Town of Appomattox Water System

A History from Wells to County Pipeline, 1990–2024

Source: Appomattox County Newspaper Archive, responses.db (2004–2024)

Compiled by N.A. Simpson

At a Glance

Primary source (pre-2012): Eight municipal wells; maximum safe yield ~350,000 gallons per day
Drought catalyst: Summer 2002 — wells reached critically low levels; water rationing imposed
Decision: U.S. 460 pipeline connecting to Campbell County Utilities & Service Authority (CCUSA)
Construction began: Early 2011 | Waterline activated: July 24, 2012
Infrastructure: 7.5-mile, 12-inch pipe; 100,000-gallon tank at Spout Spring
CCUSA exit notice: July 2021 — contract will not be renewed; supply ceases December 31, 2030
Active project (2023–2024): Church Street Waterline Replacement (~80% complete as of September 2024)
Water Master Plan: CHA Consulting selected November 2023 to plan post-2030 supply strategy

1 Background: The Well-Based System (Pre-2002)

For most of the twentieth century, the Town of Appomattox drew its entire municipal water supply from a series of groundwater wells drilled within and immediately surrounding town limits. By the early 2000s the system comprised eight active production wells, which were operated in rotation — typically four at a time — to allow recovery of water tables between pumping cycles. The combined maximum safe yield of the system was estimated at approximately 350,000 gallons per day, while average daily pumping ran closer to 316,000 gallons.

Well No. 9, located in the Meadowlark Subdivision, was among the most productive, originally capable of delivering 175 gallons per minute. Over three decades of continuous use, however, its water table fell from a static level of 205 feet to only 57 feet, and output declined to 60 gallons per minute before the pump was ultimately turned off in September 2006. Well No. 15, situated behind the old Appomattox Elementary School, also showed considerable decline. These patterns were symptomatic of a broader, long-standing stress on the aquifer underlying the town.

Despite recurring evidence of supply pressure, public records indicate that local officials had been aware of underlying water problems since at least 1964, yet substantive investment in an alternative supply was repeatedly deferred. A 2004 newsletter from Mayor John Wilson acknowledged that the town's eight wells were "insufficient to meet the needs of the entire Town and its commitment to the Industrial Park," validating what critics had long argued. The failure to pursue alternatives through the 1970s, 1980s, and 1990s would ultimately leave the town acutely exposed when the 2002 drought arrived.

One early regional infrastructure milestone was the groundbreaking for Slate River Watershed Dam No. 7, a recreational and conservation project in the Appomattox-Buckingham State Forest, which occurred around 1990. Though not directly part of the municipal water supply, its development reflected growing regional awareness of water resource management. The town's water system itself, however, remained anchored to its aging well network.

2 The 2002 Drought: A Defining Crisis

The summer of 2002 proved to be the pivotal turning point in the water history of Appomattox. A year-long drought gripped the region, causing private wells across Appomattox County to go dry and driving the town's municipal wells to dangerously low levels. Town officials were forced to impose water rationing on residents — a stark public demonstration of the system's fragility. Engineers later confirmed that static water levels in the town's wells had dropped between 42 and 114 feet from the levels recorded when the wells were originally drilled, a decline that had been building over decades but was dramatically accelerated by the drought.

The crisis had immediate economic consequences. The Appomattox County Industrial Park, which the town was relying upon to attract new employers, could not guarantee the water supply that pharmaceutical, food-processing, and heavy-industrial prospects required. Over the following years, county officials would repeatedly report that more than a dozen business prospects had to be turned away because of inadequate water infrastructure. Assistant County Administrator John Spencer and Industrial Development Authority members testified publicly that water availability had become the single greatest barrier to economic development.

Former Governor Mark Warner issued an executive order in 2002 *requiring all localities in Virginia to develop alternative water supply plans*, a direct response to the widespread drought failures. This mandate carried regulatory weight: localities that did not comply risked losing eligibility for state infrastructure funding. For Appomattox, it meant the question of a supplemental water source could no longer be deferred indefinitely.

