

**REPORT ON THE
TOWN OF WARRENTON –
FAUQUIER COUNTY
VOLUNTARY SETTLEMENT AGREEMENT**



Commission on Local Government

Department of Housing and Community Development

Commonwealth of Virginia

<http://www.dhcd.virginia.gov>

November 2024

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Executive Summary

On May 17, 2024, the Town of Warrenton and Fauquier County jointly submitted a notice of a proposed Voluntary Settlement Agreement to the Commission on Local Government to review. The Proposed Agreement was negotiated under § 15.2-3400 of the Code of Virginia, which allows localities to settle interlocal issues through negotiated agreements. However, before the localities may enact any negotiated agreement, the Commission must review the agreement and issue an advisory report on whether the agreement is in the best interest of the Commonwealth. When issuing its advisory report, the Commission is directed to hold hearings, make investigations, analyze local needs, and then submit its findings of fact and recommendations as to whether the voluntary settlement agreement is in the best interest of the Commonwealth to the affected local governments. The local governments may then adopt any recommendations before the agreement is sent to a special court for ultimate disposition.

The Proposed Agreement provides for the Town of Warrenton to annex 241 acres of land that currently lie in the County and limits the development of that land to the zoning conditions that were proffered by the developer and accepted by the County in November of 2023. The VSA further stipulates that the developer and owner will pay for certain improvements to roads and wastewater systems in the Town in exchange for a higher-density development once the property is annexed into the Town, among other provisions. The Commission finds that the agreement is in the best interest of the Commonwealth and recommends its adoption because it promotes the orderly growth and continued viability of the Town and County by providing for the productive use of land, increased tax enterprise fund revenues, and funding for improvements to key services that otherwise would have to be provided by the localities and paid for by the citizens of the Town. The Commission therefore recommends the Proposed Agreement be adopted in its current form without any changes.

What follows is the Commission's advisory report on the Proposed Agreement. First, this report overviews the proceedings before the Commission that led to this report. Second, it explains the characteristics of the Parties, highlighting those that are most relevant to the Commission's review. Third, it discusses the relevant standard of review and applies that

standard to the Proposed Agreement through findings of fact and recommendations. Finally, the report concludes that the Proposed Agreement is in the best interest of the Commonwealth.

Proceedings of the Commission

On May 17, 2024, the Town of Warrenton (“the Town”), Fauquier County (“the County”), Van Metre Communities LLC (“Van Metre”), Alwington Farm, LLC (“Alwington”), and Alwington Farm Developers, L.L.C. (collectively, the “Parties”) jointly submitted a notice of their intention to enter into a Voluntary Settlement Agreement (“The Notice”).¹ The Notice stated the Parties’ intention to allow the Town to annex approximately 241 acres of land currently in the County (the “Annexation Area”) that is owned by Alwington and other entities.² The portions of the land owned by Alwington (the “Alwington property”) would be annexed under a development plan that contains conditions that were proffered to the County by Van Metre and would require public utilities to be provided by the Town. To accomplish the annexation, the Parties drafted a voluntary settlement agreement (“the Proposed Agreement” or “the VSA”) that would ensure that the Alwington property would be developed in a manner that is acceptable to both the Town and the County, among other provisions.³

The Proposed Agreement was developed by the Town and County jointly in the months leading up to its submission to the Commission. On April 12, 2024, the County authorized its staff to take the necessary steps, in coordination with the Town, to submit a voluntary settlement agreement to the Commission,⁴ and on May 14, 2024, the Town gave its staff similar authorization.⁵ The Notice contained the VSA, dated March 14, 2024, rezoning documents applicable to the Alwington property, supporting narratives, and additional evidence. On July 22, 2024, the Parties submitted an updated Proposed Agreement containing non-substantive typographical and formatting changes.⁶ Consistent with the Commission’s regulations, the

¹ Van Metre Communities, LLC, NOTICE OF VOLUNTARY SETTLEMENT AGREEMENT BETWEEN AND AMONG THE TOWN OF WARRENTON, VIRGINIA, THE COUNTY OF FAUQUIER, VIRGINIA AND ALWINGTON FARM, LLC, ALWINGTON FARM DEVELOPERS, LLC, AND VAN METRE COMMUNITIES, LLC, May 17, 2024, as amended on July 22, 2024 (on file with the Commission) [hereinafter *the VSA Notice*].

² The following entities own additional property within the Annexation Area: HD Development of Maryland, Inc. (.73 acres); Padmaja and Srinivas Dasari (1.16 acres); VABFT, LLC (4.3 acres); the School Board of Fauquier County (.81 acres); and the Fauquier County Board of Supervisors (County Right-of-Way along Alwington Boulevard). There has not been any registered opposition to annexation from these property owners.

³ *The VSA Notice*, p. 3.

⁴ *Id.*, p. 98.

⁵ *Id.*, p. 97.

⁶ *Id.*, p. 121.

Notice was also sent to the political subdivisions that are contiguous to the Town and County or with which they share functions, revenue, or tax sources.

The Commission held a hearing to review the VSA on September 16, 2024, with oral presentations from the Parties at the Warrenton Town Hall.⁷ The Commission also held a public hearing, advertised in accordance with § 15.2-2907(B) of the Code of Virginia, in the evening on September 16, 2024, also at the Warrenton Town Hall, for the purpose of receiving public comment on the Proposed Agreement.⁸ The public hearing was attended by approximately 30 people and produced testimony from 5 individuals along with written comments from citizens who could not attend. To permit receipt of additional public comment, the Commission agreed to keep its record open for written testimony through 5:00 pm on September 30, 2024. After the hearing, the Commission received additional written testimony and evidence from Town and County elected officials, citizens, and the parties. The Commission also requested further information from the Parties on September 23 and October 7. All additional written testimony, evidence, and responses to Commission questions are included as Appendix A.

The Commission is obligated to render a report with its findings of fact and recommendations within six months of receiving notice of a voluntary settlement agreement.⁹ However, the Commission may extend that deadline either by 60 days on its own motion or to a date agreed upon by the Parties.¹⁰ This report was adopted at a regular meeting of the Commission on November 1, 2024, and sent to the Parties for their consideration and approval by their respective governing bodies.¹¹ Following this Commission report, the Proposed Agreement (either in original or modified form) shall not become binding on the Town or County until it has been adopted by ordinance by both local governments after a public hearing and subsequently affirmed by a special court.¹²

⁷ *Minutes of Oral Presentations*, COMM. ON LOCAL GOV'T, September 16, 2024.

⁸ *Minutes of Public Hearing*, COMM. ON LOCAL GOV'T, September 16, 2024.

⁹ Va. Code Ann. § 15.2-3400 (2024); 15.2-2907(A) (2024).

¹⁰ *Id.*

¹¹ *Minutes of the November 1, 2024 Regular Meeting*, COMM. ON LOCAL GOV'T, November 1, 2024.

¹² Va. Code Ann. § 15.2-3400 (2024).

Overview of the Proposed Agreement

On November 9, 2023, before the Parties had contemplated entering into the Proposed Agreement, the County approved a rezoning of the Alwington property with multiple development alternatives.¹³ One of the alternative that permits a higher-density housing development and multiple commercial parcels was approved contingent on the property being annexed into the Town and having access to public water and wastewater utilities.¹⁴ The Town and the County subsequently agreed that this rezoning, along with the proffered conditions of development, should control the development of the land regardless of whether it was subject to the Town or County's jurisdiction.¹⁵ On December 12, 2023, the Town adopted a resolution supporting a potential citizen-initiated annexation petition on the conditions that the Alwington property would be developed in accordance with the County's rezoning, that the Taylor Run Pump Station would be relocated, redesigned and reconstructed at Alwington and Van Metre's expense, and that Alwington Boulevard would be improved to the Town's satisfaction, also at Alwington and Van Metre's expense.¹⁶ The terms of this resolution formed the basis for the Proposed Agreement submitted to the Commission.¹⁷

The Proposed Agreement combines the development proffers in the County's rezoning and the Town's additional commitments from Alwington and Van Metre. The main provisions of the Proposed Agreement are 1) that the Town will annex approximately 241 acres of land currently in the County into the Town, 2) that the Town will administer development of the Annexation Area in a manner that is consistent with and in substantial conformance with the County's November 9, 2023 rezoning of the Alwington property, 3) that the Town will connect properties within the Annexation Area to the Town wastewater and water systems upon written request by the owner, and 4) that Alwington and Van Metre are jointly responsible for designing and constructing improvements to Alwington Boulevard and a Relocated Taylor Run Pump

¹³ *The VSA Notice*, p. 7.

¹⁴ *Id.*, p. 3.

¹⁵ *Id.*

¹⁶ *Id.*, p. 125-26.

¹⁷ The inclusion of the additional commitments by the private parties that were not proffered to the County is why there are non-local governments who are parties to the Proposed Agreement.

Station according to the Town's designs with final approval by the Town. Additional provisions ensure that properties that lie between the Alwington property and the current Town boundary are included in the Annexation Area to avoid islands of County jurisdiction within the Town.

Characteristics of the Town and County

The Town of Warrenton and Fauquier County are located in the north-central portion of Virginia. Situated between both rural counties, such as Rappahannock and Culpeper, and the more urbanized counties of Northern Virginia such as Prince William, the County is mostly rural with some ex-urban development from Washington, D.C. Fauquier County was created out of Prince William County in 1759 and named for Francis Fauquier, who was the Lieutenant Governor of Virginia at the time. Warrenton began as a trading settlement at the intersection of two important trade routes. The Fauquier County Courthouse was built there in the 1790s, and it was incorporated as a town in 1810.

Warrenton is currently the County seat of Fauquier and is one of the more densely populated areas in the County. While the County has grown more steadily, Warrenton's population has grown by 66% since the 2000 census from 6,670 to a 2022 estimate of 10,111. However, that growth has not been consistent, and has stalled in the past decade; the Town's population in 1990 was 4,830, in 2000 it was 6,670, in 2010 it was 9,611, and in 2023 it was estimated at 10,197.¹⁸ This means that between 1990 and 2000, roughly 1,600 people moved to the Town, between 2000 and 2010, almost 3,000 people did, but in the thirteen years between 2010 and 2023 only 586 people have moved to the Town.¹⁹

¹⁸ United States Census Bureau; 2022 American Community Survey 5-year estimate; *See The VSA Notice*, p. 38.

¹⁹ *The VSA Notice*, p. 38.

Table 1: Selected Demographic and Economic Characteristics of the Localities (2022)			
Population Characteristics	Virginia	Town of Warrenton	Fauquier County
Total Population	8,715,698	10,111	75,165
Percent of Population aged 45 to 54 years	12.2%	14.2%	12.5%
Total Size (Square miles)	39,482.11	4.34	651
Median Household Income	\$87,249	\$83,737	\$110,358
Educational Attainment (Bachelor's Degree or Greater)	41.0%	43.6%	41.1%
Percent Minority*	41.9%	29.5%	32.2%
Population per Square Mile	218.6	2329.7	115.5
Source: 2022 American Community Survey 5-Year Estimate *Includes all individuals who identified as Black or African American, American Indian, Asian, Native Hawaiian or Pacific Islander, Two or More Races, or Hispanic or Latino.			

The Town and County are in the northernmost portion of Growth and Opportunity Virginia Region #9, characterized by a large presence of healthcare, education, and hospitality services industries (though the region has made efforts to increase activity in key trade sector industries). While educational attainment in the Town and County is similar to that of the Commonwealth as a whole, the standard of living in the County as a whole is slightly higher, likely due to its proximity to Washington, D.C. Unlike Virginia as a whole, where population is roughly evenly distributed and no 10 year demographic makes up greater than 14% of the population, the Town and County's age distribution is not even.²⁰ Those aged 45-54 are the largest age demographic in the Town at 1,435 people, or 14.2% of the population, whereas the County's largest age demographic is 35 to 44 years of age at 11,299 people, or 15% of the population.²¹

Because it is mostly rural, the County has designated eight service districts for public utilities provided by the Fauquier County Water and Sanitation Authority. These districts are areas where the County currently provides or plans to provide public water, wastewater, or both that will accommodate high-density residential and commercial uses. One of these service districts surrounds the Town of Warrenton and encompasses the Annexation Area, as will be discussed below. The Town provides its own public water and wastewater services. While the Town has considered expansion of its boundaries several times in recent years, it has not taken formal action to seek any additional land until this Proposed Agreement.²² The last previous annexation was in 1998.²³

Characteristics of the Annexation Area: Alwington Property

The vast majority of the Annexation Area, and the main subject of the Proposed Agreement, is the northernmost 234 acre portion of an approximately 431 acre parcel owned by Alwington adjacent to the Town's current southern boundary. The 234 acre portion that would

²⁰ 2023 American Community Survey, 1-year estimate.

²¹ 2022 American Community Survey, 5-year estimate.

²² *The VSA Notice*, p. 9.

²³ *Id.*

be annexed is south of Alwington Boulevard and lies along James Madison Highway, which is the southern entrance to the Town. The VSA would allow for the 234 acres of the parent parcel to come into the Town along with the land that lies between it and the current Town boundary, while the remaining 197 acres would not be brought into the Town and would remain part of Fauquier County and subject to its zoning authority.²⁴ The boundary between the 234 acre portion and the remaining 197 acres is the boundary of the County's Warrenton Service District.²⁵

The entire parcel is currently undeveloped and zoned for agricultural use.²⁶ However, there have been several proposals for development of the property, and this particular development plan was originally proposed in 2015, albeit in a different form than the Proposed Agreement.²⁷ The Proposed Agreement builds off of the 2015 rezoning and incorporates proffered development plans from Alwington and Van Metre. The rezoning allows for three different development scenarios: a base zoning of 217 market-rate residential lots with public water and privately-owned sewer system and no commercial developments; Alternative A, with 195 market-rate lots, 16 additional units reserved for affordable housing, a commercial development consisting of an 8,000 square foot eating establishment and a 15 room inn, and an additional 25 acre commercial lot, referred to as "Land Bay W"; and Alternative B, which increases the number of market-rate lots to 254, but is otherwise the same as Alternative A.²⁸ By including the parcel in the Town boundaries, the development will have access to the Town's wastewater system, which will allow it to accommodate additional residential units and a 25 acre land bay for additional commercial development.²⁹ Therefore, alternatives A and B are

²⁴ *Id.*, p. 13; in 2015, the Fauquier County Board of Supervisors approved a subdivision plat for the entire parcel that authorized 10 residential lots on the remaining 224.53 acres. Van Metre plans to develop nine cluster lots on 29.62 acres near the new Town boundary, with the remaining 194.91 acres remaining open. *See The VSA Notice*, p. 12.

²⁵ Fauquier County GIS Dept, FAUQUIER COUNTY, VA Service District Land Use Plans (2021); <https://www.fauquiercounty.gov/home/showpublisheddocument/32304/637526229511400000>

²⁶ *The VSA Notice*, p. 40-41.

²⁷ *Id.*, p. 12.

²⁸ *Id.*, p. 12-13.

²⁹ *Id.*, p. 13; there are no plans for the development of Commercial Land Bay W, as the town wishes to have input on what is developed. *The VSA Notice*, FN25.

contingent upon the inclusion of the property within the Town's boundaries, and alternative B is further contingent upon the Town providing additional water service connections to the property.

