

April 16, 2025

Project Name: Town of Warsaw Well No. 4 Abandonment and Replacement

Location (City/County) Warsaw Richmond County

VIRGINIA DEPARTMENT OF HEALTH (VDH)
OFFICE OF DRINKING WATER (ODW)
FINANCIAL AND CONSTRUCTION ASSISTANCE PROGRAMS (FCAP)



HARD COPY
APPLICATION SUBMISSIONS:
Virginia Department of Health
Office of Drinking Water
109 Governor Street, 6th Floor
Richmond, VA 23219

DWSRF & BIL deadline May 2, 2025

DIGITAL
APPLICATION SUBMISSIONS:
DWSRF Applications at vdh@virginia.gov
Format the email subject as follows:
FY26 DWSRF Application – City/County
– Project Name”

APPLICATION FOR CONSTRUCTION FUNDS

Application also available at: <https://www.vdh.virginia.gov/drinking-water/fcap/drinking-water-funding-program>

TYPE OF FUNDING REQUESTED

Drinking Water State Revolving Fund (DWSRF) Bipartisan Infrastructure Law (BIL) Either

Lead Service Line and other Lead Projects should use separate Applications

If you selected "Bipartisan Infrastructure Law (BIL)" or "Either" above, indicate which category below. Applications for BIL Emerging Contaminants will also be considered for funding under the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program. If the application is not specifically for an Emerging Contaminants or Lead Service Line (LSL) project, then check the box for Supplemental.

Emerging Contaminants Lead Service Line (LSL) Supplemental

IS THIS AN INDEPENDENT CONSTRUCTION PROJECT?

- Yes, the scope of this project only includes Construction work. Therefore, it only requires applying for Construction funding.
- No, the scope of this project includes other Lead-Service Line (LSL) work and will require submittal of a separate LSL/LEAP Application in addition to the Construction Application.

LSL Project Name: _____

Applicants are advised to schedule the required Field Office Scope Review Meeting with the appropriate ODW Field Office at least 30 days prior to deadline.

PRE-REQUIREMENTS FOR FUNDING

If you answer **YES** to either of these questions; **STOP** as you are not eligible to apply for funds.

- 1. Have you been debarred or suspended from applying for state or federal funds? Yes No
- 2. Is your waterworks state, federally, or tribally owned? Yes No

PRE-REQUIREMENTS FOR CONSTRUCTION APPLICATIONS

If you answer **NO** to any of these questions; **STOP** as you are not ready to apply for construction funds.

Please contact us to work with you on planning the project.

- 1. Are you either a community or non-profit noncommunity waterworks? (Or will become one?) Yes No
- 2. Have you had a Field Office Scope Review Meeting with ODW's Field Office? Yes No
- 3. Source – Not Applicable-project is for new well or filing as a consecutive waterworks.
Do you have an adequate drinking water source or source agreement contract? Yes No
If "Yes", provide documentation from ODW's Field Office that the source or contract is adequate.
- 4. User Agreements for new service area customers - Not Applicable
Do you have executed agreements or commitments from your initial survey from a majority of customers in the project area? Yes No
If yes, please provide an area map indicating existing potential connections and indicating those committed.
NOTE: Mandatory hook-up ordinance does not substitute for obtaining agreements or commitments to connect.
- 5. Do you currently or will you have less than three open DWSRF projects by August 1, 2025 (prior to the next awards)? Yes No

SECTION A - PROPOSED FINANCING

1. a. VDH Funding Assistance Needed \$ 1,395,250

b. Other Funds Available, provide details below:

Amount	Name/Type of Funds	Status of Other Funding (Approved, Pending, indicate loan terms, date available, etc.)
1 _____	_____	_____
2 _____	_____	_____
3 _____	_____	_____
4 _____	_____	_____

Subtotal: \$ 0

c. Total Project Cost (1a + 1b) = \$ 1,395,250

Provide funding documentation as Attachment J1.

