

**Final Feasibility Study
Presentation Questions
September 06, 2022**

On June 02, 2022, Loudoun County and Loudoun Water staff provided a virtual video presentation on the final Water Feasibility Study to the Village of Waterford. Community members provided comments to staff following the presentation. The questions received during the presentation comment period of June 02, 2022, through June 17, 2022, have been summarized below with staff responses.

The final Feasibility Study can be viewed at [loudoun.gov/Waterford study](https://loudoun.gov/Waterford_study) and the community presentation titled Waterford Feasibility Study can be viewed at the following link: <https://youtu.be/BK7f1DIJuZg>.

Important Note:

At the July 19, 2022 Board of Supervisors Business Meeting, staff from the Department of Transportation and Capital Infrastructure (DTCI) presented the 2022 Waterford *Preserving the Landmark* report ([Item #6](#)) which was an update to the Village's 2003 *Bury the Wires and Tame the Traffic* study. The updated report was completed upon the request of the Waterford Citizens Association and Waterford Foundation Inc. and incorporates recommendations from recent studies and provides comprehensive recommendations and updated high-level cost estimates for a program of infrastructure improvements. Included with those recommendations was Option #3 from the Waterford Feasibility Study. Ultimately the [Board of Supervisors](#) endorsed all recommended Village of Waterford improvements in the report for future planning and implementation, and further moved that the Board of Supervisors forward the request to fund the improvements to the Capital Improvement Program (CIP) FY2024 budget process for consideration and prioritization.

Please note the actions described above identifies an infrastructure project path that is not explicit to the Water and Wastewater Program (Program). Some Program steps and actions described in community meetings, presentations, and this question and answer (QA) document, while still valid steps in the Program, may need to be adjusted if the CIP project is approved.

Please note, all answers provided below are consistent with the Water and Wastewater Program policies only:

- 1) If Option 3, a community water system is pursued, can the project timeline be reduced

from a 6–7-year plan to 3-4 years? Is there a way that Loudoun Water, Dewberry, TetraTech & The Loudoun County Department of General Services work together with the WFI, Water Coordinators & the Village Parcel Owners to Expedite the project?

It is unlikely that a water project of this magnitude could be implemented within a 3-to-4-year timeframe. As mentioned in the Feasibility Study presentation there are many sequential steps that need to occur before design or construction can commence, such as defining the service boundary area through the Commission Permit process. This is a public process that can take 9 to 12 months, requiring public input from residents and other interested parties.

One of the major unknowns within the presented schedule is the duration of the land acquisition process – a treatment facility and community wells would need to be located somewhere in the vicinity of Waterford. In general, negotiations with property owners will take time. The acquisition of appropriate property is necessary prior to the system design and permitting by the relevant agencies. A test well and well development program will also be required to confirm the necessary yield to support the community.

In addition, all actions described above are dependent on project financing and funding. Following the QA period, an income verification review is completed as the next step in the Program process. Community financing or project funding is dependent on the results of the review. Additional information on project financing & funding and the income review are highlighted in question #12.

Should the community water system option be pursued Loudoun County and Loudoun Water, along with their consultants, will do their best to expedite the processes that are within their control.

- 2) The boundary for Option 3 includes a few large parcels in areas that are not significantly water scarce (transmissivity chart pg 19), is it best practices to align the final water parcel boundary to exclude large (ie >1acre) parcels that are in higher yield zones that are not as susceptible to well interference as smaller parcels?

Should a community water system be pursued, the service area boundary, as defined during the Commission Permit (CMPT) process, designates which parcels are eligible to receive water service. The Feasibility Study recommends the existing Waterford Sewer Service Area be used as the Water Service Area boundary. Study results, community input, staff input, a Pre-CMPT Application Conference, and other applicable information will all be used to determine the most appropriate final boundary.

- 3) The presentation shows fees for a quarterly water bill of 15,000 gallons a quarter to be estimated at \$79 a quarter or roughly \$26 a month. Please provide estimates for FY26 and FY29?

Loudoun Water updates their fees on a three-year cycle with 3% fee increases approved for FY23 and FY24. FY26 and FY29 are beyond the current cycle but historically, service fees will increase approximately 3% per year.

To learn more on Loudoun Water rates please review the quarterly bill slide at time 20:59 in the presentation and visit www.loudounwater.org/schedule-rates-residential-customers.

- 4) For Option 3, what is the ideal way to understand the cost for the parcel owner to connect their home to the installed water meter? Should the Citizens request bids from plumbers? Should this be coordinated with the project team? How could residents receive a discount by combining these with a few plumbers or contractors?

Obtaining bids from contractors would be a good first step in determining an estimate of potential connection costs. To help with this process Loudoun Water will provide the community a basic diagram of a typical water meter connection as the construction phase gets nearer.