The Proposed Agreement assumes that the development will proceed under alternative B, as the Town has agreed to annex the property and add additional connections if Alwington and Van Metre agree to the additional requirements of expanding Alwington Boulevard and reconstructing the Taylor Run Pump Station.³⁰ Van Metre has designed a full residential community with a detailed code of development that was proffered to the County and included in the Proposed Agreement. Under this most intense development scenario, the development of the Alwington property will require approximately 124,000 gallons per day of wastewater treatment.³¹ The Town's current wastewater treatment capacity is 2.5 million gallons per day, and the actual average daily flow to the Town's wastewater treatment plant in 2021 was 1.72 million gallons.³² Therefore, if this development is completed, the average daily flow will increase to approximately 1.84 million gallons per day.

The Annexation Area has already been included in the Joint Planning and Water Service Agreement, which means that the Town will provide water to the Annexation Area as it is developed, even if it stays in the County.³³ Therefore, the Town perceives that the area is appropriate for that public utility. In recent years the Town has also approved significant development along Alwington Boulevard, resulting in the construction of both a Home Depot and a Walmart along the Town's boundary and near the Annexation Area. The children who live in the already existing residential neighborhoods to the west and north of the Annexation Area attend Brumfield Elementary School, Taylor/Warrenton Middle School, and Fauquier High School, as will any students who might live in the residential units to be developed on the Alwington property.

³⁰ See *The VSA Notice*, p. 133.

³¹ *Id.*, p. 27.

³² *Id.*, p. 27-28.

³³ *Id.*, p. 102.

Scope and Standard of Review

The Proposed Agreement was negotiated under § 15.2-3400 of the Code of Virginia, which allows localities to settle interlocal issues through negotiated agreements. However, before localities enact any negotiated agreement, the Commission must review the negotiated agreement and issue an advisory report on “whether the proposed settlement is in the best interest of the Commonwealth.”³⁴ When issuing its advisory report, the Commission is directed “to hold hearings, make investigations, analyze local needs,” and then submit its findings of fact and recommendations to the affected local governments.³⁵ The local governments may then adopt any recommendations before the Proposed Agreement is sent to a special court for ultimate disposition.³⁶ The Commission’s report shall be admissible as evidence in any court proceedings on the VSA, but it shall not be binding upon any court and shall be advisory in nature only.³⁷

The General Assembly encourages local governments to attempt to negotiate settlement of their interlocal concerns.³⁸ One of the statutory responsibilities of the Commission is to assist local governments in such efforts.³⁹ In view of this legislative intent, the Commission believes that proposed interlocal agreements, such as the Proposed Agreement being considered, should be approached with respect and presumption of their compatibility with applicable statutory standards. The Commission notes, however, that the General Assembly requires interlocal agreements to be reviewed by this body prior to their final adoption by the local governing bodies and review by a court.⁴⁰ The Commission is obliged to conclude, therefore, that while interlocal agreements are due respect and should be approached with a presumption of their consistency with statutory standards, such respect and presumption cannot be permitted to render the Commission’s review a *pro forma* endorsement of any proposed settlement. The Commission’s responsibility to the Commonwealth and to the affected localities requires more.

³⁴ Va. Code Ann. § 15.2-3400(3) (2024).

³⁵ Va. Code Ann. § 15.2-3400(3) (2024); 15.2-2907(A) (2024).

³⁶ Va. Code Ann. § 15.2-3400(3) (2024).

³⁷ Va. Code Ann. § 15.2-2904(B) (2024); 15.2-3400 (2024).

³⁸ See Va. Code Ann. § 15.2-3400 (2024).

³⁹ Va. Code Ann. § 15.2-2903(3) (2024).

⁴⁰ Va. Code Ann. § 15.2-3400(3) (2024).

This Proposed Agreement, as noted previously, is the product of negotiations by the Parties and incorporates a rezoning and proffered development conditions that have already received multiple rounds of public feedback and approvals by the County. Its main provision is an annexation that brings property into the Town in exchange for a commitment to rebuild a sewage pump station and access to public utilities that allow for higher-density development and multiple commercial parcels. When applying the "best interest of the Commonwealth" standard of review to voluntary settlement agreements like the Proposed Agreement that contain a mixture of annexation and other provisions, the Commission considers "whether the agreement will be beneficial to the orderly growth and continued viability of the localities, whether it would promote strong and viable units of government, and whether there are ramifications of the proposed annexation for other parties and the Commonwealth."⁴¹ This standard is derived from the stated purpose of voluntary settlement agreements in § 15.2-3400 of the Code of Virginia, the court's standards of review, and Commission precedents.⁴² Applying this standard to this Proposed Agreement, the Commission therefore finds it necessary to consider whether the VSA is in the best interest of the localities and their citizens.⁴³

Findings of Fact

This Proposed Agreement is an agreement between the Town, County, owner, and potential developer to permit and build a high-density, planned residential and commercial development in the small-but-growing Town of Warrenton. The terms of the development were proffered to the County by the developer, but the most intense development scenario requires the

⁴¹ Comm. on Local Gov't, Report on the Town of New Market - Shenandoah County Voluntary Settlement Agreement, May 2023, at 8-9; <https://www.dhcd.virginia.gov/sites/default/files/Docx/clg/voluntary-settlement-agreement/final-report-new-market-%26-shenandoah-wtih-appendix.pdf>

⁴² See, e.g., Id; Comm. on Local Gov't, Report on the City of Emporia - County of Greenville Annexation Agreement, May 1983, at 15-16, <https://www.dhcd.virginia.gov/sites/default/files/Docx/clg/voluntary-settlement-agreement/city-of-emporia-county-of-greenville-annexation-agreement-may-1983.pdf>; Comm. on Local Gov't, Report on the Town of Grottoes – Augusta County Voluntary Settlement Agreement, January 2010, at 6, <https://www.dhcd.virginia.gov/sites/default/files/Docx/clg/voluntary-settlement-agreement/town-of-grottoes-county-of-augusta-voluntary-settlement-agreement-january-2010.pdf>

⁴³ Comm. on Local Gov't, Report on the Town of Leesburg- Loudoun County Voluntary Settlement Agreement, April 2024, at 14; <https://www.dhcd.virginia.gov/sites/default/files/DocX/clg/town-of-leesburg/final-clg-leesburg-loudoun-vsa-report-withappendix-4.30.24.pdf>

property to be annexed into the Town. The Proposed Agreement reflects the most intense development scenario requiring access to public water and wastewater systems. Such access will necessitate upgrades to the Town’s wastewater system. The density of the residential and commercial development will add additional burdens on the schools, roads, and other public services. Therefore, the Commission believes it is most important to consider the impact of the VSA on the Town and its citizens, and less important to focus on the County, owner, and developer, who have already agreed to the proffered development conditions and believe those limitations are in their best interests. With this emphasis in mind, the Commission must review the impacts of the Proposed Agreement under the “best interest of the Commonwealth” standard by providing findings of fact and recommendations. The findings of fact are provided in this section, and the analysis of whether the Proposed Agreement is in the best interest of the Commonwealth is provided in the next section.

a. Impact on the Town

i. Ability to provide public wastewater service

As noted above, the Proposed Agreement is projected to add approximately 124,000 gallons per day of sewage treatment to the Town’s wastewater system when fully developed. This will increase the current average daily flow to 1.84 MGD, which is still within the capacity of the Town’s current sewage treatment plant of 2.5 MGD. However, at the Commission’s public hearing, several residents noted that while this development on its own can be accommodated, the cumulative impact of all approved projects in the Town will result in more sewage flow than the current wastewater treatment plan can process.⁴⁴

This assertion is confirmed by the Town’s own Water and Sewer System Capacity Evaluation, (“WRA Report”) which it commissioned from Whitman, Requardt and Associates (WRA) in 2022 and included as Appendix B. The WRA Report calculated “cumulative wastewater loading by addition of the demand created by... named developments,” both commercial and residential, that were identified as in progress or approved by the Town’s

⁴⁴ *Minutes of Public Hearing*, COMM. ON LOCAL GOV’T, September 16, 2024 (specifically remarks from Cindy Burbank and David Horden).

Community Development Department.⁴⁵ The WRA Report concluded that, if the plant is not improved or expanded, the projection is that sewage will exceed capacity in 2034.⁴⁶ However, the WRA report also concluded that “the Town of Warrenton has adequate water supply capacity and wastewater treatment capacity to accommodate the new housing and commercial developments identified by the Community Development Department” up until 2039 as long as the treatment plant’s capacity is expanded to 3.0 MGD.⁴⁷ This projection assumes that all planned development is built by 2040, which is the expiration date of the current comprehensive plan.⁴⁸

The WRA Report also notes that water entering the sewage system through infiltration and inflow (I & I) is high in Warrenton at .92 MGD, or 49% of total flows treated at the plant.⁴⁹ I & I accounts for water in the sewage system that is not provided to residents and businesses through the water system.⁵⁰ It is caused by “water discharged directly into the wastewater system through basement and foundation drains, roof downspouts, manhole covers, cross connections with stormwater systems and other direct connections.”⁵¹ I & I is highest in localities with aging wastewater collection infrastructure, which includes Warrenton.⁵² Therefore, any improvements to the Town’s infrastructure will reduce the amount of I & I, and subsequently, the amount of sewage that needs to be treated.

The Commission has no reason to doubt the findings of the WRA Report. The findings of the report were further validated by additional evidence provided by the Town. In emails to the Commission with additional evidence and answers to follow-up question after the presentations and hearings, the Town provided the following information: ⁵³

⁴⁵ Whitman, Requardt & Associates, TOWN OF WARRENTON – WATER AND SEWER SYSTEM CAPACITY EVALUATION UPDATE [hereinafter *WRA Report*] 13 (2022). The report is included as appendix B.

⁴⁶ Id at 13.

⁴⁷ Id at 1, 13.

⁴⁸ Id at 13.

⁴⁹ Id at 6.

⁵⁰ Id at 5.

⁵¹ Id.

⁵² Id at 6.

⁵³ The Town’s full responses to the Commission’s requests for additional information are included as Appendix A. All additional documents provided by the Town to support its answers are on file with the Commission.

- The Town has already begun the process of repairing, replacing, and modernizing the Wastewater Treatment Plant. It is currently in the third year of a six-year capital improvement plan that will bring the plant to current standards and increase its capacity to 3.0 MGD.
- The only obstacles to increasing the capacity of the existing plant to 3.0 MGD are (1) a modification to the Town's next discharge permit (regulated by the VA Department of Environmental Quality) to 3.0 MGD and (2) completion of the planned capital improvements.⁵⁴
- The Town does not anticipate any objection from regulators to modifying its discharge permit. The Town has determined that the capacity of the receiving stream, an unnamed tributary to Great Run in the Rappahannock watershed with a 1.9 square mile drainage area, can handle the increase in the wastewater discharge.
- There is a projected increase in user rates over a five-year period to address the cost of remediating the Town's aging treatment plant, increase the capacity, and address deferred maintenance.

Based on the WRA Report and the Town's ongoing plan to improve its wastewater system, the Commission is reasonably confident that the Town can absorb the impact of this Proposed Agreement and the other planned developments in the Town.

ii. Impact of the Developer's Concessions to the Town

The County's November 2023 rezoning of the Alwington property, in conjunction with the existing Joint Planning and Water Service Agreement between the Town, County, and Alwington Farm Developers, LLC, allows Van Metre to develop 217 market rate lots with public water, private wastewater, and no commercial development.⁵⁵ This can be done by-right in the County without the adoption of the Proposed Agreement. In order to increase the density of the residential development and add commercial uses, Van Metre proposed that the property

⁵⁴ A citizen of the Town suggested that there was an existing covenant on the land that limits the capacity of the existing plant to 2.5 MGD (email from David Norden, Appendix A). The Town provided the Commission a Deed of Release of the restrictive covenant which is on file with the Commission.

⁵⁵ *The VSA Notice*, p. 102.

be annexed into the Town, and the Town agreed on the condition that Van Metre, at its own expense, expand Alwington Boulevard and rebuild the aging Taylor Run Pump Station, which is approaching the end of its useful life.

These benefits have significant value to the Town. While Alwington Boulevard would need to be expanded under the County's rezoning, that rezoning did not call for the road to be expanded,⁵⁶ and the Town will soon have to replace the Taylor Pump Station at its own expense.⁵⁷ The Town has budgeted \$5.35 million in its capital improvement plan to replace the pump station by July of 2028, which means that Van Metre is providing a minimum of \$5.35 million in improvements for which the Town would otherwise eventually have to pay for in addition to the cost of expanding Alwington Boulevard.

b. Impact on Citizens of the Town and County

The main impact of this development on the citizens of the Town and County is the provision of more housing. In presentations to the Commission, Van Metre noted that, in 2011, the largest age demographic in the County was 45-54 years of age at 18.2%, and by 2022, that number had dropped closer to the statewide average of 12.5 percent, with age 35-44 becoming the largest, as noted in Table 1.⁵⁸ The stated goal of this development is therefore to provide housing for those aged 35-44 in the County in the hopes of reversing those observed demographic trends. While it is beyond the scope of this report to validate Van Metre's hypothesis that a specific age demographic will find this housing attractive, the Town has previously grown rapidly, and that pace of growth has slowed in the past decade. Therefore, housing construction likely will be a boon to citizens of the Town and County who are seeking to remain in the localities as each jurisdiction, in its own way, seeks to accommodate and manage its population growth through the approval of development projects such as this one.

Financial impacts of the Proposed Agreement on the citizens of the Town due to increased water and sewer usage rates to cover the costs of improving and expanding the Town's

⁵⁶ See Gorov Slade, TRAFFIC IMPACT STUDY ARRINGTON DEVELOPMENT (REZN-22-01798) 7 (2023) (on file with the Commission).

⁵⁷ See the VSA Notice, p. 14.

⁵⁸ Minutes of the July 23, 2024 Regular Meeting, COMM. ON LOCAL GOV'T, July 23, 2024 (presentation from Roy Barnett is on file with the Commission).

wastewater system are uncertain. As noted above, the Town has been improving and expanding its wastewater treatment plant since before this Proposed Agreement was approved by the Parties. Furthermore, as the WRA Report makes clear, the Town will need to complete these improvements by 2034 regardless of whether this Proposed Agreement is adopted because of other planned development in the Town. Since the costs of improvement are necessary, already included in a capital improvement plan, and will need to be accomplished regardless of this Proposed Agreement, any increases in rates for sewer improvements cannot be directly attributed to this particular development.

While speculative, the Parties suggested in the notice that the Town would use the increases in tax revenues to offset the costs of some of these improvements:

There is not a municipality in Virginia the size of Warrenton that could not benefit from an increase in tax revenue. [The Town] will need to expand its wastewater treatment plant within the next decade, and will very likely require additional monies to cover bond payments, and the additional revenue from growth will be valuable for that purpose.⁵⁹

While the political question of what the Town will do with additional revenues from new water and sewer customers is beyond the scope of this report, the Commission believes it is reasonable to expect that the Town will use the increased enterprise fund revenue from the development to offset increased operating expenditures as well as the costs of future capital improvements, which may result in lower rate increases for the Town's citizens than if the Proposed Agreement were not accepted.

c. Impact on the County

The impacts on the County of the Proposed Agreement include increased tax revenue and less environmental harm when compared to the base development that is currently allowed in the County under the November 2023 rezoning. The County's sales and real estate tax revenue, which it shares with the Town, will increase due to both the development of more residential units and the Commercial lots. The environmental impact on the County will be greatly reduced if the development is included in the Town's wastewater system because the by-right

⁵⁹ *The VSA Notice*, p. 37.

development would be on a privately-owned septic system with primary and reserve drainage fields that would discharge untreated water directly into the watershed. By adding the development to the Town's wastewater system, the streams are better protected, and larger environmental issues will be avoided. Ultimately, by including the proffers to the County in the Proposed Agreement, the County is getting a high-quality, well-planned development that is consistent with its comprehensive plan and located within one of its designated service districts.