SECTION B - PROJECT, ORGANIZATIONAL, AND CONTACT INFORMATION

1. Project Name: Town of Warsaw Well No. 4 Abandonment and Replacement Location (City/County) Town of Warsaw, Richmond County, Virginia

2. Waterworks info: New Existing
 Community PWS ID number: 4159900 System Name: Town of Warsaw
 Nonprofit noncommunity PWS ID number: _____ System Name: _____
 Ownership Type: Publicly owned Investor/Privatey owned Other: Explanation: _____

3. Legal Owner of Waterworks or Authorized Agent:
 a. Name: Town of Warsaw
 b. Address: P.O. Box 730 Warsaw VA 22572
Street Address/P.O. Box Town/City State ZIP
 c. Contact Person: Joseph Quesenberry, Town Manager
 d. Telephone Number: 804-333-3737 Alternate Number: 804-313-5411
 e. FAX Number: 804-333-3104 E-mail Address: jquesenberry@town.warsaw.va.us
 f. Federal UEI #: 54-6001665

4. Engineering Consultant (If applicable):
 a. Firm Name: ARM Resource Partners
 b. Address: 9560 Kings Charter Drive Ashland VA 23005
Street Address/P.O. Box Town/City State ZIP
 c. Preferred Contact Info:
 Contact Person: Scott Courtney, PE Principal Engineer
Name Title
 Telephone Number: 804-550-9257 Alternate Number: 804-263-4891
 E-mail Address: scourtney@armgroup.net Alternate E-mail Address: _____
 FAX Number: _____

SECTION C – PROPOSED PROJECT DESCRIPTION – Provide Documentation

Please provide a brief summary and a detailed project description including a map/sketch depicting the project area and proposed facilities including length of waterlines, storage tank(s) sizes, etc. (Sketches on 8 1/2 by 11 portions of topo sheets are adequate.)

I. Brief Summary

- A. Briefly describe the public health issue, concern, or problem that this project intends to correct or address. This can include resiliency, redundancy, reliability, climate change, or green project related issues. Attach supporting info as necessary.**

This project addresses the critical public health concern on ensuring resilient and long-term access to adequate drinking water in the face of climate change and declining freshwater availability. Shifting climate change patterns have lowered freshwater tables and reduced precipitation, all of which threaten the reliability of existing water supply systems. This project aims to enhance resiliency, redundancy, and sustainability in water infrastructure to safeguard the community against water scarcity and loss. By implementing this green infrastructure with environmentally sound strategies, such as a low carbon footprint, this initiative supports both environmental and public health goals by ensuring safe, clean, and reliable drinking water for future generations to come.

- B. Briefly describe the proposed project scope of work by size (e.g., diameter, volume, pump capacity) and units (e.g., linear feet for pipe and number for tanks and pump stations).**

The proposed project scope involves the construction of a new 10-inch diameter well to a depth of 694 feet, replacing the existing well No. 4. The new well construction holds a pump capacity of 475 gallon per minute (gpm), and will be constructed within the existing well lot. The scope of this project includes: 1 well pump with 475 gpm capacity, observation well, well piping and electrical controls, abandonment of the existing well, integration with the existing 500,000-gallon elevated storage tank, and use of a 150 kW emergency (existing) generator on-site. This projects design will maintain the Town's permitted withdrawal capacity of 420,000 per day.

- C. Briefly quantify the benefits expected to be realized (or problems corrected) upon successful completion of the project.**

The replacement of Well No. 4 will deliver the measureable public health and infrastructure benefits: regulatory compliance with the Virginia Department of Environmental Quality and Virginia Department of Health requirements, which helps avoid penalties and ensures long-term operational certification, preservation of 420,000 gallons per day of permitted groundwater withdrawal capacity, ensuring continued service for over 2,000 equivalent dwelling units within the Town of Warsaw, improved operational efficiency via the installation of a new, energy efficient pump and upgraded electrical controls, reducing energy consumption and maintenance costs, and protection of groundwater resources through the proper abandonment of the existing well and installation of bentonite seals to prevent aquifer cross contamination.

II. Demographics

- A. Describe income levels in the proposed project area.**

According to the U.S. Census Bureau's American Community Survey (ACS) 2016-2020 5 Year Estimates, the median household income in the Town of Warsaw was \$57,150 in 2020 inflation-adjusted dollars. This income level is significantly below both the VA state median income of approximately \$76,398 and the national median of \$64,994 for the same period. The data indicates that the Town of Warsaw qualifies as a moderate to low income community which underscores the importance of securing external funding to ensure delivery of safe drinking water without placing additional financial burdens on residents.

- B. Describe the community that benefits from the proposed project.**

The proposed project will serve the Town of Warsaw, a small but growing rural community located in Richmond County, VA. Warsaw functions as the commercial and institutional hub of the Northern Neck with a mix of residential neighborhoods, small businesses, light industrial facilities and key institutions such as Rappahannock Community College. Warsaw owns and operates its public water system which serves 933 customer accounts and over 755 dwelling units. The system provides water service to both residential and commercial users within and just outside of Town limits. Well No. 4 which has been in service since 2001 must be replaced to comply with regulations, as well as ensure access to safe and reliable drinking water for all users.

