

## SANITARY SEWER

### Intent

The intent of the Sewer Plan is to facilitate the provision of adequate wastewater treatment and cost-effective sewer facilities in a manner consistent with development as reflected by the Long-Range Land Use Plan Map in compliance with the Occoquan Policy, the Potomac Embayment Standards, and Virginia Department of Health Sewer Regulations; and to address existing and potential conditions that could otherwise adversely impact the natural environment and public health, safety, and welfare.

Public sewer is planned and mapped for the Development Area. New development in the Development Area will occur with the provision of public sewer facilities, except in the Semi-Rural Residential (SRR) designation, where on-site sewerage systems may also be used. Development in the Rural Area shall occur without public sewer facilities, except where provided for in this chapter – to address specific public health concerns or to serve a specific public facility. Any extension of public sewers into the Rural Area, however, shall not be used as a justification for increasing the residential densities that are shown on the Long-Range Land Use Plan Map for the Rural Area. The Sewer Plan discourages decentralized on-site sewerage systems in the Rural Area, where more than one lot is to share such a system.

The Sewer Plan includes the following components:

- Intent, Goal, Policies, and Action Strategies
- Existing and Projected Sanitary Sewer Facilities Map (Figure 1)

**GOAL:** Provide economically feasible and environmentally sensitive systems of wastewater and sewage collection, conveyance and treatment to serve existing and proposed development, as reflected by the Long-Range Land Use Plan Map and discussed in the Long-Range Land Use Plan.

**SEW-POLICY 1:** Continue sewer system planning within the development area, so that the costs of system expansions and increases in system capacity will continue to be borne by new development.

**SEW-POLICY 2:** Ensure adequate sewer capacities needed to support planned growth in the Development Area, in accordance with the densities, intensities and locations for new development – as shown in the Long-Range Land Use Plan and Map and in a cost-effective manner.

**ACTION STRATEGIES:**

1. Revise the sewer plans for the County based on the Long-Range Land Use Plan Map. An analysis – including but not limited to the following subjects – should be incorporated into the Sewer Plan following adoption of each five-year update of the County's Comprehensive Plan, in instances where Comprehensive Plan policies or Long-Range Land Use Plan designations or development densities are amended and would have a direct impact upon existing sewer plans, or as part of any required public facility review for sewer extension(s):
  - Potential shortfalls in utility capacities and proposed methods for addressing identified shortfalls.
  - Identification of capital needs, based upon identified shortfalls in utility capacities and identification of potential funding sources. This analysis should consider the relevancy of phased construction as a means to address capital needs.
  - Analysis and recommendations regarding the provision of public service to users of small private sewage treatment plants, decentralized on-site sewerage systems that serve more than one lot and on-site sewerage systems. These facilities may already be existing or may occur in the future, in locations designated Semi-Rural Residential (SRR) on the Long-Range Land Use Plan Map or in other locations, such as for certain public buildings and sites.
2. Require existing structures, where an existing on-site sewer system has failed in the Development Area and where it has been determined by the Prince William County Health Department that no on-site remediation is possible, and where the property line is located within 300 feet of a public sewer line with adequate capacity, to connect to such line.
3. Plan for adequate facility capacity allocations from the Upper Occoquan Sewage Authority to meet projected needs for those portions of western Prince William County that are included within the Development Area.
4. Expand the H. L. Mooney treatment plant to accommodate projected need as reflected by the Long-Range Land Use Plan Map.
5. Plan and coordinate with the Dale Service Corporation to prepare strategies to accommodate projected needs within its service area, as reflected by the Long-Range Land Use Plan Map.
6. Recognize that the Prince William County Service Authority and the Dale Service Corporation are the primary providers of sewage treatment to the County.

7. Design and plan for sewer facilities only in accordance with the densities, intensities, and locations for new development in the Development Area that are shown in the Long-Range Land Use Plan Map.
8. Require all future development within the Development Area, as reflected by the Long-Range Land Use Plan Map, to connect to public sewer facilities, except in those locations designated SRR, where on-site sewerage systems are also permitted.
9. Require new development in the Development Area to fund the capital costs associated with expanding sewer facilities, including line extensions and plant capacity expansions in coordination with the Prince William County Service Authority and in conjunction with the Long-Range Land Use Plan.
10. Evaluate the existing Design and Construction Standards Manual standards for average daily wastewater flow by land use type at least every five years.
11. Monitor failures, as determined by the Health Department, to existing on-site sewerage systems, to determine the need for future extension of public sewer facilities within the Development Area. Such future extension, however, is not to be seen as a reason for an increase in residential densities above those specified on the Long-Range Land Use Plan Map.
12. Prepare a standard policy and regulations to require existing and future development to install appropriate pre-treatment facilities, in accordance with the Prince William County Service Authority or Upper Occoquan Sewer Authority Pretreatment Regulations or Policies, and to connect to public sewer facilities if such development is – or promotes – a health hazard.
13. Maintain an inventory of local systems – small private sewage treatment plants, alternative sewerage systems, and on-site sewerage system – throughout the County.
14. Focus future publicly funded capital improvement programs for sewer facility expansion projects into the Development Area, as reflected by the Long-Range Land Use Plan Map.
15. Prohibit the use of privately owned and privately operated treatment plants for new development projects.
16. Utilize Figure 1: Existing and Projected Sanitary Sewer Facilities Map (Figure 1) to identify the general or approximate location, character, and extent of the features shown thereon. Such features shall be planned, sited, and buffered to provide compatibility with surrounding existing and planned land uses, and shall meet the appropriate policies and action strategies of the Community Design Plan and the Long-Range Land Use Plan.
17. Continue to update local sewer ordinances and pretreatment regulations and/or policies, as appropriate.