Analysis and Recommendations

When considering proposed agreements that contain annexation provisions, the Commission considers whether the proposed agreement is beneficial to the orderly growth and continued viability of the localities, whether it would promote strong and viable units of government, and whether there are ramifications of the proposed annexation for other parties and the Commonwealth.⁶⁰ Even with the important concerns raised by citizens noted above, the Parties have presented an agreement that meets all three components of this test.

a. Orderly Growth and Continued Viability of the Town and County

This VSA promotes the orderly growth of the Town and County by providing for the productive use of land, increased tax revenue, and funding for improvements to key services that otherwise would have to be provided by the localities. The Proposed Agreement envisions a well-planned commercial and residential community on land that has been identified by the Town for potential incorporation and by the County for development through inclusion in the Warrenton Service District. This productive use is essential to the ordered growth in and around the Town that the localities desire. The Proposed Agreement will also contribute to continued viability through increased tax revenue and needed improvements to public infrastructure through proffers and concessions. Through the provisions of the proffers to the County and its contributions in the Proposed Agreement, Van Metre is contributing to the continued viability of both localities by making upgrades to key services such as water, wastewater, and schools in the

⁶⁰ Comm. on Local Gov't, Report on the Town of Leesburg- Loudoun County Voluntary Settlement Agreement, April 2024, at 13-14; <https://www.dhcd.virginia.gov/sites/default/files/DocX/clg/town-of-leesburg/final-clg-leesburg-loudoun-vsa-report-withappendix-4.30.24.pdf>

Town and County, which makes the provision of these services more affordable for the citizens in the long-run.

b. Promoting Strong and Viable Unity of Local Government

For similar reasons, the Proposed Agreement will also help the localities remain strong and viable units of local government. While plans for growth of the Town are a political question that is beyond the scope of this report, many rural regions of the Commonwealth are affected by changing demographics and an aging population. As these demographics shift, both localities have identified a need to provide housing and other services for younger age demographics to discourage them from moving away from the area. Therefore, productive use of land for housing is needed to meet the needs of these shifting demographics. The Town must continue to provide water and wastewater service to remain viable, and increased revenue for its utilities may be used to fund further capital improvements to the Town's aging wastewater system. Capital Improvements funded in the Town's 6-year plan will reduce infiltration into the aging system, further extend its life, and lower the potential rate impact to citizens of future improvements.

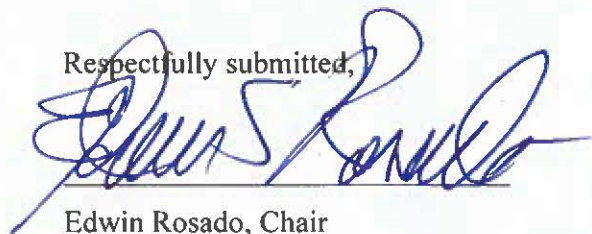
c. Ramifications for Citizens of the Town

As to the effect of the Proposed Agreement on the citizens of the Town, the Commission notes the benefits, such as reduced environmental impact, affordable housing, pedestrian access, and others, that the higher-density development will provide directly and indirectly to the citizens. Ultimately, however, the Commission believes that the findings of the WRA Report are most compelling. The Town clearly has deferred maintenance that needs to be addressed in the system overall and planned maintenance on the Taylor Pump Station that will have to be paid for by citizens. Not only has the Town acknowledged this in its responses to the Commission and its Capital Improvement Plan, but the WRA Report also highlights the age of the system and the high amount of infiltration and inflow. If Van Metre is willing to pay for improvements to Town infrastructure that the citizens would eventually have to pay regardless of this VSA, then it will benefit the Town and its citizens because those costs will not end up falling back on the ratepayers and increasing water and wastewater rates to pay for deferred maintenance and upgrades in the future.

Conclusion

Based on the findings of fact and analysis above, the Commission finds that the Proposed Agreement is in the best interest of the Commonwealth as written. However, this case presents unique circumstances for the Town's citizens because the development was initially planned, reviewed, discussed, amended, and ultimately approved by the County without input from the Town. And yet it is dependent upon the Town's agreement to the Annexation. Therefore, as this Proposed Agreement and the development moves forward, the Commission encourages the Town to continue its open dialogue with citizens so that they may better understand the County's reasoning for initially approving the project and the Town's reasoning for accepting it. Additionally, the Town should continue funding and implementing improvements to the wastewater system so that all future development within the Town can adequately be served.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Edwin Rosado', is written over a horizontal line.

Edwin Rosado, Chair

Appendix A

Additional evidence, testimony, and responses to questions received by
the Commission after the public hearing

My name is G. Robert Lee. I was Fauquier County Administrator for approximately 15 years beginning in 1990. I have also served on the Fauquier County Planning Commission as the Marshall District Commissioner since 2011. During my tenure as County Administrator and Planning Commissioner I have been engaged in discussion and consideration of the Arrington property in the Marshall District for more than two decades and there have been several iterations of plans and proposals for the Arrington property in the Warrenton Service District. The Voluntary Settlement Agreement for Town of Warrenton boundary adjustment enabled by the Code of Virginia definitively represents the best Arrington human settlement pattern of all the Arrington property proposals. I commend the Town, the County, and the Van Metre Communities for this collaborative endeavor to address the location and character of new development in the Warrenton Service District. This process is truly a model for cooperative planning by the County and the Town that constitutes the County seat of government.

GRL 9/16/24



KEVIN T. CARTER
Fauquier County Board of Supervisors
Center District
52 Old Orchard Lane
Warrenton, VA 20186
PH: (540) 422-8020
FX: (540) 422-8022
kevin.carter@fauquiercounty.gov

September 16, 2024

Virginia Commission on Local Government
c/o LeGrand Northcutt
600 East Main Street, Suite 300
Richmond, Virginia 23219

Hand delivered to COLG meeting on September 16, 2024

Re: Voluntary Settlement Agreement Between Fauquier County, Virginia
and Town of Warrenton, Virginia

Dear Commission Members and Mr. Northcutt:

In May of 2024, Fauquier County, Virginia jointly submitted a proposal for a voluntary settlement agreement of boundary lines with the Town of Warrenton, Virginia along with the developers of the property Van Metre Communities LLC, Alwington Farm, LLC, and Alwington Farm Developers, L.L.C. (hereinafter "developers").

This submission followed a lengthy zoning process of the property that resulted in a rezoning with proffers by the Fauquier County Board of Supervisors on November 9, 2023. The decision to rezone the property was not taken lightly or hastily. I participated in that process and the results are before the Commission today: a proffered rezoning with an option to seek to be brought into the Town of Warrenton through this voluntary settlement agreement process, subject to a commitment to develop in accordance with the concept development plans approved by the County in the 2023 rezoning. This proposed adjustment strikes a good balance and is mutually beneficial to both the County and the Town.

As the Center Magisterial District Supervisor, I support this boundary line adjustment through this voluntary settlement agreement process and am

Very truly yours,

Kevin T. Carter
Center District Supervisor

cc: Board of Supervisors



Arrington VSA

From Carter Nevill <carter.nevill@icloud.com>

Date Mon 9/16/2024 7:25 PM

To Northcutt, Legrand (DHCD) <legrand.northcutt@dhcd.virginia.gov>

Comminioners,

I am writing as a citizen of the town of Warrenton, a town business owner, and individually as the mayor of the town of Warrenton. I wish to lend my voice in full support of this voluntary annexation as has been painstakingly worked out between the town and county. This annexation more than anything is a benefit to the taxpayers of both entities, especially given the agreement for a commercial bay. If the annexation were to fail, it is more than probable that the rooftops will explode to well over 300 units by right. This would burden county residents (of which town taxpayers are themselves) as well as town taxpayers who will subsidize the impact of this peripheral growth on the town's infrastructure and services.

I urge you to please approve this VSA in the interests of the fiscal resiliency and community strength of both the town of Warrenton and the county of Fauquier.

Thank you for your consideration.

Carter Nevill
159 High St
Warrenton, VA

Sent from my iPhone



Outlook

9-16-24 Hearing - Arrington Property

From David Norden <David@hsnaia.com>**Date** Mon 9/23/2024 12:46 PM**To** Northcutt, Legrand (DHCD) <Legrand.northcutt@dhcd.virginia.gov>

Dear Mr. Northcutt and Commissioners,

I spoke at the Hearing on September 16th, but was asked to follow up with written comments. My name is David Norden and I served on the Warrenton Town Council from 1998 to 2014. Twelve of those years I was Vice-Mayor and for all sixteen years I was the Chairman of the Utilities Committee. I know a fair amount about our water and wastewater treatment plants. My biggest concern about bringing this large parcel into the Town is the ability to provide it with sewer service and what the ultimate cost to town taxpayers may be. Our current plant is maxed out at 2.5 million gallons per day. It is also under a deed restriction not to exceed that amount by the family who donated the property to the town for the construction of the plant decades ago. It also discharges into a tributary that is far too small by current standards. We are currently grandfathered, but at what point will that no longer be granted and the town forced to build another treatment plant downstream and pipe our effluent to it? The cost of something like this could never be bore by citizens of Warrenton, nor should it. If we live within our means and do not expand our borders, we won't risk this catastrophic possibility.

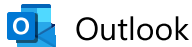
The current Town Council seems hell bent on making this happen and is working to buy the family out of their deed restriction so they can raise the plant output to 3 million gallons per day. I have heard they are paying \$1 million to this. Then there is the cost of expanding the plant, an expense I can't even imagine, but certainly far exceeding the cost benefit to the taxpayers for doing this deal. A number of the Council members supporting this boundary adjustment are going off the Council and starting January 1, 2025 we will have new members who are not so quick to rush into this deal and increase in density and commercial development. This development as laid out by the county is a good development and should just be left in the county to be executed.

I would ask that you consider denying this request or at least delaying it until the new members of Town Council can be involved.

Thank you for your time,
David

PS – Mr. Northcutt, would you please let me know that you have received this message and will deliver it to all of the Commissioners or let me know if I need to do anything else.

David A. Norden, AIA
Managing Partner
Hinckley, Shepherd, Norden, Architects
19 Winchester Street
Warrenton, Virginia 20186
Tel 540-347-4232
www.hsnaia.com



FW: CLG Questions

From Stephen Clough <sclough@warrentonva.gov>

Date Mon 9/16/2024 3:29 PM

To Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Legrand, please see the answers from our Utilities director below.

Stephen Clough, CMC

Town Clerk, FOIA Officer

Town of Warrenton, VA



21 Main Street
Warrenton, VA 20186
M: (540)-714-9270
warrentonva.gov

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From: Steven Friend <sfriend@warrentonva.gov>

Sent: Monday, September 16, 2024 3:21 PM

To: Stephen Clough <sclough@warrentonva.gov>

Subject: RE: CLG Questions

Please See my answers below in bold.

Thank you,
Steven

From: Stephen Clough <sclough@warrentonva.gov>

Sent: Monday, September 16, 2024 1:18 PM

To: Steven Friend <sfriend@warrentonva.gov>

Subject: CLG Questions

Mr. Friend,

First, thank you for your availability with such short notice this afternoon. Mr. NorthCutt has requested an email follow up to include in the documentation for the CLG meeting. If you could please provide the answers to the commissioner's questions listed it would be greatly appreciated.

When was the last rate study for the Water Sewer fund? **Began in 2022, completed in 2023**

What is the multiplier for service district access to water / sewer (we provided the link on the website) **Link is on website, a 1.5 multiplier is added to out-of-Town customers.**

<https://www.warrentonva.gov/255/Current-Rates>

What are best practices for water sewer rate studies? How often are they triggered? Is it a change in growth patterns, is it capital expenses? **The best practice standard time frame for a rate study update is 5 years. Recently, our financial advisors have recommended that we consider another update in 3 years due to the size of our CIP. We work in conjunction with our financial advisors to review actual revenue and expense trends. Any significant change in those trends may also necessitate a rate study update. Significant growth would also trigger the need for an evaluation of the system and the rates.**

Thank you for your assistance with this.

Stephen Clough, CMC

Town Clerk, FOIA Officer

Town of Warrenton, VA



21 Main Street
Warrenton, VA 20186
M: (540)-714-9270
warrentonva.gov

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RE: Warrenton - Fauquier County VSA - Request from COLG regarding water and sewer capacity

From Roy Barnett <rbarnett@vanmetreco.com>

Date Wed 9/18/2024 3:27 PM

To Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Cc Gallehr, Tracy <tracy.gallehr@fauquiercounty.gov>; Martin R. Crim (mcrim@sandsanderson.com) <mcrim@sandsanderson.com>; Foote, John <jfoote@thelandlawyers.com>; Nyan, Starr <snyan@thelandlawyers.com>; Tom Marable <TMarable@VanMetreLand.com>

 2 attachments (1 MB)

Town of Warrenton – Water and Sewer System Capacity Evaluation Update - 12062022.pdf; Staff Report - Water and Sewer System Capacity Evaluation Update - 12122022.pdf;

Good afternoon, LeGrand - In follow up to the COLG meeting on Tuesday morning, I have attached a copy of the Town of Warrenton – Water and Sewer System Capacity Evaluation Update completed in December 2022. Please note that the proposal for development of Arrington included 377 residential units at the time of the study. During review of the Arrington development, the density of Arrington was reduced by 28% to a maximum of 270 residential units. The corresponding reduction in sewer flow from the reduction in the number of residential units was offset by adding the 25 acres of commercial. The net result was a small increase in total Arrington sewer flow from 0.11 MGD to 0.12 MGD. Also note that the report includes the following statement in regard to the various charts and graphs listing projects: "The order or chronology of the projects is not definitive". As part of the Arrington efforts, we have now completed the first draft of a Preliminary Engineering Report for the replacement of the Taylor Pump Station and submitted to the Town of Warrenton for review as recommended in the 2022 study.