3 Evaluating the Options (2003–2005)

3.1 The Wiley & Wilson Engineering Study

In October 2003, engineering firm Wiley & Wilson presented Appomattox officials with a formal assessment of three water supply alternatives. Walter Hancock, the firm's lead representative, recommended the U.S. 460 pipeline corridor as the most feasible option, citing lower risks for future operations, maintenance, and unforeseen expenses, as well as the ability to provide immediate service along the Route 460 corridor. The three options and their estimated costs were:

Option	Estimated Cost	Notes
Surface reservoir (local)	$15.4 million	Locally controlled; high operating cost
James River intake line	$16.4 million	+$730,000/year operating costs
U.S. 460 pipeline to Lynchburg/Campbell (recommended)	**$16.4M ($15M net)**	Deferred costs reduce effective price; treatment burden on supplier

A key advantage of the pipeline option, Hancock noted, was that water treatment costs would be borne by the upstream supplier — either the City of Lynchburg or Campbell County — rather than by Appomattox. The pipeline was projected to serve water to the entire Route 460 corridor, facilitating future residential, commercial, and industrial development. Appomattox County supervisors endorsed the concept in October 2003, though no formal action was taken at that time.

3.2 The Region 2000 Study and Revised Cost Estimates

In early 2004, the Appomattox County Board of Supervisors and the Appomattox Town Council each contributed $25,000 to retain the Region 2000 Regional Commission as project manager to refine the water options study. By November 2004, Region 2000 had revised its cost estimates downward: the Lynchburg pipeline was re-estimated at $13 million (a 13-mile, 16- to 20-inch line), while a nearer connection point at Concord — running just eight miles on U.S. 460 into Campbell County — was estimated at only $5.5 million. This Concord option emerged as the most economically attractive path. Factoring in potential grant funding, officials estimated as early as May 2005 that the net cost to Appomattox for the Concord connection could be as low as approximately $400,000, split between the county and town.

Also in 2004, the Town of Appomattox enacted a moratorium on new out-of-town water connections and later, in March 2006, passed an ordinance requiring all occupied buildings within 500 feet of a town water main to connect to the municipal system — effectively prohibiting the drilling of new private wells within those zones.

3.3 The Campbell County Pathway Emerges

By mid-2005, attention had largely converged on an eight-mile pipeline from Appomattox to the Concord community in Campbell County, where the Campbell County Utilities and Service Authority (CCUSA) was already planning its own infrastructure expansion from Rustburg to Concord to serve Concord Elementary School and surrounding development. Appomattox's participation would require contributing to an upgraded, larger-diameter pipe capable of carrying water for both jurisdictions. In July 2005, the Board of Supervisors and Town Council voted to begin formal negotiations with CCUSA over costs. That October, Draper Aden Associates was hired at a cost of $14,900 (later increased to $24,900) to perform hydraulic modeling and rate analysis for the proposed connection.

4 Public Debate and Community Opposition (2004–2006)

The water pipeline question generated sustained and at times heated public debate in Appomattox throughout 2004 and 2005. Citizens packed a community center meeting in February 2005 and overwhelmingly opposed the proposed U.S. 460 waterline, questioning its $5.5 million price tag and the necessity of the project given what many perceived as adequate existing wells.

Multiple residents and letter-to-the-editor writers argued that the town had sufficient groundwater to meet needs through 2020 or even 2050 without an external pipeline, citing Wiley & Wilson projections that the town's existing wells could serve "modest" needs for the next 30 years. Critics also raised concerns about loss of local control, the risk of rate increases driven by an external supplier, the prospect of a Public Service Authority with limited public accountability, and the argument that the pipeline would primarily benefit commercial developers along Route 460 rather than ordinary residents.

Councilman John L. Wilson — who also served as mayor for portions of this period — was among the most persistent opponents. He criticized Region 2000's final water report as placing an unfair financial burden on town residents while minimizing county taxpayer costs, and proposed an alternative plan in which Appomattox would draw initially from wells and later from locally developed surface reservoirs, maintaining full local control. His opposition reflected a genuine constituency in the town that was deeply skeptical of outside institutions and wary of dependency on neighboring Campbell County or the City of Lynchburg.

Proponents of the pipeline, including the Appomattox County Industrial Development Authority (IDA, later renamed the Economic Development Authority), argued that Appomattox was "the only surrounding locality without public water," that over a dozen businesses had already declined to locate in the county's industrial park because of inadequate water supply, and that without action the county would remain a "bedroom community" unable to sustain a healthy tax base. IDA Chairman Bill Slagle and members Buddy Conner and Wayne Lewis made repeated presentations to both the Town Council and the Board of Supervisors throughout 2006 pressing for action.

