

1.0 INTRODUCTION

1.1 Purpose of the Study

Goochland County has prepared this Water Supply Plan to evaluate the current and future water supply needs in Goochland County to ensure that the water needs of the people living in the County will be met now and in the future. The Plan has been prepared in accordance with the State of Virginia Water Supply Regulation 9 VAC 25-780.

The water supply planning process is designed to:

- ◆ Ensure that adequate and safe drinking water is available;
- ◆ Encourage, promote and protect all other beneficial uses of water resources;
- ◆ Encourage, promote, and develop incentives for alternative water sources; and
- ◆ Promote conservation.

This Water Supply Plan was developed to comply with the State Water Control Board's Local and Regional Water Supply Planning Regulation (9 VAC 25-780-10 through 9 VAC 25-780-190, hereinafter, the "Regulation") which establishes a comprehensive water supply planning process for the development of local, regional and state water supply plans.

1.2 Regional Nature of the Study

The Plan represents Goochland's portion of a Regional Water Supply Plan. The Counties of Goochland, Henrico, Cumberland and Powhatan have agreed to cooperate in the development of a Regional Water Supply Plan and this document represents Goochland County's portion of that Regional Plan.

1.3 General Location and Description

Goochland County is a growing rural county located along the northern bank of the James River in the lower Piedmont Plateau immediately west of Richmond and Henrico County in the Richmond Metropolitan Area. The county is predominately rural encompassing approximately 289 square miles. There are eight villages in Goochland County that are defined as Major or Rural Villages according to their existing land uses and development potential. Major Villages are more populated communities where more

residential, commercial, and other land uses are integrated. The established Major Villages in the county are Goochland Courthouse, Centerville, Oilville, and Manakin. Rural Villages feature primarily low density residential uses but may include small areas zoned for limited commercial uses serving the surrounding rural area. The Rural Villages in the county are Crozier, Hadensville, Sandy Hook, and George’s Tavern/Fife.¹ According to the U.S. Census Bureau, the county’s population in 2000 was 16,863; the 2010 population was 21,717. Figure 1 depicts Goochland County’s location in relation to its surrounding counties and the City of Richmond. A more detailed map of Goochland County that shows the Major and Rural Villages and the major transportation corridors can be seen in Figure 2.

1.4 Abbreviations and Definitions Used in This Plan

Throughout this Plan, a number of abbreviations are used. The following table provides definitions for each. In addition, definitions for frequently used terms are provided on the following page.

Table 1: Abbreviations Used

| Abbreviation | Definition |
|---------------------|--|
| Cfs | Cubic Feet per Second |
| ERC ² | Equivalent Residential Connection |
| gpd | Gallons per Day |
| gph | Gallons per Hour |
| gpm | Gallons per Minute |
| HP | Horse Power |
| lbs | Pounds |
| mgd | Million Gallons per Day |
| psi | Pounds per Square Inch |
| rpm | Rotations per Minute |
| TDH | Total Dynamic Head |
| VDEQ | Virginia Department of Environmental Quality |
| VDGIF | Virginia Department of Game and Inland Fisheries |
| VDH | Virginia Department of Health |
| VOF | Virginia Outdoors Foundation |

¹ Goochland County 2028 Comprehensive Plan.

² ERC = Equivalent Residential Connection or 400 gpd, in accordance with the 1995 Waterworks Regulations.

Community water system means a waterworks that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents, and is regulated by the Virginia Department of Health Waterworks Regulation (12VAC5-590).

Non-community systems means a public water system (usually a well) that serve facilities such as schools, factories, restaurants, resorts, and churches.