Please advise if you need any other details

Roy

Roy Barnett
Group President, Land Acquisition Planning Development
Van Metre Companies
D: +1 703-425-2614 M: +1 (703) 898-4971
RBarnett@VanMetreCo.com
9900 Main Street, Suite 500 Fairfax, VA 22031

Van Metre





Re: Warrenton - Fauquier County VSA - Request from COLG regarding TIA

From Roy Barnett <rbarnett@vanmetreco.com>

Date Wed 9/18/2024 4:16 PM

To Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Cc Gallehr, Tracy <tracy.gallehr@fauquiercounty.gov>; Martin R. Crim (mcrim@sandsanderson.com) <mcrim@sandsanderson.com>; Foote, John <jfoote@thelandlawyers.com>; Nyan, Starr <snyan@thelandlawyers.com>; Tom Marable <TMarable@VanMetreLand.com>

 2 attachments (17 MB)

TIA - July 07 2023 - Based on 370 Residential Units.pdf; Article 3 Zoning Districts 2021.08_202110041021195527.pdf;

Good afternoon, LeGrand - In follow up to the COLG meeting on Tuesday morning, I have attached a copy of the last TIA submitted to Fauquier County (without attachments) dated July 6, 2023. Please note that this TIA is based on the development of 377 residential units plus a restaurant and 15 room inn on the Arrington property. The final approvals for Arrington include a maximum of 270 residential units - a reduction of 107 residential units (28%). The offset of the trips per day associated with the 107 residential units reduction was viewed as being offset by the addition of the 25 acres of Commercial. Further, the approval of any of the more traffic-intense uses permitted in the C Commercial District (listed in Section 3-4.10.3. of the Town Zoning Ordinance and shown on pages 30 and 31 of the attached copy of Article 3) requires submission of a special use permit which is reviewed and either approved or disapproved under a separate legislative process by Town Council. The Special Use Permit submission requirements include the requirement to prepare and submit "An analysis of the impact on the Town's transportation network and the ability of adjacent streets and intersections to efficiently and safely move the volume of traffic generated by the development, along with estimates of cost and means of providing improvements required to service the proposed special use."

In addition to the foregoing, the zoning approvals for Arrington include a requirement for two lanes (plus turn lane) for the extension for Alwington Boulevard but, in acknowledging the potential for additional traffic, we added the requirement for Arrington to construct the extension of Alwington Boulevard to a 4-lane divided (with turn lanes) road section from Home depot to the Commercial Land Bay (Phase 1) in the VSA.

Please advise if you need any additional information.

Roy

Roy Barnett
Group President, Land Acquisition Planning Development
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D: +1 703-425-2614 M: +1 (703) 898-4971
RBarnett@VanMetreCo.com
9900 Main Street, Suite 500 Fairfax, VA 22031





Glenn Youngkin
Governor

Caren Merrick
Secretary of
Commerce and Trade

COMMONWEALTH of VIRGINIA

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Bryan W. Horn
Director

To: Martin Crim, Town Attorney, Town of Warrenton

From: Commission on Local Government Staff

Subject: Request for Additional Materials Regarding the Voluntary Settlement Agreement between the Town of Warrenton and Fauquier County

Date: September 23, 2024

Mr. Crim,

Thank you for hosting the Commission on Local Government for the site visit and presentations in Warrenton last week. Pursuant to 1VAC50-20-390N, the Commission is requesting responses to the following questions regarding the Town's water and sewer systems along with any reports or other materials that you believe are relevant to answering the following questions:

1. Does the Town currently have plans to upgrade its existing sewage treatment plant? If so, what would each proposed upgrade do? How much would each upgrade cost? Why is each upgrade important to the Town? What is the implementation schedule for each upgrade?
2. Does the Town currently have plans to increase the capacity of its existing sewage treatment plant or of the entire system with an additional treatment plant? How much would the plan to increase the capacity cost? What is the implementation schedule for increasing the capacity?
3. What are the obstacles to increasing the capacity of the existing plant and/or for the system as a whole?
4. What impact, financial or otherwise, would increasing the capacity of the sewage system in the Town have on the Town's water and sewer customers?
5. When does the existing Taylor Run pump station need to be replaced, and what is the current estimated cost for doing so?
6. At the public hearing, the Commission heard testimony that the existing sewage treatment plant discharges effluent into a body of water that cannot support the current amount of discharge and that the Town's current discharge is grandfathered. What is the maximum amount of effluent that is allowed to be discharged into that



body of water under current law? What amount does the Town currently discharge?
Does the body of water have the capacity to take on the additional discharge created by any expansions of the existing sewage treatment plant?

7. At the public hearing, the Commission heard testimony that there is a deed restriction on the property where the existing sewage treatment plant sits. Please provide evidence of such deed restriction, if it exists. Does the Town have plans to attempt to remove the deed restriction?

Please provide responses by the close of business Friday, September 27th, and provide a copy of your responses and any supporting materials to Ms. Galleher and Mr. Foote. If you have issues with this deadline, please let us know as soon as possible. Additionally, if you need to use a large file electronic transfer, we can arrange one for you.

Sincerely,



W. LeGrand Northcutt

Commission on Local Government Staff





RE: Request for additional information from the CLG

From Crim, Martin R. <mcrim@sandsanderson.com>

Date Tue 10/8/2024 4:44 PM

To Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Cc Gallehr, Tracy (tracy.gallehr@fauquiercounty.gov) <tracy.gallehr@fauquiercounty.gov>; Foote, John <jfoote@thelandlawyers.com>; Sawyer, Chase (DHCD) <Chase.Sawyer@dhcd.virginia.gov>

Legrand,

There is no scope of work for the replacement Taylor Run Pump Station; we are working under the proffers on the property from the developer of Arrington. Van Metre has proposed abandoning the Taylor Pump Station, but the matter is still under discussion. Another option is for the Town to take the current Taylor Run Pump Station offline and convert it into a gravity flow facility. There is currently no cost projection for this work. The Town would still own the property and maintain the new gravity system if that is what we end up doing. The Town and the developer will need to work out these details as part of the development process.

As for the WWTP capacity (per your other email of today), the limiting factor is the VPDES permit. If DEQ approves an upgrade in capacity to 3.0 MGD, the WWTP will be able to handle that after the proposed capital improvements are complete.

--Martin



Martin R Crim

Attorney

Sands Anderson PC

10432 Balls Ford Road, Suite 300 Manassas, VA. 20109

Direct: (703) 663-1720

www.sandsanderson.com | mcrim@sandsanderson.com | [Bio](#) | [vCard](#)

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From: Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Sent: Monday, October 7, 2024 3:54 PM

To: Crim, Martin R. <mcrim@sandsanderson.com>

Cc: Gallehr, Tracy (tracy.gallehr@fauquiercounty.gov) <tracy.gallehr@fauquiercounty.gov>; Foote, John <jfoote@thelandlawyers.com>; Sawyer, Chase (DHCD) <Chase.Sawyer@dhcd.virginia.gov>

Subject: Re: Request for additional information from the CLG

Hi Martin,

As a follow up to the questions below, the Commissioners had one more question for the Town. Assuming that the VSA is approved and the Taylor Run Pump station is moved, are there currently plans to remediate the current site by the school? If so, what do those plans look like? Any details you might currently have would be appreciated-- would this be contracted out, how

much would it cost, what would the space become, any other relevant information. If not, who would own the site?

Please keep Tracy and John copied on your reply, and let me know if you have a problem responding by the end of the week. There is no particular rush on getting this information.

Thanks,

LeGrand

W. LeGrand Northcutt, J.D.

Senior Policy Analyst

Virginia Department of Housing and Community Development

804-310-7151 (cell)

legrand.northcutt@dhcd.virginia.gov

Please note that my regular work hours are 7:30 am - 6:00 pm, Monday through Thursday.

From: Crim, Martin R. <mcrim@sandsanderson.com>

Sent: Thursday, September 26, 2024 11:42 AM

To: Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Cc: Gallehr, Tracy (tracy.gallehr@fauquiercounty.gov) <tracy.gallehr@fauquiercounty.gov>; Foote, John <jfoote@thelandlawyers.com>; Sawyer, Chase (DHCD) <Chase.Sawyer@dhcd.virginia.gov>

Subject: RE: Request for additional information from the CLG

Thanks, Legrand. Please see the attached documents and the responses and links below in response to the Commission's request for additional materials, which I repeat for convenience, followed by answers in **bold**.

1. Does the Town currently have plans to upgrade its existing sewage treatment plant? If so, what would each proposed upgrade do? How much would each upgrade cost? Why is each upgrade important to the Town? What is the implementation schedule for each upgrade?

The Town has already begun the process of repairing, replacing, and modernizing the Wastewater Treatment Plant (WWTP). We are currently in the third year of the ongoing plan to bring the outdated plant to current standards.

Upgrades are important because the facility is struggling to maintain current daily operations due to aged and failing, end of life equipment. In short, these required upgrades/improvements are a result of deferred maintenance over the years. Attached as a PDF is the portion of the current CIP for utilities (Town of Warrenton 2025-2030 Water and Sewer Capital Improvement Plan). It addresses the purposes, costs, and implementation schedule for each upgrade.

The entire current adopted CIP is available [at this link](#). Town Council adopted the CIP on [June 11, 2024 by RES-24-05-01, which was part of Town Council agenda item II.F.b.](#)

2. Does the Town currently have plans to increase the capacity of its existing sewage treatment plant or of the entire system with an additional treatment plant? How much would the plan to increase the capacity cost? What is the implementation schedule for increasing the capacity?

No, there are no plans for an additional sewage treatment plant currently. The planned WWTP improvements will result in a capacity increase to 3.0 MGD for the existing WWTP facility in the long run, projected to occur after the next renewal of the Town's VPDES permit. The Town's current permit (VA0021172) is attached and is valid between September 1, 2022 and August 31, 2027.

3. What are the obstacles to increasing the capacity of the existing plant and/or for the system as a whole?

The only obstacles to increasing the capacity of the existing WWTP are (1) a modification to the Town's next VPDES permit and (2) completion of the planned capital improvements.

4. What impact, financial or otherwise, would increasing the capacity of the sewage system in the Town have on the Town's water and sewer customers?

None; the projected increase in user rates over a five-year period is due to the cost of remediating the Town's aging WWTP and addressing deferred maintenance.

5. When does the existing Taylor Run pump station need to be replaced, and what is the current estimated cost for doing so?

The Taylor Pump Station is slated to be replaced in FY-2027 and is currently estimated to cost 5.3 million dollars as outlined in our CIP (attached).

6. At the public hearing, the Commission heard testimony that the existing sewage treatment plant discharges effluent into a body of water that cannot support the current amount of discharge and that the Town's current discharge is grandfathered. What is the maximum amount of effluent that is allowed to be discharged into that law? What amount does the Town currently discharge? Does the body of water have the capacity to take on the additional discharge created by any expansions of the existing sewage treatment plant?

The testimony to which you refer was unsupported by any factual analysis. Attached is the Town's current VPDES permit VA0021172, which shows on pages 4 and 5 of the PDF that the design flow is 2.5 MGD and the allowed discharge flow to the receiving stream is unlimited (see highlighted text). The current discharge from the WWTP is 1.7 MGD based on the annual average.

The receiving stream is an unnamed tributary to Great Run in the Rappahannock watershed. Attached is the USGS Stream-Stats report showing the 1.9 square mile drainage area and the modeled low-flow and peak-flow for the stream. The permit discharge limit of 2.5 MGD equates to a flow contribution of 3.87 cubic feet per second (cf/s). Increasing the WWTP limits from 2.5 to 3.0 MGD would equate to 4.6 cf/s. The range of the unnamed tributary's peak flow shown on page 4 of the USGS Stream-Stats report goes from 217 cubic feet per second for a 50-percent AEP* flood (i.e., from a rain event expected once every two years on average) to 2890 cubic feet per second for a 0.5-percent AEP flood (i.e., from a rain event expected once every 200 years on average). These peak-flow figures show that the WWTP discharge is a minor contributor to the peak-flow of the unnamed tributary.

*** AEP stands for Annual Exceedance Probability.**

7. At the public hearing, the Commission heard testimony that there is a deed restriction on the property where the existing sewage treatment plant sits. Please provide evidence of such deed restriction, if it

exists. Does the Town have plans to attempt to remove the deed restriction?

That information was out of date. Attached is the recorded Deed of Release of Restrictive Covenant WWTP which shows the release of the referenced covenant.



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From: Northcutt, Legrand (DHCD) <LeGrand.Northcutt@dhcd.virginia.gov>

Sent: Monday, September 23, 2024 5:15 PM

To: Crim, Martin R. <mcrim@sandsanderson.com>

Cc: Gallehr, Tracy (tracy.gallehr@fauquiercounty.gov) <tracy.gallehr@fauquiercounty.gov>; Foote, John <jfoote@thelandlawyers.com>; Sawyer, Chase (DHCD) <Chase.Sawyer@dhcd.virginia.gov>

Subject: Request for additional information from the CLG

CAUTION: External Message

Hi Martin,

Please see the attached letter from the Commissioners requesting additional information from the Town after last week's hearings. As always, let me know if you have any questions.

Thanks,

LeGrand

W. LeGrand Northcutt, J.D.

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Please note that my regular work hours are 7:30 am - 6:00 pm, Monday through Thursday.

Appendix B

Town of Warrenton - Water and Sewer System Capacity Evaluation Update



Town of Warrenton – Water and Sewer System Capacity Evaluation Update

Town of Warrenton, VA

Work Order Number: 18672

Draft Report
12/06/2022

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1. Executive Summary

Whitman, Requardt & Associates (WRA) has updated the April 2015 Water and Sewer Capacity Evaluation to include new data and to determine the impact of potential new housing and commercial development in the Town and in the Town's water and wastewater service area. Data on potential development was provided by the Warrenton Community Development Department. WRA estimated water demand and wastewater loadings from new developments including impacts to water and wastewater system capacity from overall development over time through year 2040.

The current water system capacity is 2.68 MGD from 2 reservoirs and 3 groundwater production wells. The Town's Water Filtration Plant has a capacity of 3 MGD. Water from the reservoirs is treated at the Filtration Plant and well water is treated at the well head. Average water production from 2015 through 2021 is 1.16 MGD (**Figure 3.1**). The current wastewater system treatment capacity at the Town's Wastewater Treatment Plant is 2.5 MGD. The average daily wastewater loading from 2015 through 2021 is 1.86 MGD (**Figure 4.1**). The Town is planning on expanding the capacity of the Wastewater Treatment Plant to 3 MGD over the next 10 years.

The estimated water system demand from the combination of the developments analyzed by WRA is 1.31 MGD. The estimated buildout water demand plus the 2021 water demand of 1.11 MGD provides an estimate of 2.42 MGD of future water demand (**Figure 5.1**). The estimated wastewater loading demand from the combination of the developments is 1.18 MGD. The estimated buildout wastewater loading plus the 2021 wastewater loading of 1.72 MGD provides an estimate of 2.9 MGD of future wastewater loading (**Figure 6.1**).

Per this analysis the Town of Warrenton has adequate water supply capacity and wastewater treatment capacity to accommodate the new housing and commercial developments identified by the Community Development Department. Several assumptions and assertions are included in this conclusion:

- Water demand projections are conservative. Water demand and wastewater loading can be monitored as developments came online to project future demand with greater accuracy.
- Unaccounted for water or the difference between billed water and water production and billed water is approximately 10%. This compares favorably to other communities in Northern Virginia
- The Virginia Department of Health (VDH) requires that communities submit a plan for increasing or providing for additional water system capacity when demand reaches 80% of permitted capacity. For Warrenton, the 80% threshold limit will be reached when all the development included in this analysis is in place. Depending on the Town's service area growth rate, this threshold could be reached in the 2050 decade or beyond.
- Extraneous water entering the wastewater system, also referred to as infiltration and inflow (I&I) constitutes about 49% of the wastewater flow entering the wastewater treatment plant. This level of I&I, although high, is not unusually high for wastewater collection systems similar in age to Warrenton's. WRA recommends that the Town continue to investigate and remediate I&I problems in the service area.
- The Virginia Department of Environmental Quality (DEQ) recognizes flow loadings approaching 95% of the design capacity (or 2.85 MGD) as the threshold level for planning WWTP capacity management strategies and improvements. This threshold level will be reached when all the development included in this analysis is in place. Depending on the Town's service area growth rate, this threshold could be reached in 2045 or beyond.
- The Turkey Run Pump Station can be used to receive flows from Laurel Ridge Community College. Although flows from Laurel Ridge can be managed by the Turkey Run PS, a detailed analysis should be made of the pump station before any additional flows are added.
- The Taylor Run Pump Station cannot receive flows from the Arrington Development and the Turkey Run Pump Station without improvements to the existing pumping system including the wet well. A detailed analysis of the existing system with recommendations for improvements to handle additional flows should be conducted before any new flows are added to this system.