5 The County–Town Split (2006)

The year 2006 was characterized by a deepening divide between Appomattox County's Board of Supervisors, which was broadly supportive of the pipeline, and the Appomattox Town Council, which repeatedly declined to commit resources to the project. This split would shape the water system's governance structure for years to come.

5.1 County Moves Forward Independently

In June 2006, the engineering firm Draper Aden Associates completed its feasibility study. The results confirmed a total construction cost estimate of approximately $9 million for the full Concord-to-Appomattox waterline: $4.2 million for Campbell County's segment (to serve Concord) and $4.7 million for Appomattox County's segment. The County Board of Supervisors voted 3-to-1 in late June to pursue the project, with Supervisor Shawn Armbrust dissenting on grounds that the town should first make a decision before the county committed.

Through mid-2006, CCUSA issued a series of deadlines pressing Appomattox to commit: a September 15 resolution deadline (to allow Campbell County to size the pipe appropriately) and a December 1 financial assurance deadline. The Town Council repeatedly declined to act on these requests. In September 2006, the Town formally withdrew from any joint venture on the waterline study. Seven days after the Town Council took no action at its October 2006 meeting, the County Board of Supervisors voted 3-to-2 to proceed with the $4.7 million waterline project independently, without the Town as a partner.

According to a 2006 county record, the county's decision to purchase the waterline infrastructure — while the Town refused to commit financially — established the county as the sole owner of the new pipeline. This ownership structure, in which the county held the waterline and the town subsequently became a customer accessing it through a maintenance and purchase agreement, persisted for the life of the CCUSA contract.

5.2 Town's Water System Conditions Deteriorate

While the policy dispute played out, the physical condition of the town's existing wells continued to decline. In September 2006, Town Manager David Garrett revealed that Well No. 9's output had been reduced to 60 gallons per minute — down from its original 175 gallons per minute — and that its water table had fallen from 205 feet to just 57 feet over three decades. The pump was turned off entirely. Officials acknowledged the town was exploring 12 or more potential new well sites both within and outside town limits, though they maintained publicly that current supply remained adequate.

In July 2006, the Town Council also approved water and sewer rate increases, acknowledging that the water system was not financially self-sustaining. Out-of-town connection rates rose sharply: the base water rate for out-of-town users increased from $9.55 to $12.70, and the incremental rate jumped from $4.50 to $11.10 per 1,000 gallons above 2,000 gallons. These rate changes reflected both the genuine cost pressures of the aging well system and an effort to ensure that rural customers outside town limits bore an appropriate share of system costs.

6 The 2007 Drought and the Town's Reversal

The political stalemate was broken, at least partially, by another drought crisis in the fall of 2007. By October, the Town of Appomattox had been forced to shut off two of its eight operational wells due to critically low water levels. Static water levels had dropped between 42 and 114 feet from their original measurements. Citizens were placed under voluntary water restrictions, and town staff began reading meters daily for large water consumers. Mandatory restrictions were threatened if conditions did not improve within one to two weeks.

A district health official from the Virginia Department of Health formally instructed the Town Manager that the town must "immediately seek an alternative water supply" and set a November 1 deadline for the town to provide a written response. This letter carried considerable weight: it was framed not as advice but as a regulatory directive. At a Town Council Utility Committee meeting that month, a state health official praised the Appomattox County Board of Supervisors — which had been widely criticized in town for proceeding with the waterline independently — for having "the foresight to pursue a Concord-to-Appomattox waterline," suggesting the county had correctly anticipated precisely the crisis now unfolding.

The Town Council's Utility Committee indicated for the first time that it was willing to revisit the prospect of joining the county's waterline project. Mayor Wilson's continued opposition was now politically untenable in the face of the health department's directive and the visible failure of the well system. Within months, the Council had voted — again — to meet with county officials, this time driven by unmistakable necessity rather than choice.

7 The Path to Partnership (2008–2011)

7.1 Town's 5-0 Vote and Engineering Endorsement

In January 2008, construction in Campbell County on the U.S. 460 waterline — the county's own segment — was targeted to begin by the end of that month, with a projected completion date of August 2009. The Campbell County supervisors had also budgeted $1.2 million for a second phase of the waterline, from Concord Elementary School to Lexington Park.