Additional items to consider:

- Individual costs for lot connections will vary based on the distance from the structure to the water meter, existing site features (i.e. decorative landscaping, driveways, hardscapes) and interior plumbing modifications that may be required to make the connection.
- Costs can also vary due to current supply chain demands, rock or material that may impact trenching, and permits needed. If bids are obtained for estimation purposes, it may be worthwhile for the community to pick a few parcels that vary in topography and distance from the road.
- Permits/inspections will also be required prior to water service being provided. A connection permit and meter fee to install a water meter is required by Loudoun Water. Loudoun County Department of Building & Development inspects the service line from the meter to the building.
- Other Department permits that could potentially be needed:
Building Permit (Plumbing) <http://www.loudoun.gov/buildingpermits>
Health Department (Well Abandonments)
<https://www.loudoun.gov/4909/58330/Environmental-Health-Permits>.
- Obtaining a discount for combining multiple connections would need to be discussed with your contractor. Items to consider when discussing costs and combined work with your contractor might be, potential reduction in travel costs, bulk ordering savings, and the availability of a community staging area for equipment and material.

- The Virginia Department of Health provides the following informational link on obtaining private service providers.
<https://www.vdh.virginia.gov/environmental-health/onsite-sewage-water-services-updated/septic-system-and-private-well-service-providers/>

- 5) If Option 3 is selected and a Loudoun Water owned well goes dry or a well collapses or a well pump fails, is this Loudoun Waters responsibility to maintain? How will these failures effect a community water service?

Loudoun Water would be responsible for the operation and maintenance of the community system should Option 3 be selected. Loudoun Water's level-of-service standards require redundancies are in place, and reserve wells are identified before the system is brought into service, to accommodate a situation where a well were to run dry or other well failure should occur. Ongoing monitoring of the aquifer and proactive maintenance of systems would help prevent any outages within the community.

- 6) Relative to Option #2. This puts all the requirements on individual parcel owners to select parcel partner(s), try to find a location to drill, seek easement(s), legal arrangements & geological water fit locations and agreements for electricity, maintenance and all Capital and Operating expenses. An observation is, this is what has been tried since 1966 when the first water study came out suggesting a community water system was a prudent solution. We do not see this as a viable option for the sustainability to our community. This option is exceptionally difficult and onerous for parcel owners and does not solve for any commercial structures (ie WFI & LM). We believe the scoring for this is relatively to high given the track record for this not working and not providing solutions for all parcels that are water challenged (quantity and/or quality). How can you more accurately portray that option as an option with exceptionally more challenges than the report states?

Alternative Option 2 Shared Private Wells is a targeted, not community-wide, solution. As a private well system the responsibility of the system would fall to the property owners to initiate and construct.

The challenges associated with Shared Private Wells have been identified in the Feasibility Study on Pages 21 & 22 and in the scoring matrix Table 4.4 on page 37. These identified challenges are why this alternative was not the highest recommended solution.

The matrix scoring indicates that the requirements for individual homeowners to permit, design and construct these systems are challenging. In addition, the complexity of coordinating land acquisition, easements, and potential impacts with future home sales makes Option 2 not recommended.

During the process of developing the report, the project team met with Virginia Department of Environmental Quality and Virginia Department of Health regarding the use of shared private wells. While these solutions are approvable, they are not preferred due

to the complexities outlined above and should be considered a last resort should other options be deemed infeasible and there is no available groundwater within existing parcels.

- 7) If the Water Solution Option 3 is selected and the Waterford 2033 plan 'Preserving the Village' that includes Bury the Wires, Tame the Traffic, Storm Water, Potable Water, Sustainability and Walkability is approved by the BOS, how would the projects be sequenced and managed?

At this preliminary stage, project scopes have not been developed, therefore sequencing and management of the projects are still to be determined.

Any questions regarding the 2022 Waterford *Preserving the Landmark* Study would be directed to the Loudoun County Department of Transportation and Capital Infrastructure (DTCI).

- 8) Will there be a study for water quality issues by the health department? It has been reported by Several homeowners they have water quality issues more than water quantity owners, they see option 3 solving this.

Currently, there is no plan to investigate water quality issues within Waterford. Should Option 3 a community water system be implemented, water quality issues will be resolved.

Additional points of clarification:

- Quantity, not Quality, was addressed as the primary concern in Waterford, so the Scope of Work did not reflect testing outside normal desktop quality analysis procedures. In addition, staff received no comments regarding testing following the Draft Scope of Work presentation.
- Water quality is a very important topic that all private well owners need to be effectively educated on. Should a community system be pursued, development of this infrastructure will take years to complete. During this time private wells owners have the responsibility of maintaining their water supplies, which requires routine testing and proper operation and maintenance.