2. Purpose

The Town of Warrenton authorized Whitman Requardt and Associates (WRA) to update the Water and Sewer System Growth and Capacity Report prepared in April 2015. The 2015 report evaluated existing and future water demand and wastewater loading based on developable lots within the Town and the surrounding service area.

This report will analyze current and future loadings and demands based on information provided by the Town's Community Development Department and Public Works & Utilities Department. This information includes data on new residential and commercial developments that have been approved by the Town or have been submitted to the Town for review and approval. In this report the following information was also included:

- Wastewater flow data from the Town's wastewater treatment plant (WWTP) since 2015
- Water production data from the Town's water treatment plant (WTP) since 2015
- Water supply information for the Town's reservoirs and wells
- Water billing information
- Proposed capacity changes to treatment capacity at the Town's WWTP
- Capacity of the Turkey Run Pump Station (PS #9) and the Taylor Run Middle School Pump (PS #6) to convey future wastewater flows from new developments in their respective sewer sheds

3. Existing Water Capacity and Demands

3.1 Water Production, Distribution and Demand

Water supply for the Town of Warrenton is provided by 2 reservoirs, located on Cedar Run, and 3 groundwater wells. The Airlie reservoir (upstream) and the Warrenton reservoir (downstream), operate in series. The Airlie Reservoir provides a safe yield of 1.16 million gallons per day (MGD) and the Warrenton Reservoir provides a safe yield of 1.14 MGD for a total reservoir safe yield of 2.3 MGD. Reservoir safe yield is defined as the rate at which water can be withdrawn during a critical dry period without depleting the supply to such an extent that withdrawal of water is no longer economically feasible. Safe yield is determined by the Commonwealth of Virginia Department of Environmental Quality (DEQ). Water from the Airlie reservoir flows to the Warrenton reservoir further downstream on Cedar Run and is withdrawn from the Warrenton Reservoir for treatment at the Water Filtration Plant. The Water Filtration Plant has a capacity of 3 MGD. Water from the filtration plant is distribution throughout the Town and Town's water service area.

The Town also owns and operates 3 groundwater production wells. Well #5 and Well #6 provide 0.076 MGD of water directly to the Town's distribution system. Well #3 provides an additional 0.304 MGD of water supply and the Town's total groundwater capacity is 0.38 MGD. Similar to reservoir safe yield, wells are not operated at full capacity all of the time. However, for purposes of this analysis, groundwater well capacity of 0.38 MGD is used. Water from the Town's wells are treated at the wellhead before distribution.

The Town has an approximate total water supply capacity of 2.68 MGD (reservoir plus wells).

Figure 3.1 depicts average water production from the reservoir and groundwater systems for the years 2015 to 2021:

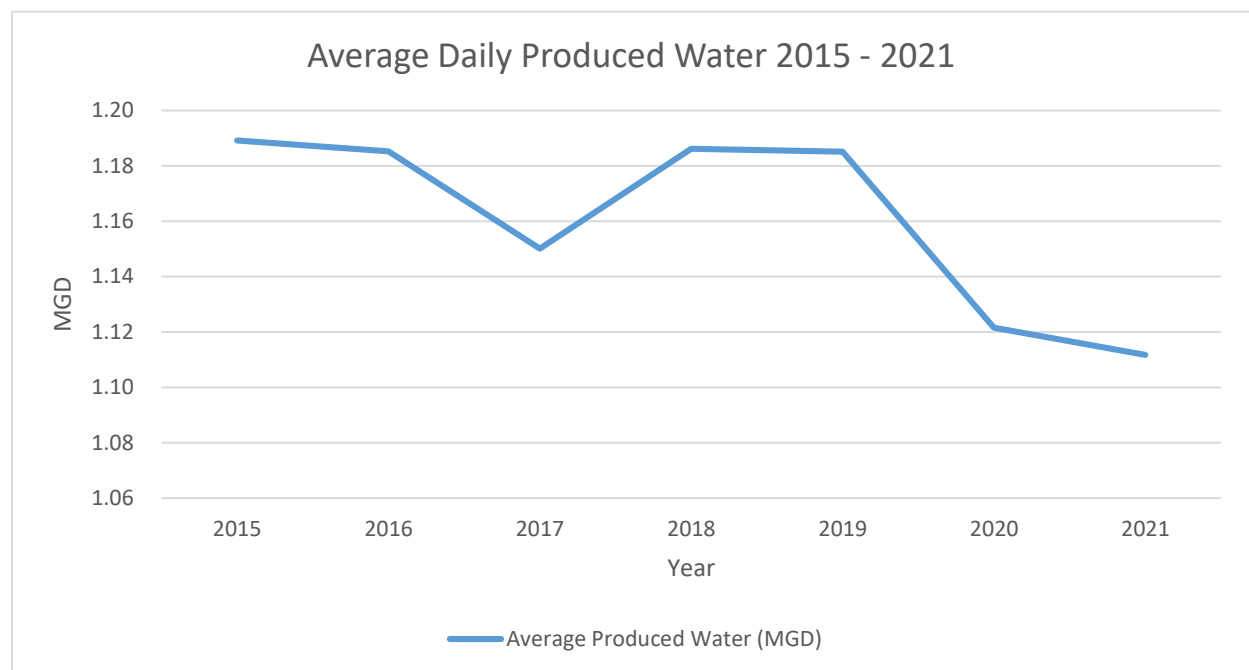


Figure 3.1: Average Daily Produced Water 2015 - 2021

The average water production for 2015 through 2021 is 1.16 MGD.

3.2 Water Production Data and Water Billing Data

WRA analyzed water production data and water billing data for the period 2015 through 2021. There are approximately 4,800 water accounts (residences and businesses) billed monthly. The billing data provided by the Town was adjusted for sale of water to construction contractors and other users not normally billed and for water lost through leaks at the water meter. Water used to fight fires, flush water and sewer mains, lost through leaks in the mains or removed illegally through fire hydrants is not accounted for. Water accounts are billed at the end of every month.

Water produced/distributed data was compared to billed water data on a month-to-month basis. Water volumes were converted to millions of gallons per day (MGD) and the difference between produced/distributed water and billed water was compared. The difference between these two values, is defined as unaccounted for water. Figure 3.2 depicts unaccounted for water per year for the period 2015 to 2021.

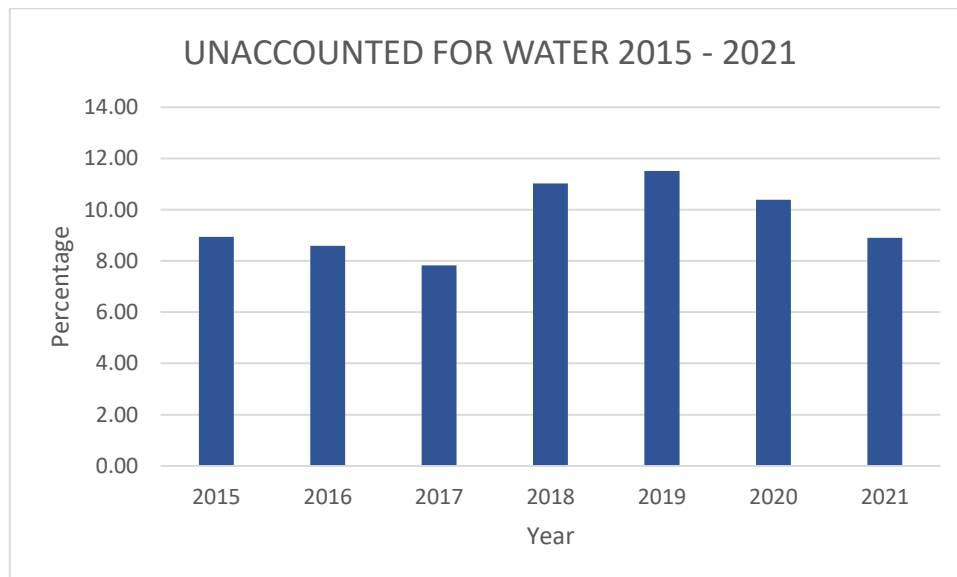


Figure 3.2: Unaccounted for Water 2015 - 2021

The average unaccounted for water in the most recent 7-year period is 9.6%. Unaccounted for water includes water lost through leaks in the distribution system, water used in firefighting, water taken illegally through fire hydrants and other sources and water used to flush mains and for other water system maintenance work.

The Town's 10% level of unaccounted for water compares favorably to other communities in Northern Virginia and does not indicate significant problems with the water distribution system or problems with the way the water system is managed.

4. Existing Wastewater Treatment Capacity

The Warrenton Wastewater Treatment Plant (WWTP) is permitted for treatment and discharge of 2.5 million gallons per day (MGD), average daily flow. Wastewater flows have averaged approximately 1.86 MGD over the past 7 years. The Town and WRA are currently conducting preliminary engineering for projects that will allow expansion of WWTP capacity to 3.0 MGD, average daily flow. Section 6 of this report describes how future wastewater flow projections will impact the proposed 3.0 MGD WWTP capacity.

4.1 Wastewater Flows

Daily wastewater flow data for the period 2015 – 2021 is shown in Figure 4.1.

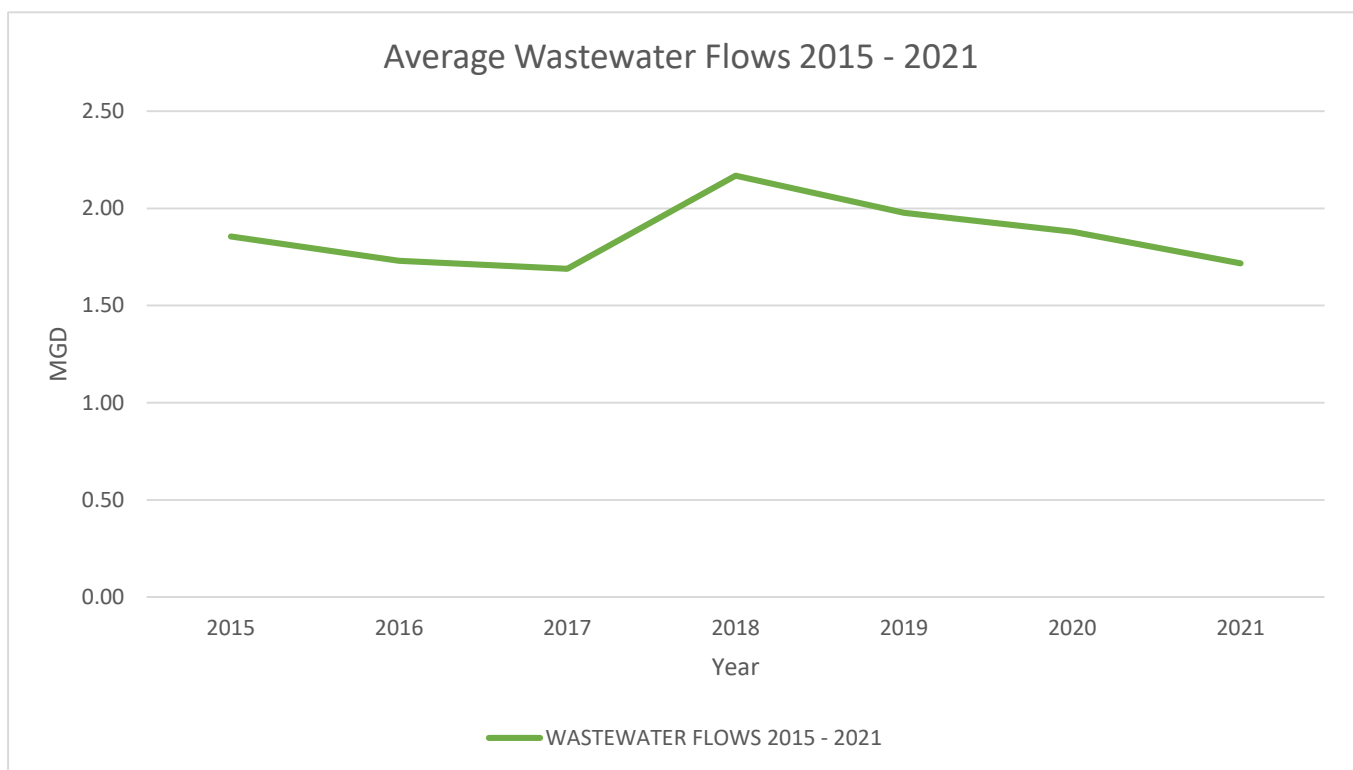


Figure 4.1: Average Wastewater Flows 2015 – 2021

Wastewater flows include sewage discharge from households and businesses and extraneous water that enters the collection pipeline system. Extraneous water sources include infiltration of groundwater through defected sewer pipe joints, manhole walls and other pipe defects in the collection system. Extraneous flows include Inflow of water discharged directly into the sewer system through basement and foundation drains, roof downspouts, manhole covers, cross connections with stormwater systems and other direct connections. Wastewater flows in municipal systems vary from year to year because infiltration and Inflow (I&I), varies depending on rainfall. I&I tends to be higher in years with excessive precipitation (rain and snow) such as occurred in 2018.

4.2 Wastewater System Extraneous Flows

WRA compared wastewater flow data and water billing data for period 2015-2021. Water billing data is the best measure of water consumed in municipalities. Figure 4.2 shows billed water versus wastewater loadings in the Town of Warrenton for the last 7 years.