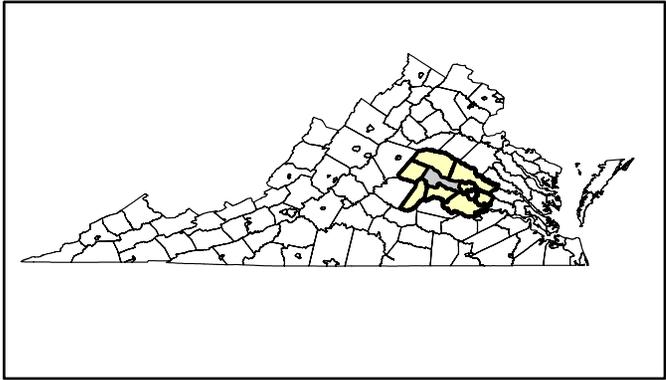
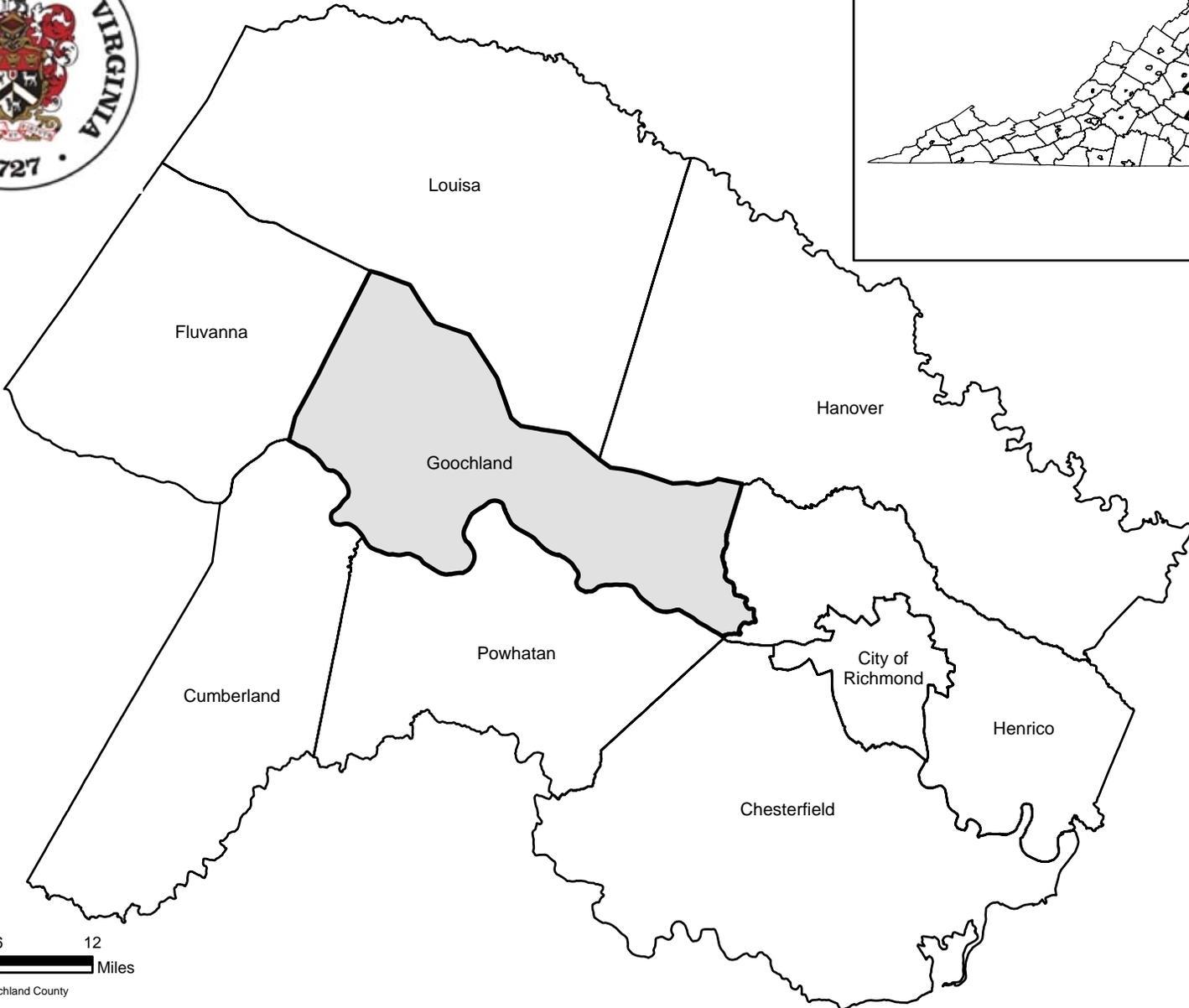
Non-transient-non-community systems serve the same individuals every day (such as a school, daycare, or factory).

Transient-non-community systems serve different individuals each day (such as a restaurant, motel, or highway rest area).

Self-supplied user means any person making a withdrawal of surface water or groundwater from an original source (e.g., a river, stream, lake, aquifer, or reservoir fed by any such waterbody) for their own use. Self-supplied users do not receive water from a community water system.

Water Demand Management means plans for water conservation, reuse, and reducing unaccounted for water losses contained in a local program.

Water sources means wells, stream intakes, and reservoirs that serve as sources of water supplies.