If a private well owner has water concerns, the Loudoun County Health Department (LCHD) can provide suggestions on well testing, well operation and maintenance, and actions necessary to address immediate well water issues. The LCHD can be reached at 703-777-0234. Helpful Link:

<https://www.vdh.virginia.gov/environmental-health> (choose private well tab).

- Should a well issue in the community be discovered, in which corrective and needed actions cannot be completed due to a household income issue, please contact Scott Fincham at 703-771-5520 for assistance. Staff will explore local programs to determine if a Local or State program may be available to assist.

- Additionally, the Virginia Cooperative Extension (VCE) operates the [Virginia Household Water Quality Program](#), which provides useful information to homeowners on private water systems, and holds routine Drinking Water Clinics that allow home owners to obtain affordable water testing, and interpretation of water results. The Loudoun County Department of Extension Services have recently been providing two clinics a year. For more information contact the VCE at 703-777-0373.

9) Will developers or developed parcels outside of the water service area be allowed to connect to the water system? It is our understanding this is not prohibited, and we would like you to clarify that again.

A Commission Permit (CMPT) is required to establish a Water Service Area. Only parcels **within** the established Water Service Area will be allowed to connect. Any parcel within a Water Service Area will have equal opportunity to connect.

The appropriate reference to policies in the Loudoun County 2019 General Plan addressing a CMPT are in Chapter 6,

- Strategy 4.6.C. “Support construction of community systems for existing rural communities facing a potential public health risk. In such cases, the community system may be available to undeveloped lots within the existing community to support development that extends the viability of the community and is consistent with the scale, density, and character of the community.”
- Strategy 4.6.E “Require a Commission Permit establishing a defined service area, prior to the construction of any community water or wastewater system.”

10) Hillsboro received funding through a few sources for their community water system. One funding source was the LC BOS CIP process through the bond referendum, as we understand it. If option 3 is selected, is this funding source available for the capital expense of this project? Do we have time to make the FY24 funding cycle for an approved Capital Improvement Project?

- The Board of Supervisors current process is to consider capital project requests from incorporated “[Towns](#)” through adopted council resolutions. Typically, transportation and pedestrian improvements have been prioritized for the CIP, and especially those with a demonstrable countywide impact. From a timing perspective, requests from Towns are due on August 31, 2022 and a copy teste and approved resolution from the town council by September.
- For projects like Waterford, which is an unincorporated village and not a Town, the Board of Supervisors would have to recommend the project be forwarded to a capital budget process for prioritization, including in FY2024.

11) If Option #3 has been approved and completed, we would like to confirm residents can keep an existing well for irrigation as long as the systems are not interconnected, please confirm.

Staff reached out to the Loudoun County Health Department (VDH) on this question:

- The LCHD informed staff that existing wells could be kept for irrigation or non-potable purposes.
- However, if an existing well is being encroached upon by a new improvement (water infrastructure, structure, or septic component etc.), and it will not meet the requirements in Loudoun County Codified Ordinance Chapter 1040, then it must be abandoned. This would usually be addressed during a Health Clearance check request by the Building Department.
- The LCHD also addressed that for wells that will be abandoned, the property owner will adhere to Loudoun County Codified Ordinance Chapter 1040 Water Wells which states:
"...The owner of any permanently abandoned well shall immediately fill and/ or seal the well with cement or bentonite clay or other equally suitable material under supervision of the Health Director. Permanent abandonment occurs when a well is no longer in active use and/or when the construction of the well no longer meets the requirements of this chapter. As used in this subsection, " immediately" means within forty- eight hours of drilling completion if the well to be abandoned yields insufficient water, or within thirty days if a previously constructed and operational well is abandoned.."
- It is also important to note that if a potable well is not abandoned and remains in place for irrigation purposes, Loudoun Water will need to ensure, through an inspection, that there are no cross-connection issues at the time of water meter installation.

12) Given the governance model for the Village of Waterford is the Loudoun County Board of Supervisors, how will the BOS be informed of the most effective solution and the plans to seek funding for implementation of this solution?

To date the Board of Supervisors (Board) has been provided details on milestones of the Waterford project, including the completion of the Feasibility Study which identified the recommended solutions. Further details and staff recommendations will be provided to the Board once the project progresses.

Funding for Water and Wastewater Program projects are outlined in the Water and Wastewater Projects Funding Policy (Policy), which can be viewed at www.Loudoun.gov/WaterProjects. This policy establishes the approach and procedures that the County will follow in providing financial support to communities that have been prioritized for water and/or wastewater projects. Financial support could include grants, state and federal loans, bonds, private donations, and local tax funding. The process begins with a community income verification review as outlined in the Policy. Any deviations from this Policy requires Board direction.