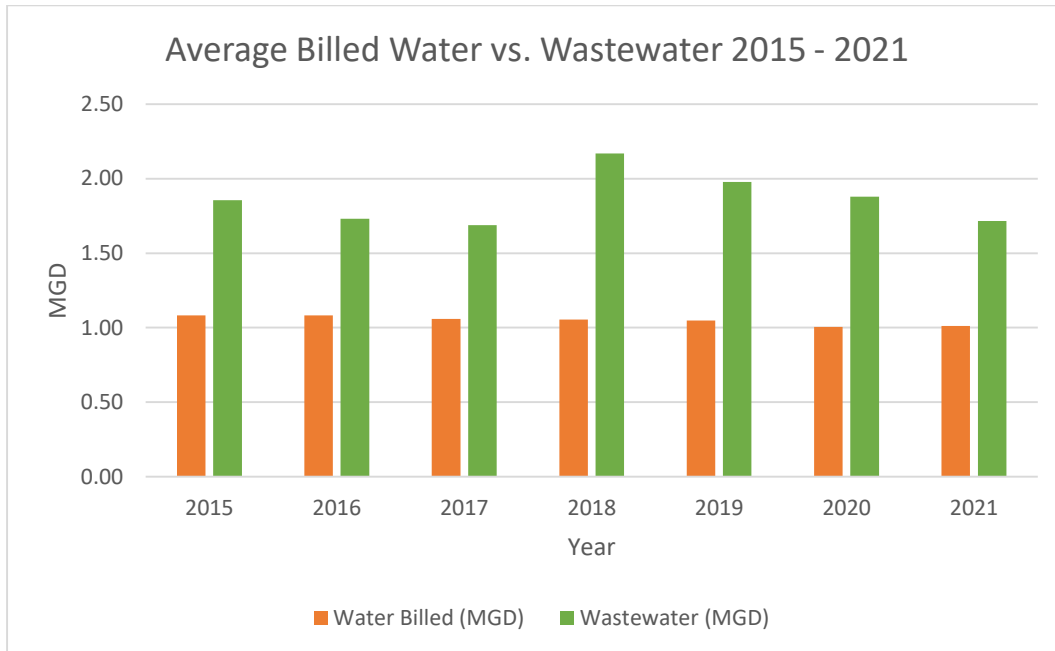


Figure 4.2: Average Billed Water vs. Wastewater 2015 – 2021

Billed water data used in this figure was discounted to account for customer water not returned to the wastewater system such as water used in landscape and lawn irrigation. WRA assumed that 90% of water billed at an account is returned to the wastewater system. Average annual I&I for the past seven years was calculated by subtracting wastewater flows as recorded at the WWTP from billed water (discounted). The difference is the measure of extraneous water or I&I entering the wastewater collection system.

Average I&I in the Warrenton system is calculated to be 0.92 MGD over the past years or 49% of total flows treated at the WWTP. This amount of I&I in the wastewater collection system is not unusual in municipalities with older wastewater collection infrastructure. The calculated 2015-2021 I&I flow component of 49% is approximately the same percentage as the I&I component calculated in the 2015 Water & Sewer System Capacity Evaluation.

5. Future Water Demand

5.1 Projected Water Demand from New Developments

The Town of Warrenton's Community Development Department provided WRA with data for proposed residential and commercial growth in the Town. Forty-two (42) projects were identified including residential and commercial developments. WRA also included Laurel Ridge Community College as a potential new consumer of Warrenton water and wastewater services. Laurel Ridge Community College is currently not served by the Town's.

The developments include new housing (Single-family homes, apartments, townhomes, hotels, senior care facilities) and commercial facilities (offices, medical facilities, retail, entertainment, industrial and academic facilities). Projects vary considerably in size from a few single-family houses to hundreds of apartment units. Project status varied also, with some developments approved by Community Development and other projects in review. WRA projected water demand and wastewater loadings for the developments based on the type of residential or commercial unit within the development. WRA used standard water demand (gallons per day) factor for each type of unit based on water demand factors used by the Town and/or by other utilities such as Prince William Service Authority and the Town of Leesburg. Information on the proposed developments, including the number of units, the and the total water demand and wastewater loading generated by the developments is included in Appendix A. The demand factors used to calculate water demand are included in Table 5.1.

Table 5.1: Residential Water Demands per Unit

Residential	Water Demand per Unit (GPD)
Single-Family (units)	300
Multifamily (units)	300
Apartment (units)	300
Townhouse (units)	300
Senior Home (units)	100
Hotel (rooms)	100

It should be noted that conservative demand values were chosen for residential units.

Commercial demand factors are included in Table 5.2.

Table 5.2: Commercial Water Demands per Square Foot

Commercial	Water Demand per Square Foot (GPD)
General (SF)	0.2
Entertainment (SF)	0.2
Academic (SF)	0.29
Office/Employment (SF)	0.29
Medical Offices (SF)	0.29
Industrial	Water Demand per Square Foot (GPD)
General (SF)	0.02

According to the U.S. Department of Education, Laurel Ridge Community College (LRCC) had a student population of 3,474 students in the 2018 – 2019 academic year. WRA used 15 gallons per day per student as the factor for calculating LRCC demand. Demand for proposed classroom facilities not associated with LRCC is based on a GPD/SF basis.

Additionally, there are some residences in Warrenton that are currently not connected to the Town's water system and/or the sewer system. The Town plans on incorporating these residences into the utility systems in the future and WRA included these units when calculating future water demand.

Table 5.3 summarizes the total number of residential units and commercial square footage and associated water demand for the proposed developments:

Table 5.3: Total Water Demand per Land Use Type

Land Use Type		Total Units	Total Water Demand (gal/day)
Residential	Single-Family (units)	1,479	469,500
	Multi-Family (units)	120	36,000
	Apartments (units)	1,420	426,000
	Townhouse (units)	296	88,800
	Senior Home (units)	60	6,000
	Hotel (rooms)	360	36,000
Commercial	General (SF)	200,711	40,142
	Entertainment (SF)	245,000	49,000
	Academic (SF)	220,000	63,800
	Office/Employment (SF)	40,000	11,600
	Medical Offices (SF)	50,000	14,500
Industrial	General (SF)	759,500	15,190
Community College	Students (unit)	3,474	52,110
TOTAL			1.31 MGD

5.2 Future Water Demand and Water Supply Capacity

Total water demand for the target year 2040 was calculated to be 2.42 MGD, assuming all proposed developments are eventually constructed. This demand projection value includes the average water demand in 2021 (1.11 MGD) plus the total buildout demand (1.31 MGD).

Figure 5.1 displays cumulative water demand by addition of the demand created by the named developments. The order or chronology of the projects is not definitive; however, cumulative water demand will not change.

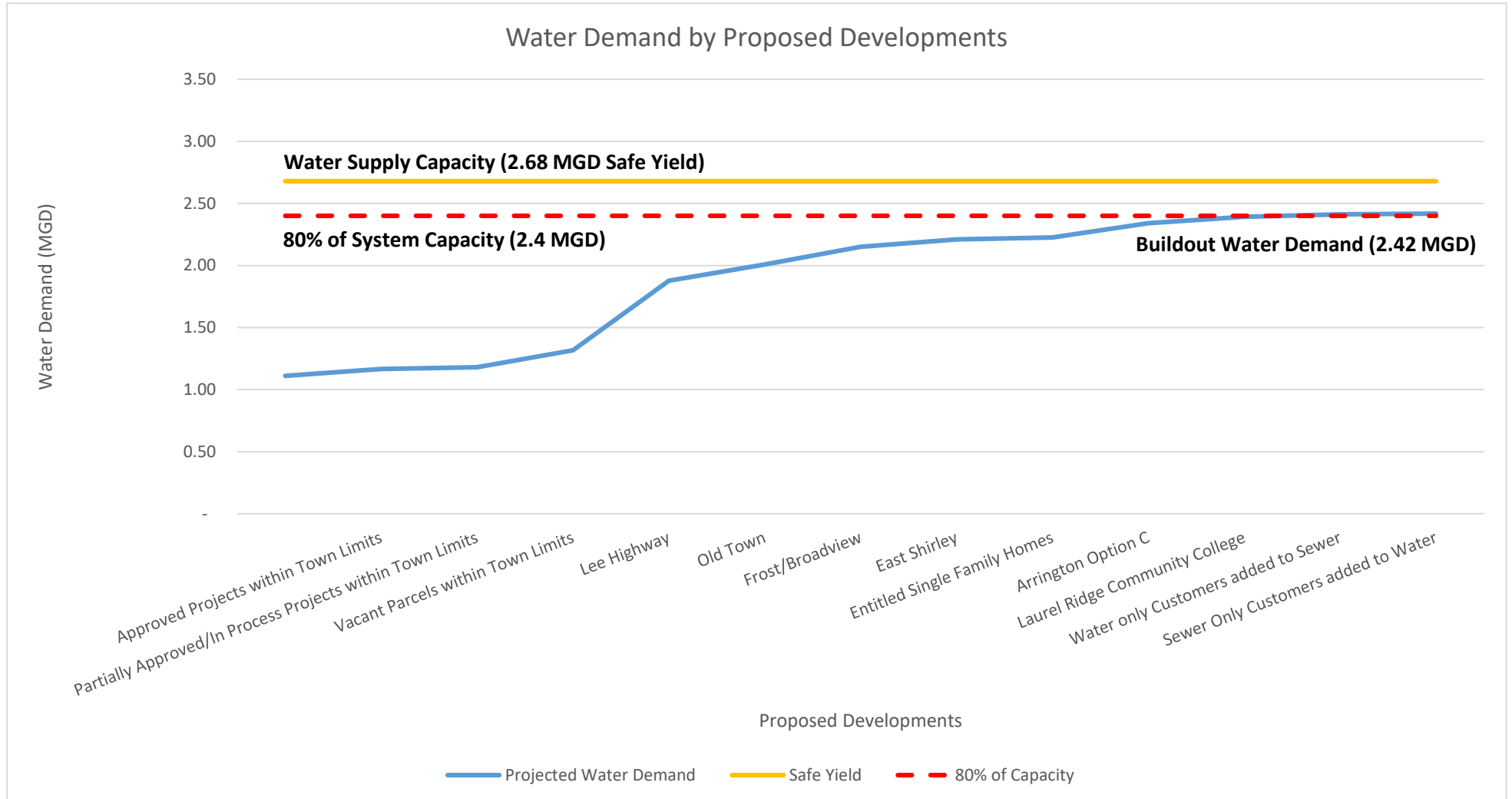


Figure 5.1: Water Demand by Proposed Developments

Buildout (all developments constructed) water demand is 2.42 MGD compared to water supply capacity of 2.68. Estimated demand is 91% of water supply capacity. Virginia Waterworks Regulation 12 VAC 5-590-520 requires municipalities to submit a written plan for developing adequate or additional water supply to the Virginia Department of Health, Office of Drinking Water, when water production exceeds 80% of the permitted design capacity for 3 consecutive months.

It should be noted that the estimated buildout water demand by development is conservative. Although the time frame for the progression of development construction through buildout is unknown, time-step analyses of water demand was also conducted.

An initial time step progression is shown in Figure 5.2. This linear growth time-step progression assumes that all development is completed by 2040, the target year for the current Warrenton Comprehensive Plan. The annual water demand growth rate is 7% for the linear growth model.

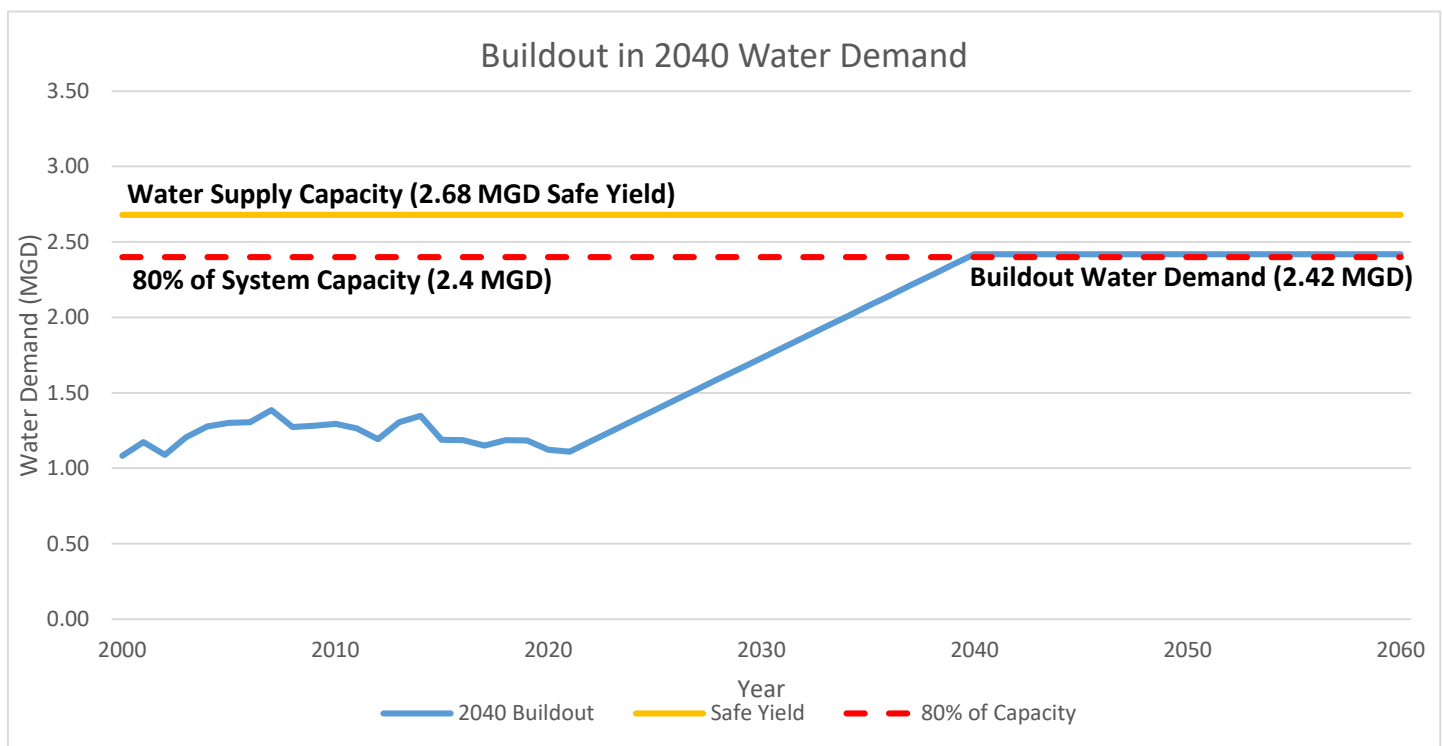


Figure 5.2: Buildout in 2040 Water Demand

Additional water demand growth models were analyzed by WRA. According to the U.S. Census Bureau, population growth in the Town of Warrenton and Fauquier County from 2010 to 2020 averaged 1% annually. Figure 5.3 depicts water demand assuming a 1% annual growth in water demand, similar to the most recent population growth pattern for The Town. For this growth model, 80% of system capacity is reached in 2099.