Facing this timeline, the Appomattox Town Council in February 2008 received a fourth report from engineering firm Hurt & Proffitt examining the feasibility of the town joining the project. Independent engineer Norman Walton made a clear recommendation: connecting to the Concord waterline would be cheaper than maintaining the town's aging well system, would eliminate the town's longstanding copper and zinc problems at the trickling filter wastewater treatment plant, and would resolve the need for additional water sourcing. The Council voted 5-to-0 to meet with county officials to discuss a financing arrangement — a unanimous vote that represented a decisive shift from its previous position.

Appomattox County offered to pay 75 percent of the waterline costs if the town would contribute 25 percent. Various funding scenarios were modeled: if the county paid 100 percent of costs, town water customers would pay approximately $20.85 for 5,000 gallons per month. Officials also explored grant funding from the Virginia Tobacco Commission, which specializes in economic development projects.

7.2 Formal Agreement and Water Purchase Contract

In July 2010, the Town of Appomattox formally agreed to partner with Appomattox County on the U.S. 460 waterline project, following years of on-and-off negotiations. In early 2011, the Town Council and the County Board of Supervisors jointly finalized a water purchase agreement with CCUSA. This agreement established that CCUSA would supply treated surface water to approximately 900 town water connections and approximately 50 county customers along the Route 460 corridor. The agreement set a wholesale water purchase rate of $1.86 per 100 cubic feet (748 gallons).

As part of the arrangement, a maintenance agreement was drafted under which the Town of Appomattox would act as an independent contractor for the county, maintaining the town-side infrastructure of the waterline. This agreement was initially approved for a five-year term, renewable every five years, and included provisions for metering, service installation, billing, and labor costs.

8 Construction and Activation (2011–2012)

Construction of the U.S. 460 waterline commenced in early 2011. The project involved laying 7.5 miles of 12-inch-diameter piping originating in Concord at U.S. 460 East, running westward to the Spout Spring Ruritan Club entrance and the Laser Car Wash. A 100,000-gallon elevated water storage tank was constructed in Spout Spring as part of the system. In Campbell County, a second elevated tank was built off Route 29, designed to increase system pressure and enable delivery of up to 800,000 gallons per day — a dramatic multiple of what the town's wells could ever produce.

By February 2012, the Town Council had approved a draft maintenance agreement with the county. The waterline was flushed and cleared; bacteriological testing was initiated. Town officials confirmed that four of the town's most productive wells would be retained as backup water sources, satisfying the Virginia Department of Health's requirement that a municipal system maintain at least two independent sources.

On July 24, 2012, the U.S. 460 waterline was formally activated for Town of Appomattox residents. Water drawn from CCUSA's treatment infrastructure began flowing through the new line. County residents who had signed up for service received access in August 2012. Interim Town Manager Bill Gillespie described the project as "a win-win for all involved," and by December

2012 residents were already reporting noticeably better-tasting water and improved soap lather compared to the groundwater they had previously received.

The new retail water rate structure adopted by the Town Council set a base charge of $10.00 for the first 2,000 gallons of monthly consumption and $5.80 per 1,000 gallons for usage above that threshold. These rates reflected both the CCUSA wholesale cost and the capital and operational costs of the local distribution infrastructure.

One unanticipated complication emerged in the months after activation: zinc content levels at the wastewater treatment plant did not decrease as expected, remaining in the 30–40 parts per million range (well below the permit limit of 249 ppm, but higher than hoped). Engineers suspected zinc had accumulated in the system's pipes and required additional flushing.