**SEWER POLICY 3:** Prohibit the extension of public sewer into the Rural Area, except under special circumstances that maintain the land use densities delineated in the Long-Range Land Use Plan Map and uphold the policies and action strategies outlined in the Comprehensive Plan.

#### **ACTION STRATEGIES:**

1. All new development within the Rural Area shall be served by individual-lot, on-site sewerage systems. Public sewer systems – except under the special circumstances that are outlined in the action strategies contained herein, and as specifically permitted under the action strategies in the Nokesville Sector Plan for the “core area” identified in that sector plan – shall not be extended into the Rural Area.
2. Comply with State requirements to enforce a periodic septic tank pump-out and reporting program in order to ensure proper waste disposal.
3. Develop a Wellhead Protection Program and Groundwater Recharge Zone Protection Program – utilizing procedural guidelines and information available from the U.S. Environmental Protection Agency and the Virginia Groundwater Protection Steering Committee – to protect or improve the groundwater quality and prevent well contamination from faulty or improperly located private waste disposal systems.
4. To serve a public facility, such as a public school, fire station, or public library, allow for the extension of public sewer into the Rural Area.
5. Within the Rural Area, permit the voluntary use of public sewer systems for existing structures in a sub-watershed that has a documented history of sewerage system failures, as determined by the Health Department.
6. Require existing structures whose failed sewerage systems have no on-site remediation – and where the property line is located within 300 feet of a public sewer line with adequate capacity – to connect to such line.
7. Permit existing structures whose property line is within 1,000 feet of a sewer line extended into the Rural Area under the conditions of AS-4, AS-5, or AS-6 above to connect to the line, if there is adequate capacity on that line.
8. Where appropriate, the Prince William County Service Authority will make reasonable efforts to accommodate existing structures along the length of proposed sewer lines; however, no guarantee of service will be made and no increase in capacity beyond that shown on the Long-Range Land Use Plan Map shall be provided.
9. The existence or extension of a public sewer system to serve a site shall not promote increased densities that would not otherwise be allowed given the application of the various chapters of the Comprehensive Plan and relevant compatibility issues.

10. The existence or extension of a public sewer system in the Rural Area shall not provide justification for altering the land use classifications on the Long-Range Land Use Plan Map.
11. Where a sector plan or planning study recommended in the Long-Range Land Use Plan and approved by the Board of County Supervisors calls for extension of public sewer into the Rural Area, permit such extension, so long as such action is consistent with the remainder of the Comprehensive Plan.
12. The cost of any extensions/connections of/to a public system must be borne by the property owners connecting to the system.
13. Investigate the feasibility of obtaining grant funds for use by the County for sewer extension to areas with a high potential for on-site waste disposal system failure.

## **SANITARY SEWER FACILITIES MAP**

The Existing and Projected Sanitary Sewer Facilities Map (Figure 1) reflects existing sewer facilities and proposed facility improvements. The data shown on the map includes the range of pipe sizes planned by the Prince William County Service Authority for that particular system or area.