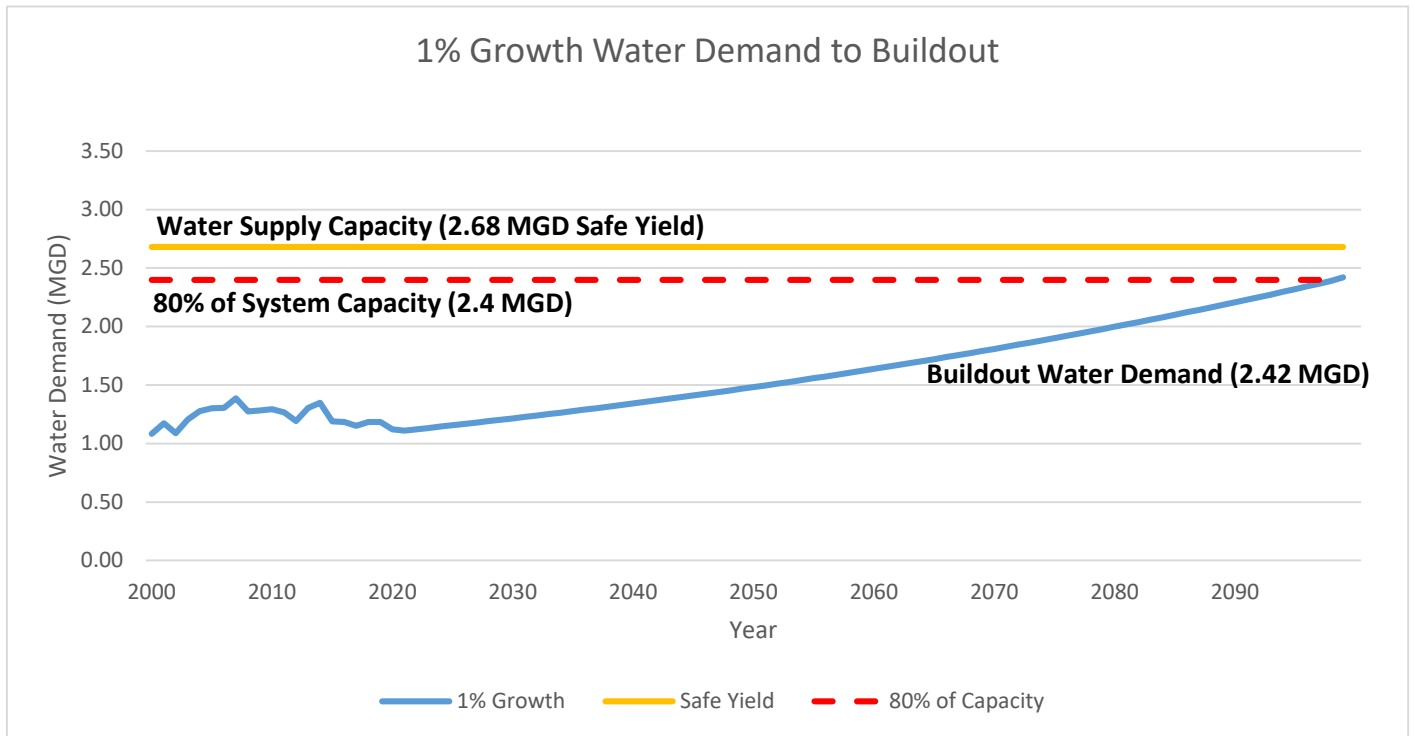


Figure 5.3: 1% Growth Water Demand to Buildout

Figure 5.4 shows a 2.5% annual increase in water demand. This model is more consistent with a more robust population and economic growth that could occur in Warrenton. In this case, 80% of capacity is reached in 2053.

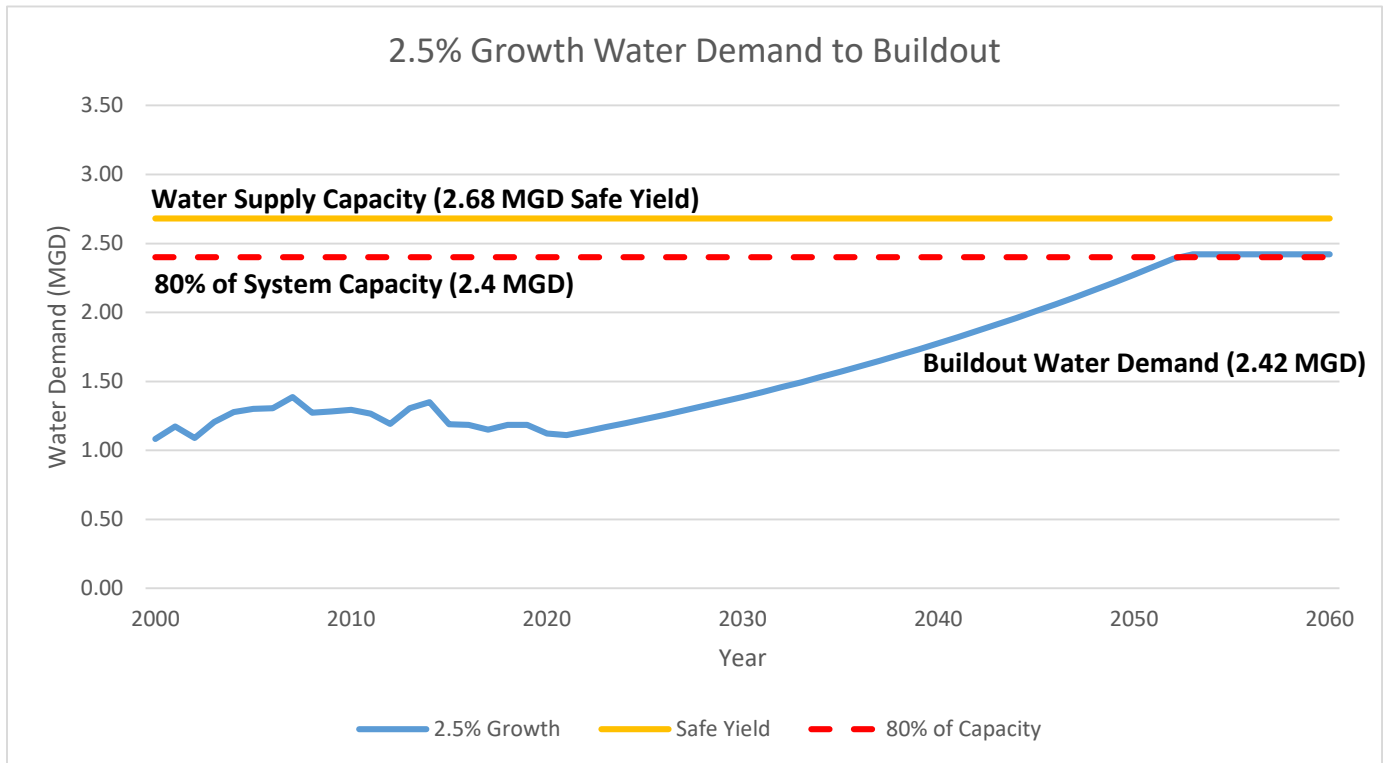


Figure 5.4: 2.5% Growth Water Demand to Buildout

6. Future Wastewater Loading

6.1 Wastewater Loading Projections

Future wastewater loadings are calculated based on an assumed 90% return of water consumed to the wastewater collection system. Water demand projections are described in Section 5 and included in Appendix A. Appendix A includes a compilation of expected wastewater loadings, based on water demand. The estimated total wastewater loading from all the developments described in Appendix A is 1.18 MGD (average daily flow basis).

Future total wastewater loading for Warrenton is estimated by adding the average wastewater flow in 2021 to the estimated buildout flow. The average daily wastewater flow in 2021 was 1.72 MGD and the additional flow from buildout is 1.18 MGD. Total future estimated wastewater loading is 2.90 MGD. It should be noted that the 2021 wastewater loading includes a significant extraneous water (I&I) component. I&I from the new developments is considered negligible in this analysis, although the base I&I in the beginning year of 2021 remains and is a component of overall wastewater loading.

6.2 Future Wastewater Loading and Capacity

Figure 6.1 depicts cumulative wastewater loading by addition of the demand created by the named developments. The order or chronology of the projects is not definitive; however, cumulative water demand will not change. As shown graphically, the capacity of the existing WWTP (2.5 MGD) is exceeded before all the proposed developments are completed. The Town is currently planning on increasing the capacity of the WWTP to 3.0 MGD within approximately 10 years. Under this wastewater loading model, The Town's wastewater treatment plant would accommodate development currently planned.

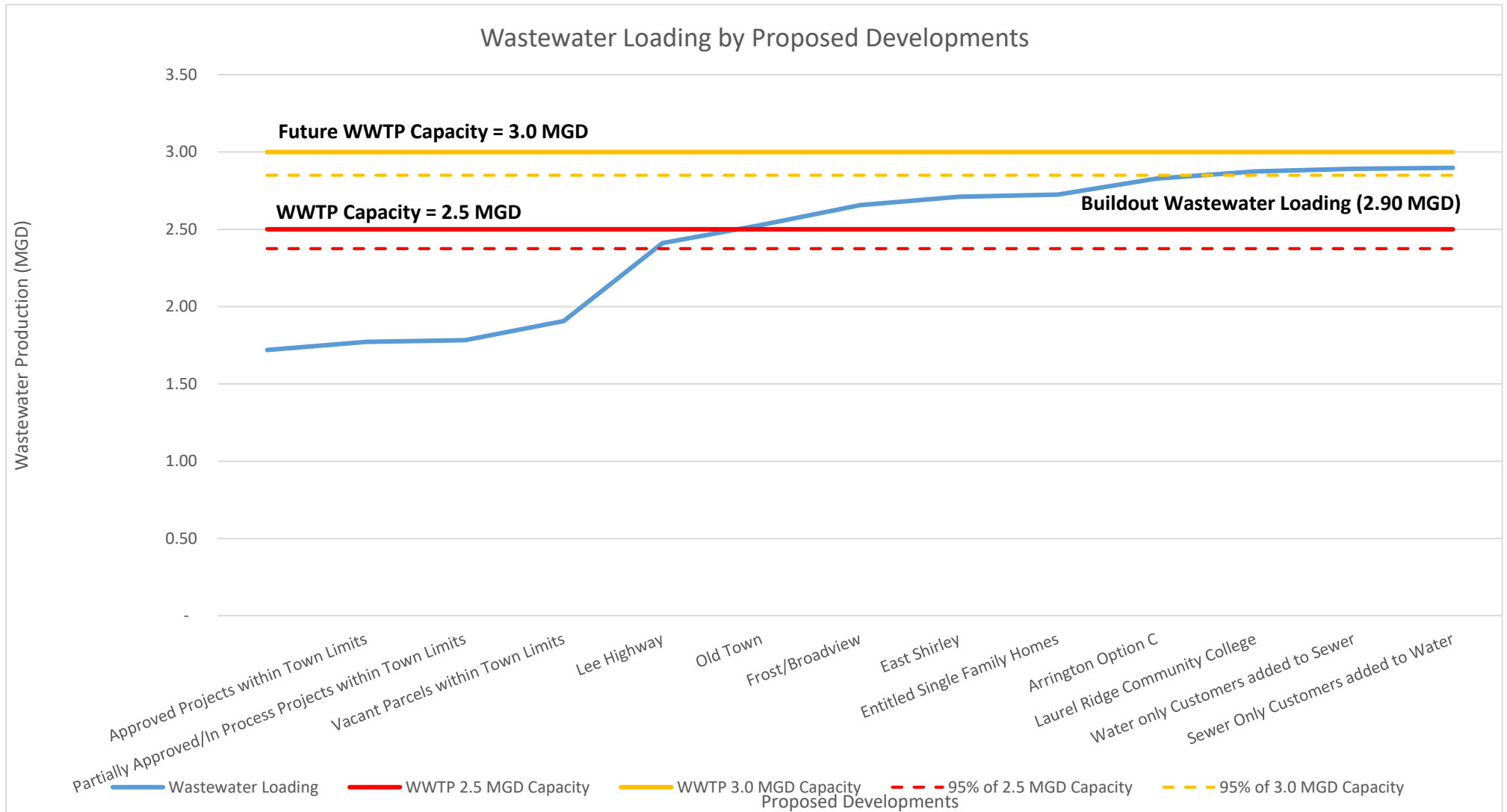


Figure 6.1: Wastewater Loading by Proposed Developments

Although the upsized WWTP will accommodate loadings from the proposed developments, additional WWTP capacity enhancements may be necessary as loadings approach 2.90 MGD. The Virginia Department of Environmental Quality (DEQ) recognizes flow loadings approaching 95% of the design capacity (or 2.85 MGD) as a trigger point for planning WWTP capacity management strategies and improvements.

An initial time step progression is shown in Figure 6.2. This linear growth time-step progression assumes that all development is completed by 2040, the target year for the current Warrenton Comprehensive Plan. The annual wastewater loading demand growth rate is the same as for water demand, 7%. With buildout by 2040, the current 2.5 MGD WWTP capacity is exceeded by 2034. With the proposed increased WWTP capacity, 95% of treatment capacity is reached in 2039.

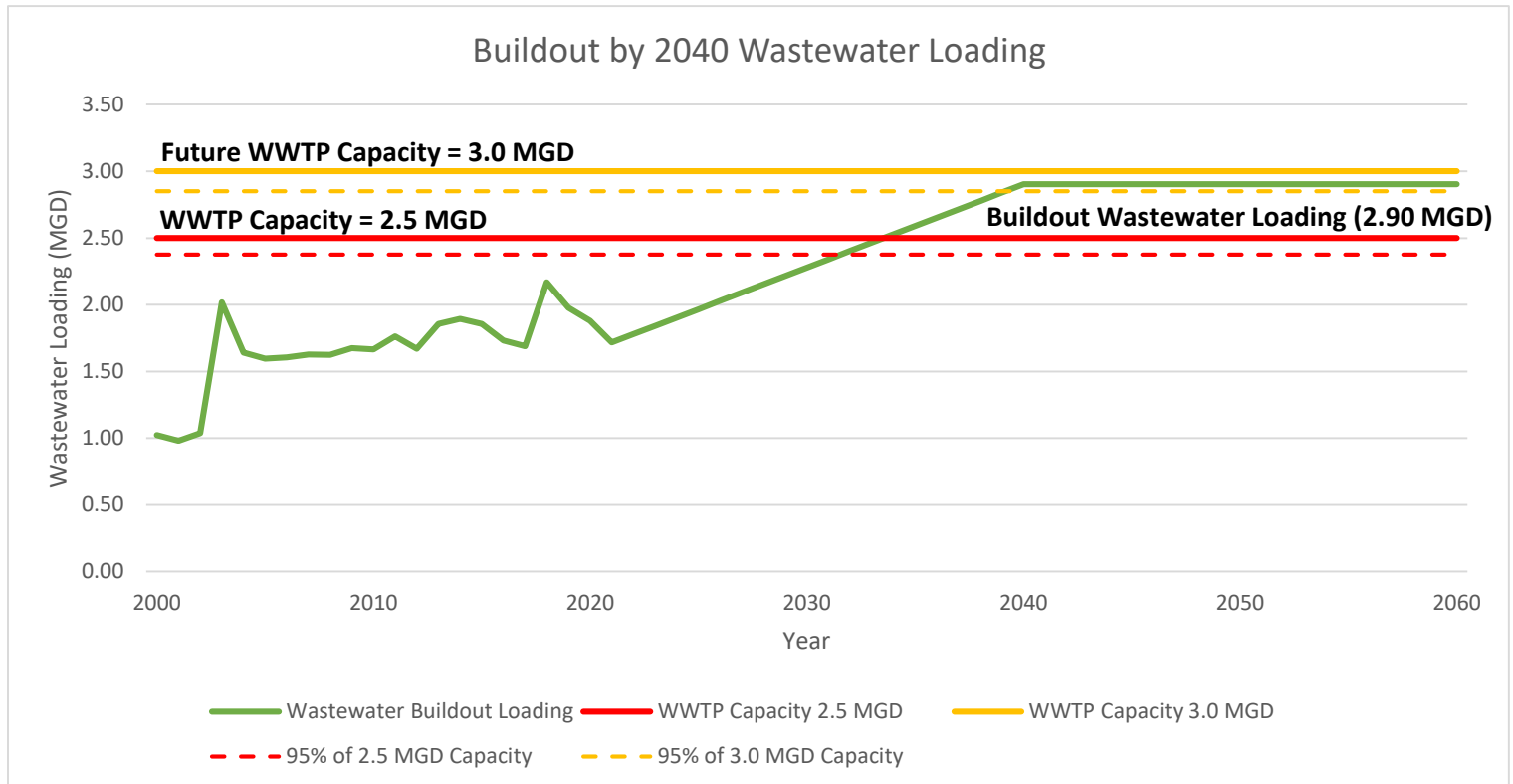


Figure 6.2: Buildout by 2040 Wastewater Loading

Similar to the water demand projection graphs, 6.3 depicts wastewater loadings at a 1% annual growth rate.