2001–02	Snowfall briefly replenishes wells; 2002 drought devastates supply; water rationing imposed
2003	Wiley & Wilson study: recommends U.S. 460 pipeline to Lynchburg/Campbell County ($16.4M)
2004	Region 2000 engaged as project manager; $50,000 joint study funded; out-of-town moratorium enacted
Nov 2004	Region 2000 revises costs: Concord connection $5.5M; Lynchburg connection $13M
Jul 2005	Board of Supervisors and Town Council vote to begin CCUSA negotiations
Oct 2005	Draper Aden Associates hired for hydraulic modeling ($14,900)
Jun 2006	Draper Aden study complete: total project $9M ($4.7M for Appomattox)
Oct 2006	County Supervisors vote 3-2 to proceed independently; town declines to participate
Oct 2007	Second drought: two wells shut off; State Health Department issues formal directive to town
Feb 2008	Town Council votes 5-0 to negotiate with county; independent engineer endorses waterline
Jul 2010	Town formally agrees to partner with county on waterline project
Early 2011	Water purchase agreement with CCUSA finalized; construction begins
Jul 24, 2012	U.S. 460 waterline ACTIVATED — treated water from CCUSA flows to Town of Appomattox

9 Post-Activation Era: Operation and Maintenance (2012–2019)

9.1 Economic Development Impact

Officials had long argued that an adequate water supply was the prerequisite for meaningful economic development along the Route 460 corridor. After activation, the waterline was indeed cited as a key infrastructure asset in several notable business recruitment efforts. In 2015, the Appomattox Industrial Park's upgraded infrastructure — including the 460 Waterline, sewer

capacity, three-phase power, and fiber optics — was credited as a crucial factor in attracting Xpress Natural Gas (XNG) to the park. County administrator Aileen Ferguson, in a 2015 retrospective on her 36-year tenure, listed construction of the water line among the county's major institutional achievements of the era.

Not all expectations were met, however. In 2015, outgoing Supervisor Willie Craft expressed public disappointment that the Route 460 waterline had not fully lived up to the development projections that had been used to justify it — an acknowledgment that the pipeline alone could not transform Appomattox's economic trajectory absent broader market conditions and additional infrastructure investment.

9.2 Water Quality Assurances and System Maintenance

In February 2016, following national alarm over lead contamination in Flint, Michigan, the Town of Appomattox proactively reassured residents about the safety of local drinking water. Public Works Director Jeff Elder and Town Manager Bill Gillespie confirmed that the town conducted monthly water quality testing and that CCUSA performed additional testing of the water before it left their facilities en route to Appomattox. This layered testing regime was presented as evidence that Appomattox's water supply met all applicable state and federal standards.

In fiscal year 2017, the town budgeted approximately $221,811 for waterline upgrades on Bandana, High, and Isbell streets — a capital improvement effort to replace smaller-diameter pipes and improve water flow, particularly for fire suppression purposes. The town's 1-million-gallon water tank was also scheduled for reconditioning and repainting. These investments reflected the ongoing need to maintain not only the CCUSA-supplied surface water infrastructure but also the legacy distribution network within town.

9.3 Water Rate Adjustments

The water rate structure was revised periodically through this era as costs evolved. In April 2019, the Town Council approved a water rate hike effective July 1, 2019, following months of public hearings. Rates continued to reflect both the wholesale cost paid to CCUSA and the town's capital improvement and maintenance obligations.

10 The Church Street Waterline Replacement Project (2020–2024)

10.1 Project Background and Scope

By 2020, sections of the Town of Appomattox's internal distribution network were significantly undersized. The oldest and most problematic section ran along Church Street and several connecting streets. The core project involved replacing approximately 6,225 linear feet of aging 4-inch water line with new 8-inch pipe, routed to avoid existing utilities and sidewalks. The affected right-of-ways included Church Street, Confederate Boulevard, Red House Road, and Morris Avenue. In addition to expanding hydraulic capacity, the project incorporated new fire hydrant installations and sewer improvements.

10.2 Funding

In September 2020, the Town Council approved a resolution to submit a Community Development Block Grant (CDBG) application to the Virginia Department of Housing and Community Development (VHCD) for the project. In January 2021, the town was awarded a $650,000 CDBG grant — a significant portion of the approximately $2.2 million total project cost. The town simultaneously pursued additional funding from the United States Department of Agriculture (USDA) Rural Development program.

By May 2021, Town Manager Gary Shanaberger reported that the CDBG award was in hand and a USDA decision was expected within 30 to 60 days. In July 2023, the Town Council authorized a $1,156,000 Water System Improvement General Obligation Bond through USDA Rural Development, carrying a 30-year repayment term at 1.2 percent interest — favorable terms reflecting the federal agency's support for rural water infrastructure.