It is critical to maintain public health and economic vitality in a community with limited financial resources.

- C. Describe the type, number, and stories of structures (primary residences, vacation homes, industrial buildings, etc.) and amount of vacant land for the area that benefits from the projects. If the area contains a significant number of vacation homes or homes that are typically occupied less than half of the calendar year, then please provide details.**

The Town of Warsaw, Virginia, currently comprises an estimated 600 to 700 housing units, with the majority being detached single-family homes. These residences form the backbone of the Town's residential landscape. While apartment developments are presently limited in number, they are expected to influence zoning strategies and land use decisions moving forward. Vacation homes are not a prominent category within the town, reflecting its rural character and inland location. However, Warsaw maintains a robust commercial and industrial sector, with numerous light manufacturing facilities, small businesses, restaurants, and retail stores occupying a variety of industrial and commercial buildings. The Town's zoning ordinance supports a diverse range of development types, including residential Zones R-1 and R-2, commercial Zones C-1 and C-2, and industrial Zones I-10. Additionally, the town has approximately 821 acres of undeveloped land, presenting a significant opportunity for

- D. Median Household Annual Income (MHI) of area to be served \$ 57,150 /year** new construction and infrastructure expansion

DATA AS ATTACHMENT J2: Use the census block or latest update for county/city towns (<http://data.census.gov>). Provide project specific income survey data for those projects not large enough to be identifiable via census information.

If you have applied or will apply to other funding agencies that require an income survey, attach the results to this application. For efficiency, consider doing income and user agreement surveys at the same time. For assistance, please contact VDH-ODW.

SECTION D – PROJECT ISSUES – Provide documentation as Attachment J3 of each yes answer.

Presented here are relative issues that need consideration for construction projects:

1. Health Issues	Yes	No
Is there a <i>Surface Water Treatment Rule</i> violation, i.e., inadequately treated surface water or groundwater under the influence of surface water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there persistent <i>Total Coliform Rule</i> or nitrate standard violations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a continuing <i>Boil Water Notice</i> in effect? Reason: _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a Health Hazard declaration by the State Health Commissioner, a State Declared Emergency, or have you been issued a formal enforcement order?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there persistent PMCL violations for contaminants such as VOC, SOC, IOC, RAD etc.? (Identify contaminate(s))	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there Lead and Copper Action Levels Exceedances?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there known Lead Service Lines that are to be removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the waterworks have an Enforcement Targeting Tool (ETT) score ≥ 11 ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project resolve conditions of inadequate quality and quantity of a groundwater source water supply?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the project ensure that drinking water receives appropriate treatment to protect the health of the consumers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project prevent conditions favoring the entrance of contaminants into the distribution system, e.g., inadequate pressure, inadequate storage, system water losses, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there inadequate individual water supplies documented via report and letter by the District Health Director to show health hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provide as Attachment J3 supporting report and data with representative samples from at least 50% of the homes in the project area. The samples are to be evenly spaced and all potential line segments sampled. The project map will illustrate the results and problem areas.		

2. Regionalization – Has regionalization been considered? Will this project consolidate failing, non-complying, or underperforming waterworks or improve resiliency? Explain below:
Formal regionalization of waterworks is not part of this project. The Town of Warsaw has actively coordinated with the Northern Neck Planning District Commission (NNDC) and other state and federal agencies to secure funding and technical support for water infrastructure improvements. There are no alternative public or private water systems available in the region that could provide a viable interconnection or consolidation opportunity. The option to purchase water from another utility was dismissed due to the absence of such systems. However, replacing Well No 4, which does not meet VDH construction standards, will ensure compliance, support and maintain the capacity to grow, and enhance environmental protection.

SECTION E – SCHEDULE AND READINESS TO PROCEED

1. Readiness to proceed. This application assumes you have not initiated design or construction. IF this is not the case, please contact VDH.
 - (a) For new service area customers, please document number of user agreements or commitments obtained in:

Initial Survey _____	Residential _____	Other _____
----------------------	-------------------	-------------

*The initial survey must obtain executed agreements or commitments from at least a majority of the homes in the project area. Continuation of the initial survey is a requirement, and the final survey result is intended to obtain 80% or more for the project to be feasible from a positive cash flow perspective. Provide as Attachment J4 a project map indicating existing potential connections and indicating those committed. **NOTE:** Mandatory hook-up ordinance does not substitute for obtaining agreements or commitments to connect.*

April 16, 2025

(b) Please provide a copy of the meeting minutes from the Field Office Scope Review Meeting. In addition, please provide letter reports, design notes, and the Preliminary Engineering Report for the project if they have been prepared as **Attachment J5**.