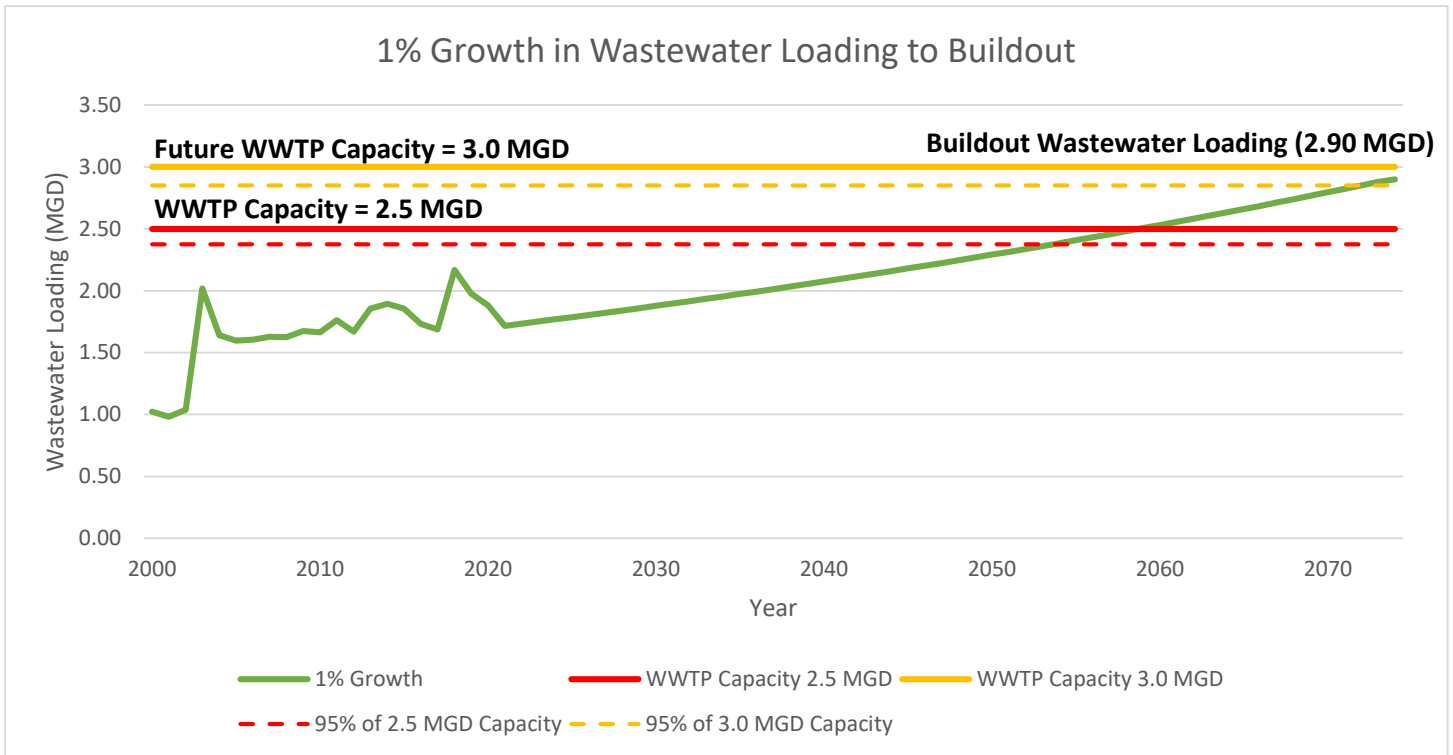


Figure 6.3: 1% Growth in Wastewater Loading to Buildout

In this case, wastewater loading would not reach the 3 MGD 95% threshold until 2071.

Figure 6.4 depicts a more robust 2.5% annual rate in wastewater loadings.

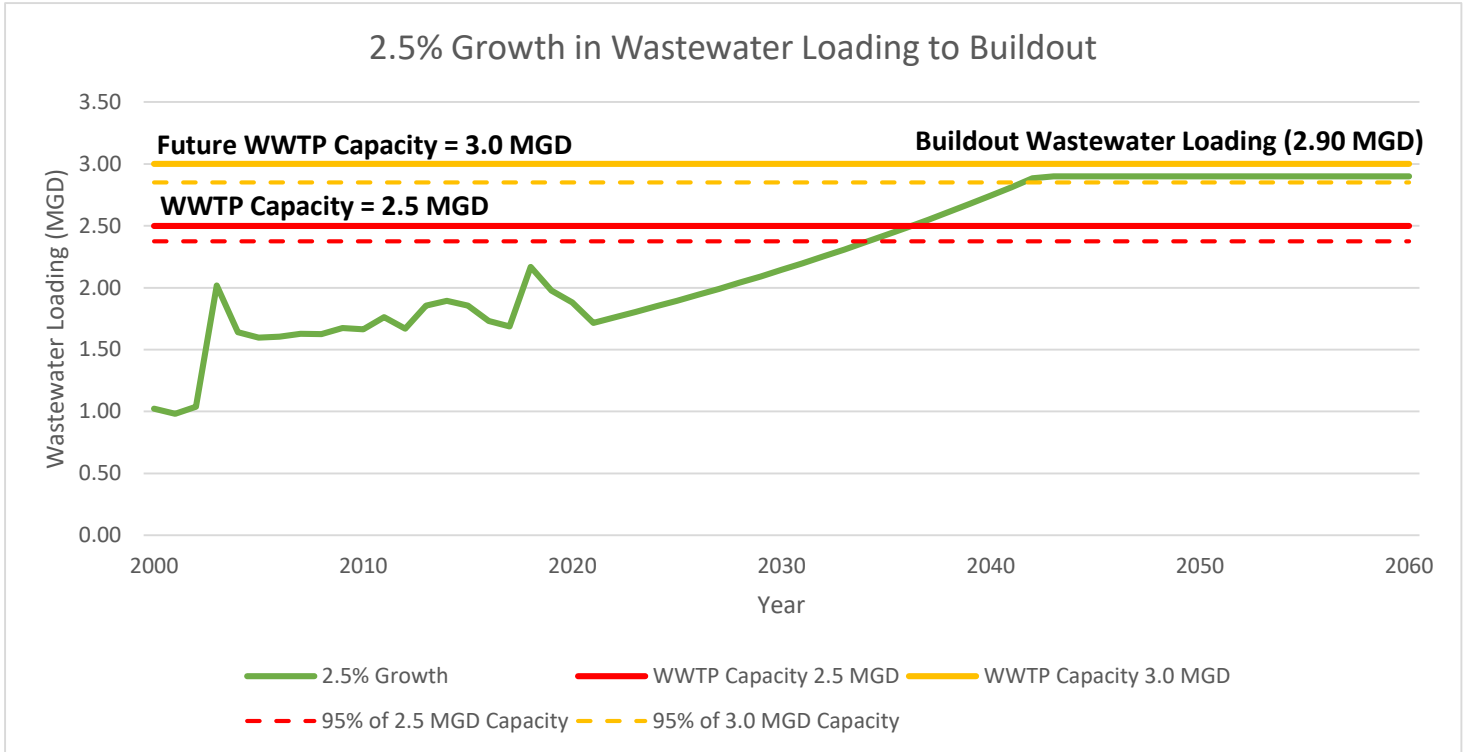


Figure 6.4: 2.5% Growth in Wastewater Loading to Buildout

In this scenario, wastewater loadings would not reach the 3 MGD 95% threshold until 2043.

7. Turkey Run and Taylor Run Wastewater Pumping Station Capacities

The Town of Warrenton owns and operates 11 wastewater lift stations (pump stations) that help convey wastewater generated in the outer reaches of the wastewater service area into the central part of the wastewater collection system for conveyance by gravity into the wastewater treatment plant. WRA analyzed the impact of additional wastewater loading into the Turkey Run Pump Station (PS #9) and the Taylor Run Pump Station (PS #6).

In the future wastewater, flows from Laurel Ridge Community College will flow into the Turkey Run PS. Flows from the Turkey Run PS are then discharged to the Taylor Run PS. Taylor Run will also receive flows from the new Arrington development.

Laurel Ridge Community College is estimated to produce approximately 0.05 MGD of wastewater. Assuming a peak flow value of 4, the wastewater volume would increase to 0.2 MGD, or 139 gallons per minute (GPM). The proposed Arrington development is estimated to produce approximately 0.1 MGD of wastewater. A peak volume for this flow is 0.4 MGD, or 278 GPM.

WRA's analysis of the Turkey Run PS indicates that additional flows from Laurel Ridge Community College can be discharged into the Turkey Run PS using the existing pumps, wetwell and pump station appurtenances.

The Taylor Run PS will receive flows coming from the Turkey Run Pump Station and has a capacity of 600 GPM. Current wastewater flows into the Taylor Run PS are estimated to be 704 GPM. A pumping rate of 704 GPM is within the range of the new pumps installed in 2011. Adding peak flows from Laurel Ridge Community College and the proposed Arrington development would increase flows to the Taylor Run PS by 417 GPM (approximately 1121 GPM). This increase in flow would require larger horsepower motors and a different impeller if the same pumps are used. Taylor Run PS also currently experiences a large number of pump starts each day. This condition indicates that the wetwell may be too small for existing flows, even though the pumps are able to manage these flows.

The Turkey Run PS appears to be able to receive the future flows from Laurel Ridge Community College while the Taylor Run PS would probably need substantial modifications or replacement to serve the Arrington Development and the Turkey Run flows.

WRA recommends that a more detailed analysis be conducted for both stations before additional flows are discharged into them.

Appendix 1

Water & Wastewater Projection Allocation Summary

Totalized Units Based on Project Development		IN-TOWN								OUT OF TOWN				TOTALS
Land Use Type		Approved Projects within Town Limits	Partially Approved/In Process Projects within Town Limits	Vacant Parcels within Town Limits	Lee Highway	Old Town	Frost/Broadview	East Shirley	Entitled Single Family Homes	Arrington Option C	Laurel Ridge Community College	Water only Customers added to Sewer	Sewer only Customers added to Water	
Residential	Single-Family (units)	190	36	331	-	206	235	117	50	314	-	63	23	1,479
	Multi-Family (units)	-	-	-	-	-	120	-	-	-	-	-	-	120
	Apartment (units)	-	-	-	1,336	84	-	-	-	-	-	-	-	1,420
	Townhouse (units)	-	-	34	108	7	-	84	-	63	-	-	-	296
	Senior Home (units)	-	-	-	-	-	60	-	-	-	-	-	-	60
	Hotel (rooms)	-	-	-	115	115	115	-	-	15	-	-	-	360
Commercial	General (SF)	-	12,550	60,161	98,000	10,000	20,000	-	-	-	-	-	-	200,711
	Entertainment (SF)	-	-	-	100,000	145,000	-	-	-	-	-	-	-	245,000
	Academic (SF)	-	-	-	220,000	-	-	-	-	-	-	-	-	220,000
	Office/Employment (SF)	-	-	-	40,000	-	-	-	-	-	-	-	-	40,000
	Medical Offices (SF)	-	-	-	-	-	50,000	-	-	-	-	-	-	50,000
Industrial	General (sq ft)	-	-	759,500	-	-	-	-	-	-	-	-	-	759,500
Community College	Campus (units)	-	-	-	-	-	-	-	-	-	3,474	-	-	3,474

Additional Water Demand Based on Projected Development

Land Use Type		IN-TOWN								OUT OF TOWN				TOTAL (gal/day)	
		Approved Projects within Town Limits	Partially Approved/In Process Projects within Town Limits	Vacant Parcels within Town Limits	Lee Highway	Old Town	Frost/Broadview	East Shirley	Entitled Single Family Homes	Arrington Option C	Laurel Ridge Community College	Water only Customers added to Sewer	Sewer Only Customers added to Water		
Residential	Single-Family (units)	57,000	10,800	99,300	-	61,800	70,500	35,100	15,000	94,200	-	18,900	6,900	469,500	
	Multi-Family (units)	-	-	-	-	-	36,000	-	-	-	-	-	-	36,000	
	Apartment (units)	-	-	-	400,800	25,200	-	-	-	-	-	-	-	426,000	
	Townhouse (units)	-	-	10,200	32,400	2,100	-	25,200	-	18,900	-	-	-	88,800	
	Senior Home (units)	-	-	-	-	-	6,000	-	-	-	-	-	-	6,000	
	Hotel (rooms)	-	-	-	11,500	11,500	11,500	-	-	1,500	-	-	-	36,000	
Commercial	General (SF)	-	2,510	12,032	19,600	2,000	4,000	-	-	-	-	-	-	40,142	
	Entertainment (SF)	-	-	-	20,000	29,000	-	-	-	-	-	-	-	49,000	
	Academic (SF)	-	-	-	63,800	-	-	-	-	-	-	-	-	63,800	
	Office/Employment (SF)	-	-	-	11,600	-	-	-	-	-	-	-	-	11,600	
	Medical Offices (SF)	-	-	-	-	-	14,500	-	-	-	-	-	-	14,500	
Industrial	General (sq ft)	-	-	15,190	-	-	-	-	-	-	-	-	-	15,190	
Community College	Students (units)	-	-	-	-	-	-	-	-	-	52,110	-	-	52,110	
	Sub-Total Water (MGD)	0.06	0.01	0.14	0.56	0.13	0.14	0.06	0.02	0.11	0.05	0.02	0.01	1.31	Average Water Demand (MGD)
	Sub-Total Wastewater (MGD)	0.05	0.01	0.12	0.50	0.12	0.13	0.05	0.01	0.10	0.05	0.02	0.01	1.18	WRA Calculated Wastewater Demand (MGD)



Total Water and Wastewater Demand Including Projected and Existing		IN-TOWN								OUT OF TOWN					
		Approved Projects within Town Limits	Partially Approved/In Process Projects within Town Limits	Vacant Parcels within Town Limits	Lee Highway	Old Town	Frost/Broadview	East Shirley	Entitled Single Family Homes	Arrington Option C	Laurel Ridge Community College	Water only Customers added to Sewer	Sewer Only Customers added to Water		
Existing 2021 + New Project Water Demand (MGD)	1.11	1.17	1.18	1.32	1.88	2.01	2.15	2.21	2.23	2.34	2.39	2.41	2.42	2.42	Totalized Projected Water Demand (MGD)
Existing 2021 + New Project Wastewater Demand (MGD)	1.72	1.77	1.78	1.91	2.41	2.53	2.66	2.71	2.72	2.83	2.87	2.89	2.90	2.90	Totalized Projected Wastewater Demand (MGD)

