient load retirement, from the Piney Orchard Treatment Plant to Anne Arundel County. The existing average daily flow at the facility is approximately 0.57 MGD. The Piney Orchard WRF effluent is discharged into the Little Patuxent River.

4.7.9.3.1 Strategic Plan for Infrastructure Expansion

The Piney Orchard WRF is currently sized to service the existing and planned service categories of the service area with the current land use and zoning.

4.7.9.4 Pumping Station Collection and Conveyance Systems

The inventory of this infrastructure within the SSA includes the following:

- a) 29.9 miles of gravity mains ranging from 8 to 20 inches in diameter
- b) 0.25 miles of pressure collectors (grinder pump systems) ranging from 1.5 to 2.5 inches in diameter
- c) Approximately 4,200 connections

The major infrastructure components are currently sized to handle the anticipated flows within the current planning period.

4.7.9.5 Required Infrastructure Improvements

~~The County is in the process of upgrading the Piney Orchard facility with several projects under CIP S807600. The planned upgrades will improve operability and health and safety conditions for personnel, while cost effectively adding infrastructure to sustainably meet secondary treatment levels and reliably and consistently achieve ENR permit limits. The design of the Enhanced Nutrient Removal, Safety and SCADA upgrades at the facility is planned under Project CIP S807601.~~

The County is in the process of providing ENR level treatment by way of a new sewer pump station and forcemain under CIP S807600. The planned upgrades will convey all of the flow currently received at the Piney Orchard WRF to the Patuxent WRF where it will achieve ENR permit limits. The design of the new sewer pump station and forcemain is planned under Project CIP S807601. Once the new pump station and forcemain are in operation the existing Piney Orchard WRF will be decommissioned.

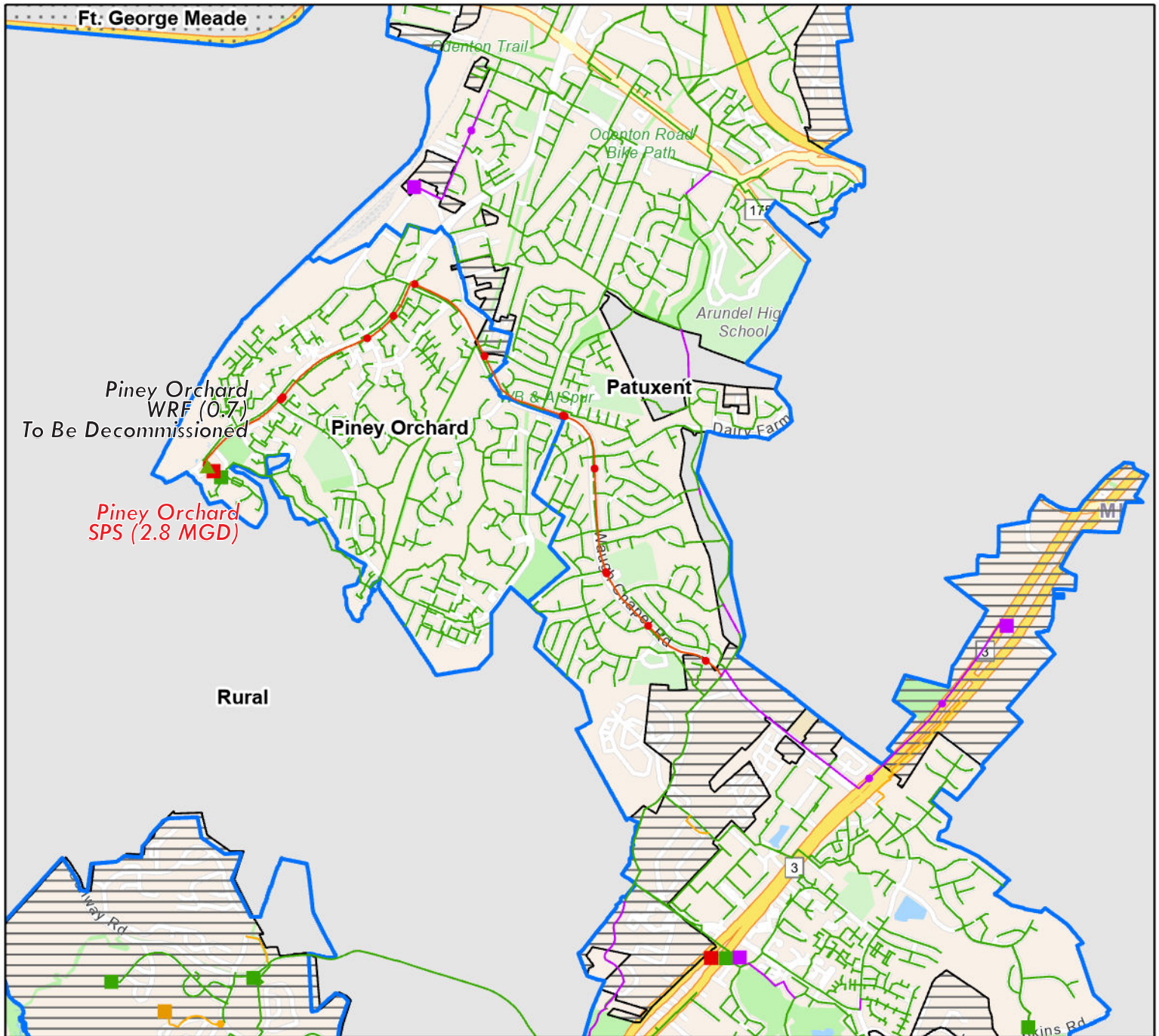
Table 4-28 Piney Orchard Sewer Service Area Inventory of Pumping Stations