(c) New construction timeline – Use the Construction Project Schedule on our website to plan your project. <https://www.vdh.virginia.gov/content/uploads/sites/14/2019/01/BI-Construction-Project-Schedule.xlsx>. This document will be required as part of the initial meeting if your project scores high enough to receive funding. The anticipated schedule must be provided below.

ACTIVITY	ANTICIPATED COMPLETION DATE
Engineering Procurement	Within 30 days of project start-up
Submit PER	Submitted August 30th, 2023
Submit P & S	150 days from project start-up
Environment Review	Within first 90 days of project start-up
Advertise Project for Bid	210 days from project start up
Open Bids	240 days from project start-up
Award Project	270 from project start-up
Substantial Completion	480 days from project start-up

SECTION F -STATISTICAL DATA REQUIRED FOR TECHNICAL, MANAGERIAL, & FINANCIAL (TMF) REVIEW

1. Connections and Population:

ID	Data Description	Connections	Population ⁽⁴⁾
a.	Existing residential – Entire System	755	2,281 (2022 est.)
b.	Existing total – Entire System	933	2,800 (est.)
c.	Project residential ⁽¹⁾	755	2,281
d.	Project total ⁽¹⁾	933	2,800 (est.)
e.	Future residential ^(2, 3)	321	3,051
f.	Future total ^(2, 3)	1,254	3,051 (est.)

Notes:

- (1) New connections and/or existing connections that benefit from the project.
- (2) For a water line extension project, e. = a. + c. and f. = b. + d because new connections are being added. For any project that benefits existing connections only, e. = a. and f. = b., and then c. and d. will reflect how many existing residential and total connections, respectively, benefit from the project.
- (3) For a project that benefits existing connections (e.g. water line replacement) **and** also adds new connections (water line extension) then c. and d. will reflect how many residential and total connections, respectively, benefit from the project (connections that benefit from the project + new connections). In this case, e. = a. + new residential connections added and f. = b. + new total connections added.
- (4) Provide population estimates based on the previous column (connections).

2. Water Usage and Losses

a. What is the current monthly average number of gallons of water used per residential connection? 1,531 gallons/month.
Use total annual gallons billed for in-town residential customers divided by 12 months and divided by the total number of in-town residential customers. Provide supporting documentation as **Attachment J6**.

b. Provide the percent of water loss within the system. Unbilled authorized consumption (e.g., firefighting) should be excluded. Provide supporting documentation as **Attachment J7**.

Water losses as a percentage of total production. = 4 %

- This percentage includes: Real water losses (Physical losses from leaks/bursts in the distribution lines and tank overflows)
 Apparent water losses (includes metering inaccuracies and unauthorized usage [theft/illegal use])

3. Individual water meters are on:

- All services
- Only commercial accounts
- Only residential customers
- Some services: Provide additional information: _____
- None are metered.

If none are metered, is metering included in this project? Yes No.

Explanatory statement, if appropriate: _____

4. Rates: Attach rate schedules as Attachment J8

- a. Existing monthly water charges (explain here): With this is \$14.00 for water up to 4,000 gallons for residential. All other monthly service government rates are \$42.00 for water up to 4,000 gallons. _____
- b. When were water rates last increased? Please provide dates and amount/percentage of increase as Attachment J8. _____
- c. What is your connection fee for water? Connection Fee = \$25.00, Tap Fee (Residential) = \$8,000 _____
- d. Are rate increases anticipated as a result of this project? Yes No
If yes, please provide the amount and percentage increase expected and the anticipated effective date for the increase(s) _____

5. Water Users

a. Service Area Jurisdictions	b. # Of Existing Residential Connections	c. # Of Project Residential Connections at Completion
Town of Warsaw, Virginia	755	755
_____	_____	_____
_____	_____	_____

d. Existing drinking water usage 185,784 gpd. 37 % Residential 63 % Nonresidential

c. As Attachment J9, identify Ten (10) Largest Users of the Water System and Estimated Monthly Consumption per user. _____

6. Determine Average Monthly Residential Water User Rate: 172.31

Provide an average monthly residential water user rate analysis as Attachment J10 - using VDH project only template.