10.3 Construction Progress

Construction on the Church Street Waterline Replacement Project formally commenced on October 16, 2023. The project was anticipated to span over one year, with significant disruptions to traffic and temporary interruptions of water service to affected properties. By February 2024, daytime detours were in effect around Red House Road, and the section of Church Street near Liberty Baptist Church was closed to traffic on weekdays from 7 a.m. to 7 p.m.

At an August 27, 2024 Town Council workshop, Interim Town Manager Rob Fowler reported that the project was approximately 80 percent complete. Council member Nathan Simpson noted resident complaints about completion timelines. The Council also discussed the impact of tractor-trailer traffic on the construction site, including a prior accident that had damaged equipment and contributed to delays. The project's completion, expected sometime in late 2024 or early 2025, would deliver substantially improved fire flow capacity and system reliability to the central town area.

A YouTube video series titled "Our Town Appomattox," produced by Reverend Carlton Duck in 2024, dedicated one episode to water line installation on Court Street as part of broader coverage of town infrastructure improvements.

11 The Campbell County Non-Renewal and the 2030 Crisis

11.1 CCUSA Announces Non-Renewal

In **July 2021**, the Campbell County Utilities and Service Authority (CCUSA) formally notified Appomattox County that it would **not renew its water supply contract upon its expiration on December 31, 2030**. The announcement, delivered approximately nine years before the contract's end date, gave Appomattox a defined but finite window to identify, plan, and build an alternative water supply. The reasons for CCUSA's decision were not extensively detailed in public records, but the practical effect was unambiguous: Appomattox would need to develop an entirely new water supply strategy within a decade.

The Appomattox Town Council held a workshop meeting on June 29, 2021 — days before the CCUSA announcement was publicly reported — to discuss long-range water supply strategies. Officials examined the possibility of reactivating the town's existing wells, which had been largely idle since the waterline's 2012 activation. A January 2020 maintenance agreement between the

county and the town, replacing the 2012 contract that had been set to expire in 2021, was already in place to govern the interim period.

11.2 Rate Adjustments and MOU for Out-of-Town Customers

In parallel with the strategic planning triggered by the CCUSA non-renewal, the town moved to address a longstanding inequity in water rates between in-town and out-of-town customers. In August 2021, the Town Council initially voted to increase out-of-town water rates to one and a half times the in-town rates. It subsequently became clear that an MOU from the Appomattox County Board of Supervisors was required before the rate change could take effect — reflecting the shared governance structure of the waterline. The County Supervisors approved that MOU in October 2021, and in December 2021 the Town Council unanimously re-voted to approve the rate increase, placing the new structure on a sound procedural footing.

In June 2023, the Town Council approved further rate increases effective July 1, 2023: the monthly in-town base rate for up to 2,000 gallons rose to $12.26, and the out-of-town rate rose to $18.39. These increases were partly driven by the investment costs of the Church Street project and partly by anticipation of the capital needs that the 2030 transition would generate.

11.3 The Water Master Plan

In November 2023, the Town of Appomattox selected engineering firm CHA Consulting, Inc. to develop the town's first comprehensive Water Master Plan since the late 1990s. The study was explicitly framed around the December 31, 2030 deadline, with a mandate to evaluate all viable water source options — including reactivation of existing wells, development of new wells, construction of a surface water intake, connection to a different regional supplier, or some combination thereof.

The selection of CHA Consulting came just weeks after the October 16, 2023 groundbreaking for the Church Street waterline project, positioning the town as simultaneously managing a near-term infrastructure replacement and undertaking long-range strategic planning for supply security. The parallel timelines underscored the complexity of the town's water governance situation as it approached the mid-2020s.