*From the Piedmont to the Potomac*

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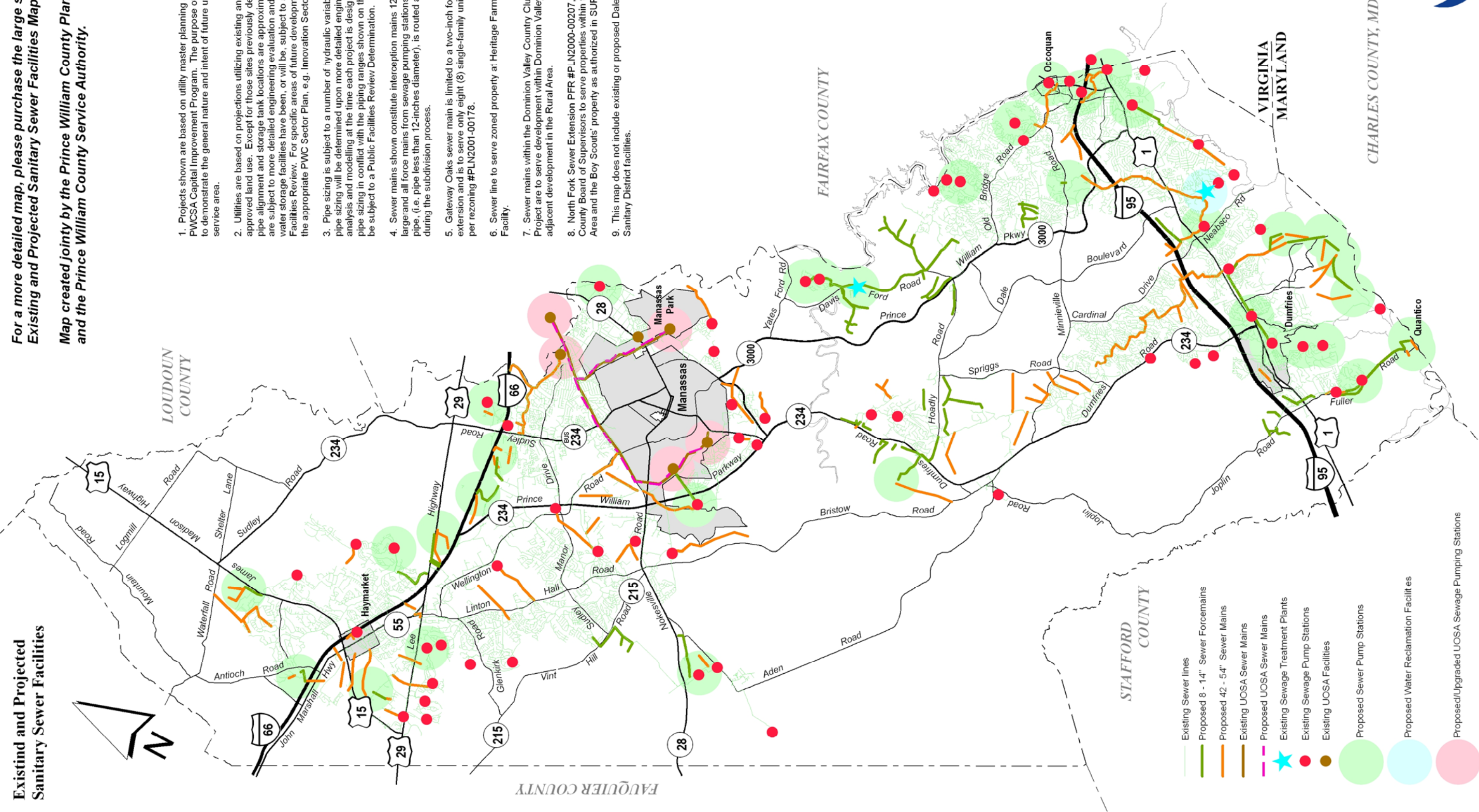
Figure 1 – Existing and Projected Sanitary Sewer Facilities Map

From the Piedmont to the Potomac



For a more detailed map, please purchase the large scale Existing and Projected Sanitary Sewer Facilities Map.  
Map created jointly by the Prince William County Planning Office and the Prince William County Service Authority.

1. Projects shown are based on utility master planning and the PWCSA Capital Improvement Program. The purpose of this map is to demonstrate the general nature and intent of future utilities for the service area.
2. Utilities are based on projections utilizing existing and County-approved land use. Except for those sites previously determined, pipe alignment and storage tank locations are approximate only and are subject to more detailed engineering evaluation and design. All water storage facilities have been, or will be, subject to a Public Facilities Review. For specific areas of future development, refer to the appropriate PWC Sector Plan, e.g. Innovation Sector Plan.
3. Pipe sizing is subject to a number of hydraulic variables. Final pipe sizing will be determined upon more detailed engineering analysis and modelling at the time each project is designed. Final pipe sizing in conflict with the piping ranges shown on the map will be subject to a Public Facilities Review Determination.
4. Sewer mains shown constitute interception mains 12-inches and larger and all force mains from sewage pumping stations. Collection pipe, (i.e. pipe less than 12-inches diameter), is routed and designed during the subdivision process.
5. Gateway Oaks sewer main is limited to a two-inch force main extension and is to serve only eight (8) single-family units, as approved per rezoning #PLN2001-00178.
6. Sewer line to serve zoned property at Heritage Farms and any Public Facility.
7. Sewer mains within the Dominion Valley Country Club Development Project are to serve development within Dominion Valley only and no adjacent development in the Rural Area.
8. North Fork Sewer Extension PFR #PLN2000-00207, approved by the County Board of Supervisors to serve properties within the Development Area and the Boy Scouts' property as authorized in SUP#98-0038.
9. This map does not include existing or proposed Dale City Sanitary District facilities.



Exist and Projected Sanitary Sewer Facilities

- Existing Sewer lines
- Proposed 8 - 14" Sewer Forcemains
- Proposed 42 - 54" Sewer Mains
- Existing UOSA Sewer Mains
- Proposed UOSA Sewer Mains
- Existing Sewage Treatment Plants
- Existing Sewage Pump Stations
- Existing UOSA Facilities
- Proposed Sewer Pump Stations
- Proposed Water Reclamation Facilities
- Proposed/Upgraded UOSA Sewage Pumping Stations