Source: ESRI; Goochland County

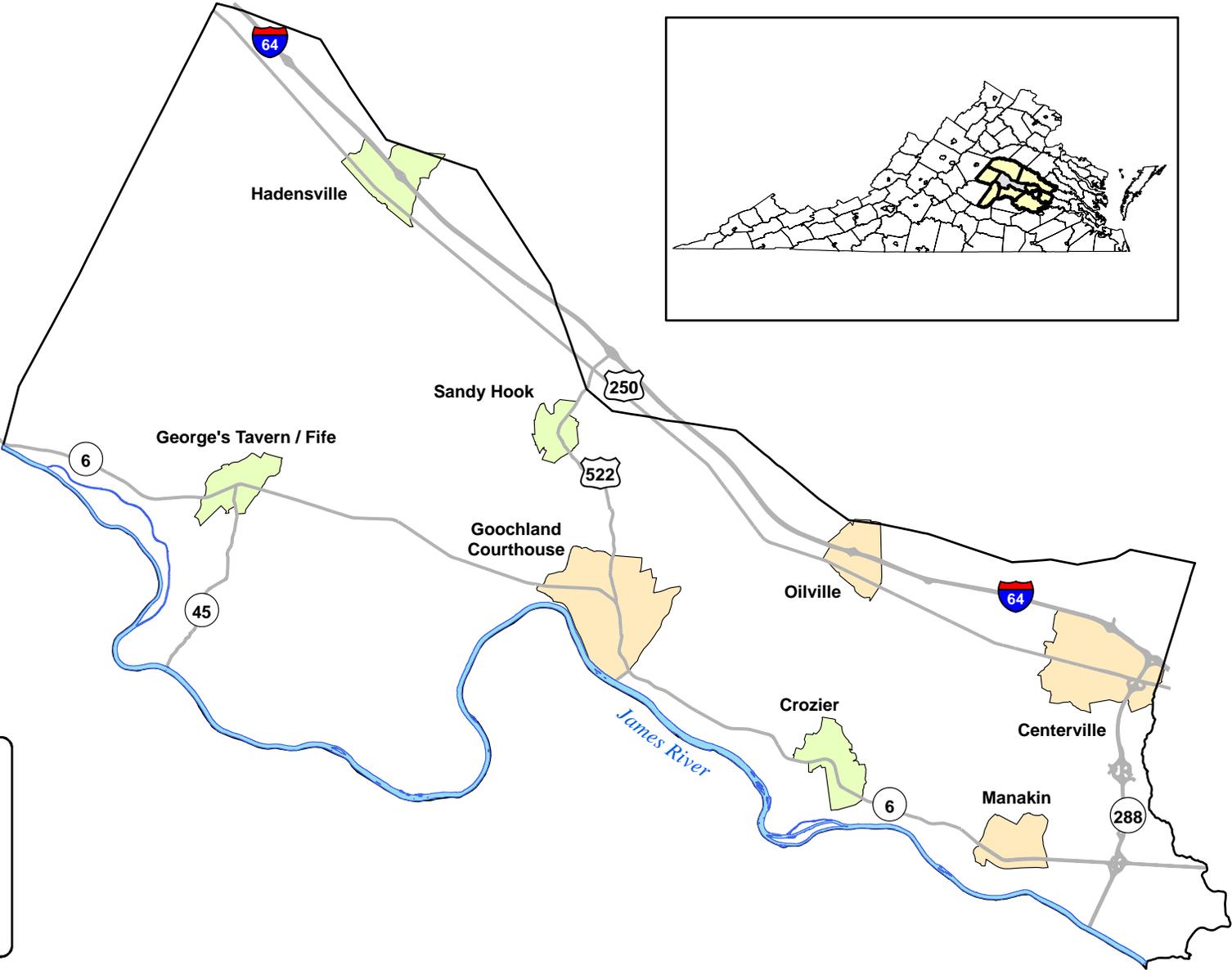
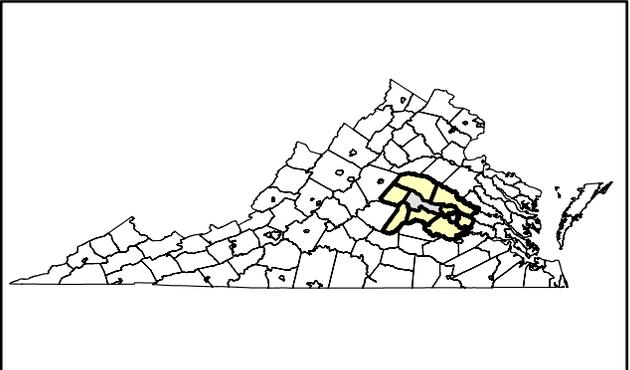


BLACKSBURG, VA CHARLOTTESVILLE, VA HAMPTON ROADS, VA RICHMOND, VA

Goochland and Surrounding Counties

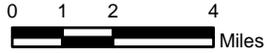
FIGURE
1

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Legend

- Major Road
- Major Village
- Rural Village



Source: ESRI; Goochland County



BLACKSBURG, VA CHARLOTTESVILLE, VA HAMPTON ROADS, VA RICHMOND, VA

Goochland County

Virginia

FIGURE

2

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