Average Monthly Residential Water User Rate = \$44.61 /month

7. Target User Rates:

Target user rates are set as a percent of Median Household Income (MHI). The annual MHI utilized for a project is to be based upon the latest census figures or latest update for the city, town or county in which the waterworks is located. Multiply by 0.01 (or 1%) and divide by 12 months to get the monthly target rate.

$$\text{MHI (from item Section C, II, D. Above)} = \$57,150 \div (12 \text{ months/year}) \times 0.01 = \$47.625 / \text{month. This is your Target User Rate.}$$

8. Evaluate Current Rate Structure:

Does the value in Item 6 (water user rate) equal or exceed the value in item 7 (target user rate), above? Yes No

If you answered "Yes", your waterworks/project may qualify as **Disadvantaged**. However, rate increases/adjustments may be required to meet debt obligations or pass a VRA credit review.

If you answered "No" then the information indicates the owner may need to adjust water rates to ensure adequate revenues. Having adequate financial resources is crucial to maintaining a successful and sustainable waterworks. Furthermore, EPA mandates that all borrowers receiving program assistance must demonstrate full financial capacity in order to receive funds.

Signature Date	
----------------	--

SECTION I – APPLICATION CERTIFICATION

By signing this application, you are certifying that you have been authorized to apply on behalf of the Owner or Controlling Board.

Submittal of this application is only a starting point for discussion and is not a binding agreement on either party.

Incomplete information may result in the delay or rejection of the application request.

The undersigned representative of the applicant certifies that the information contained herein and the attached statements and exhibits are true, correct, and complete to the best of their knowledge and belief. The undersigned agrees to clarify or supplement information pertaining to this application upon request. The undersigned recognizes that the information contained herein may be subject to state Freedom of Information Act requirements. **The undersigned acknowledges that a part of any interest required on a closed loan can be used by VDH to support the drinking water program.**

Owner or Chief Administrative Officer of Waterworks:

NAME and TITLE: Joseph N Quesenberry, Town Manager

ORGANIZATION: Town of Warsaw

SIGNATURE :  DATE: 8-1-2025

SECTION J -- REQUIRED ATTACHMENTS -- Please check those attached and label your attachments with corresponding numbers (i.e., J1, J2, etc.).

- J1) Other Funds Available (e.g., Letters of conditions, award letters, etc)
- J2) Median Household Income -- including site income surveys if census information not at project level.
- J3) Project issue documentation.
- J4) Results of user agreement/commitment initial survey with project map. NEW CONNECTIONS ONLY
- J5) Field Office Scope Review Meeting documentation/notes or VDH-Office of Drinking Water letter/email waiving this requirement. If a Preliminary Engineering Report has been drafted for this project, include a copy of that also. Any letter reports, design memos, or alternatives analysis should be included in this section. Regionalization should be considered as an option.

****Required for Technical, Managerial, Financial (TMF) Review****

- J6) Monthly average of residential water usage. Use total annual gallons billed for in-town residential customers divided by 12 months and divide by the total number of in-town residential customers.
- J7) Supporting documentation used to determine the percent of leakage in the system. For this application, leakage is the amount of real water lost in the distribution system lines and tanks from cracks, leaks, and tank overflows divided by total water production. Should match Section F.2.b.
- J8) Current rate schedule for water connection fee for water and date of last increase.
- J9) Listing of 10 largest water & sewer users and estimated monthly consumption per user.
- J10) Average Monthly Residential Water User Rate Analysis -- using VDH project only template. https://www.vdh.virginia.gov/content/uploads/sites/14/2022/02/J-User_Rate_Analysis-v2_28_2022.xlsx
- J11) Outstanding debt amount and with whom
- J12) For the proposed project -- a cash flow analysis of revenue -- using VDH project only template - and expenses (operating budget) showing as a bottom-line funds available for debt service https://www.vdh.virginia.gov/content/uploads/sites/14/2022/03/Project_Cash_Flow_Template_2021-1_v2020.03.09.xlsx
- J13) One copy of the latest interim (unaudited) financial statement. (Budget vs. Actual Expenditures)
- J14) One copy of the current year budget.
- J15) One copy of the most recent annual audits.
- J16) Letter from VDH-ODW that the AMP has been accepted (if applicable) If AMP has been accepted by VDH-ODW, documentation that the proposed project is included.

Items may be submitted in PDF format.

Items J10 and J12 may also be included in spreadsheet format. Please make note on the application that the information is included in the attached digital material.