12 Water Rates and Financial History

Water rates in the Town of Appomattox have evolved substantially over the study period, reflecting shifts from a well-based system subsidized by general revenues to a regionally supplied system funded primarily through user fees. The following table summarizes key rate milestones recorded in the newspaper archive:

Year	In-Town Base Rate	In-Town Incremental	Notes
2004 (pre-reform)	$6.35 for 2,000 gal.	$3.00 per 1,000 gal.	Well-based; below cost of production
Jul 2006	$6.35 for 2,000 gal.	$5.54 per 1,000 gal.	Rate hike; out-of-town base raised to $12.70

May/Jun 2012	$10.00 for 2,000 gal.	$5.80 per 1,000 gal.	Adopted pre-activation; new CCUSA rate structure
Jul 2019	Rate hike approved	(specific amount not recorded in archive)	After months of public hearings
Dec 2021	In-town base (unchanged)	Out-of-town = 1.5× in-town rates	MOU with county required; re-voted unanimously
Jul 2023	$12.26 for 2,000 gal. (in-town)	Out-of-town base: $18.39 / 2,000 gal.	Church Street project and 2030 transition costs

The town's water and sewer systems have at various times operated at a deficit, requiring transfers from the General Fund to cover operational shortfalls. Engineering consultants repeatedly advised that water rates were set below the true cost of production, a structural problem acknowledged by officials as early as the 2006 rate increases. The trajectory toward full cost recovery has been gradual but consistent.

13 Wastewater System: Parallel Challenges

The Town of Appomattox's wastewater infrastructure faced its own set of significant challenges during this period, often intertwined with the water supply story.

Construction of the town's wastewater facility was completed in 2001, but almost immediately the concrete basins were found to have cracks and up to 2.75 inches of wall deflection — a consequence of design deficiencies that did not meet American Concrete Institute standards. A representative of the engineering firm Johnson, Mirmiran and Thompson (JMT) allegedly admitted at a July 2002 Town Council meeting that "we screwed up" and offered to cover repair costs, but the town ultimately had to pursue litigation. In 2007, JMT paid $1.164 million under a judicial settlement. Groundwater testing near the plant — required by the Virginia Department of Environmental Quality due to potential leakage from the cracked basins — was approved in May 2006 at a cost of $17,722.

A persistent copper contamination problem at the town's trickling filter wastewater treatment plant — caused by copper leaching from building plumbing into Caldwells Creek via the wastewater system — occupied the town for over seven years. The DEQ imposed a consent order and required a formal action plan. Solutions attempted included sequestering agents, soda ash pH adjustment, and a chemical treatment program using MIDFLOC 2603L. In May 2007, the Town Council added a provision to the town code limiting copper piping in new buildings to a maximum of five linear feet (with exceptions for fittings), and by July 2007 the town had finally reduced copper levels below the DEQ standard of 21 micrograms per liter.

By 2014, inspections of the town's approximately 90,000 feet of sewer lines revealed approximately a dozen cracks and holes causing significant rainwater infiltration into the trickling filter plant, which was receiving 345,000 gallons per day — more than four times its normal 75,000-gallon load. The town submitted a preliminary engineering report to the USDA in 2014 seeking federal funding to close the aging trickling filter plant. The estimated total project cost was $3.7 million. A groundbreaking ceremony for the Appomattox Wastewater Improvement Project

was held in November 2020, marking a milestone toward replacing the existing treatment center with a modern facility funded in part through a $3,780,000 Wastewater System Improvement Revenue Bond approved by the Town Council in July 2020.

14 Governance and Institutional Context

The water supply history of Appomattox County is inseparable from the institutional tensions between the Town of Appomattox and the surrounding county government. For much of the period from 2003 to 2010, the two bodies pursued divergent positions on the pipeline question, resulting in a governance structure in which the county purchased and owned the waterline infrastructure while the town ultimately became its primary customer — an arrangement that reflects the political compromises of that era.

Key institutional actors through this period included: Region 2000 Regional Commission, which served as project manager and grant coordinator; the Virginia Department of Health, whose formal directives to the town in 2007 ultimately broke the political impasse; the Virginia Department of Environmental Quality, which regulated both water supply planning and wastewater compliance; the USDA Rural Development program, which provided low-interest financing for multiple town infrastructure projects; and CCUSA itself, whose entry into and eventual withdrawal from the supply relationship has defined the town's most pressing current challenge.

The 2030 deadline imposed by CCUSA's non-renewal has introduced a new urgency to water governance in Appomattox. Unlike the 2002 drought, which was an acute crisis, the 2030 transition is a known, scheduled event with a defined timeline. The engagement of CHA Consulting for a comprehensive Water Master Plan in 2023 represents the town's most deliberate and systematic effort yet to address its long-term water supply — and brings the story of Appomattox water governance full circle from the improvised, crisis-driven decision-making of the early 2000s.