Station Name	Owner	Address/Location	Master	Operating	County	Design
Piney Orchard (Rivers Edge)	County	Sandy Walk Way	S-4	G14C1	700324	

CHAPTER 4 | SEWERAGE SYSTEMS

Contract Title	Contract Number	Description
SPS Fac Gen Replace Phase 15	S806216	This contract is for the installation of portable generator connections at fourteen (14) sewage pumping stations - Berkshire, Cape St. Claire 10, Carvel Beach, Creek Road, Glen Ave. Harbor Drive, Meadow Lane, Mount Pleasant Beach, Park Road, Sandy Beach, Sea Breeze, 7th Avenue, Stoney Creek, Sunset Beach, Pigeon House.
SPS Gen Replace Design 3	S806217	This multi-year Task Order contract provides funding for design of the replacement and installation of generators at sewage pumping stations throughout Anne Arundel County.
SPS Fac Gen Replace Phase 16	S806219	This project is for the installation of portable generator connections at the following fifteen (15) sewage pumping stations - Clark Heights, Franklin Manor 2, Carrs Ridge 2, Glebe Heights 2, Glebe Heights 3, Glebe Heights 4, Glebe Heights 5, Holly Hills 2, Loch Haven 2, River Club, Turkey Point 2, Turkey Point 3, West Shores 1, West Shores 2, and Holly Road North.
Pinehaven SPS Fac Gen Repl	S806220	Install new generator and ancillary equipment at Pine Have sewage pumping station.
Park West SPS Fac Gen Install	S806221	This project is upgrading the pump station by improving the pump-around system, replacing the sewage pumps, valves, and pump controls. The pump station will also receive new facility lighting, a new water service and an update to the access ladders. Pump Station reliability will be improved by the addition of a backup generator.
SPS Gen Replace CMI Serv Phase 2	S806222	This is multi-year Task Order contract that provides CM/I services for the replacement of generators and fuel tanks at sewage pumping stations throughout Anne Arundel County.
Maryland City NPW Upgrades	S806602	This contract is or additional upgrades to the NPW and liquid polymer systems of Maryland City.
Tanglewood II Sewer	S807200	This project provides the design, right-of-way acquisition, and construction for sewer improvements to approximately 72 homes. This project is in response to a valid petition.
Annapolis WRF Upgrade	S807301	This project will make improvements to several components at the Annapolis WRF, including replacing bar screens, materials/mechanical improvements to primary and secondary clarifiers, roadway improvements, replacing lower shell fish holding pond liner and electrical manhole rehabilitation.
Annapolis WRF Upgrade Ph 2	S807302	This project will make improvements to several components at the Annapolis WRF, including modifications to existing clarifier launders, construction of a new secondary clarifier, pond upgrades, and road rehabilitation.
Broadneck WRF Clarifier Rehab	S807401	This contract includes the design, construction and inspection of improvements to the existing secondary clarifiers at the Broadneck WRF. Work will also include scum handling and sluice gate replacements.
Heritage Harbor Sewer Takeover	S807501	This contract includes design, right of way acquisition, inspection, and construction for any improvements required prior to the takeover of an existing private sewer system serving approximately 106 homes.
Piney Orchard SPS & FM	S807601	This project is for design of Enhanced Nutrient Removal, Safety and SCADA upgrades at the Piney Orchard WWTP. Piney Orchard SPS & FM S807601 This project is for the design of a new sewer pump station and forcemain.
Crofton SPS Upgrade	S807901	Construction of a new sewage pumping station to replace the existing Crofton sewage pumping station. The new station will be built adjacent to the existing pumping station.
Cox Creek Grit System Improv	S808001	This project will evaluate, design, and construct facilities to address grit handling during high flow events.

Sewer Map S-4



Legend

Sewer Pipes

- Capital Facilities Gravity
- Capital Facilities Force Main
- Existing Gravity
- Existing Force Main
- EXG
- Future Service Gravity
- EXG

- Planned Service Gravity
- Planned Service Force Main

Sewer Facilities

- CFFM
- Capital Facility Other
- Capital Facility Sewer Pumping Station
- ▲ Capital Facility Water Reclamation Facility

- Existing Service Sewer Pumping Station
- ▲ Existing Service Water Reclamation Facility
- Future Service Sewer Pumping Station
- Planned Service Sewer Pumping Station
- ▲ Planned Service Water Reclamation Facility
- Sewer Service Areas

Sewer Service Categories

- Existing Service
- Future Service
- No Public Service
- Other
- Planned Service

