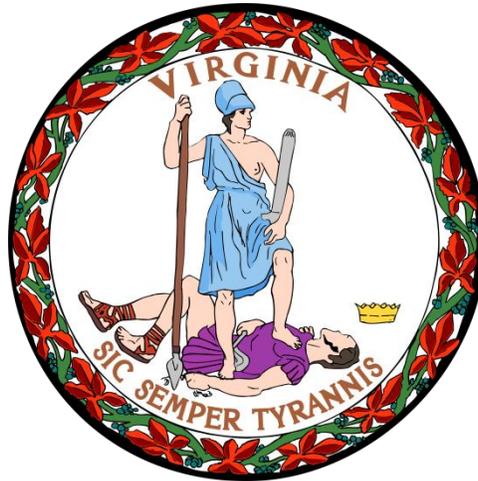


COMMONWEALTH OF VIRGINIA DRINKING WATER STATE REVOLVING FUND PROGRAM

PROGRAM DESIGN MANUAL

January 26, 2018



This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement 66.468 to VDH. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products possibly mentioned in this document.

IN MEMORIAM:

VDH-ODW is saddened to report the loss of two of its dear friends, team members, and significant contributors to the success of the DWSRF Program. We appreciate their years of dedication, hard work, and endeavors in bringing much needed drinking water to the people of Virginia.

Thomas Andrew Slack, 74, of Midlothian, died peacefully in his sleep on Wednesday, May 10, 2017. He will forever be remembered for his kind and gentle spirit, his contagious laugh, and his constant devotion to making life better for anyone who's life he touched.



James Dale Kitchen, 65, of Lexington died on Monday, August 7, 2017 in Roanoke, following a traumatic brain injury caused by an accident at home. Dale was a devoted husband and loving father, a proud Eagle Scout, and a lifelong Boston Red Sox and Minnesota Vikings fan. His friends and family will miss his love, loyalty, kind nature, and commitment to being super cool.



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Application Packages (available on VDH’s Website)

- 1) Construction Loans (includes instructions and worksheets)
- 2) Refinance loan Applications
- 3) Planning and Design Awards and
- 4) 1452(k) Loans for Source Water Protection Initiatives
- 5) Public Comments and Set-Aside Suggestions Form

Other Factsheets / Forms (available on VDH’s Website) at:

<http://www.vdh.virginia.gov/drinking-water/financial-construction-assistance-programs/drinking-water-funding-program-details/>

- A.1- Program Comment and Set-Aside.docx
- A.2- Program Comment and Set-Aside.pdf

- B.1- Construction Project Schedule.xlsx
- B.2- Construction Project Schedule.docx

- C- Cash Flow Template.xlsx
- D- Resources Available.pdf
- E- Example Resolution.pdf
- F- Blank Income Survey.pdf
- G- Factsheet MBE-WBE.pdf
- H- Certification Regarding Lobbying.pdf
- I- Building Financial Sustainability.pdf

I. INTRODUCTION - VIRGINIA DRINKING WATER STATE REVOLVING FUND (DWSRF) PROGRAM

The federal Safe Drinking Water Act Amendments of 1996 (P.L. 104 -182), referred to as SDWA, established a Drinking Water State Revolving Fund (DWSRF) Program. Funds for the DWSRF are awarded to eligible states through a capitalization grant.

The Virginia Department of Health (VDH) has had primary enforcement responsibility, primacy, for SDWA since 1977. Therefore, VDH has been designated as the agency to apply for and administer the capitalization grant for the DWSRF and the associated state funds.

Funds awarded to a state through a capitalization grant are categorized into two uses; (i) non-project funds or set-asides and (ii) project funds which are to be utilized for construction at public drinking water systems (waterworks). Set-aside funds enhance the ability of the state and owners of waterworks to ensure a waterworks' long-term capacity to produce safe drinking water and to protect construction loan investments. Construction funds for waterworks are to be utilized to address public health problems and to ensure compliance with the provisions of the SDWA. No application fee is required to access the Virginia DWSRF program.

A 20% state match is required to obtain the capitalization grant. The matching funds must be deposited into a dedicated state loan fund on or before the date the state receives federal grant payments. The *Virginia Water Supply Revolving Fund* (§62.1-233 et seq. of the *Code of Virginia*) has been chosen by VDH as the dedicated state loan fund for Virginia. Under this state law and in conjunction with VDH, the Virginia Resources Authority has certain responsibilities for individual loans.

The development of an annual Intended Use Plan (IUP) is a required part of the application (§1452 (b) of the SDWA) for a capitalization grant. An IUP must describe how the capitalization grant will be expended, including all set-aside and construction funds.

Congress has set the following goals in the use of the DWSRF funds:

1. Assistance to Small Waterworks: A minimum of 15% of the amounts credited to the loan fund as loan assistance to waterworks that regularly serve fewer than 10,000 persons.
2. Green Project Reserve (GPR): A minimum of 20% of the capitalization grant to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities.
3. Additional Subsidization: Twenty percent of the capitalization grant for additional subsidies must be provided to communities that could not otherwise afford such projects. The State has the option to apply up to a maximum of 30 percent of the capitalization grant as additional subsidization. To further ensure sustainability of projects receiving additional subsidies, these subsidies should be directed to: 1) repair, replacement, and upgrade of infrastructure in existing communities; 2) investigations, studies, or plans that improve the technical, financial and managerial capacity of the assistance recipient to operate, maintain, and replace financed infrastructure; and/or 3) preliminary planning, alternatives assessment and eligible capital projects that reflect the full life cycle costs of infrastructure assets, conservation of natural resources, and alternative approaches to integrate natural or “green” systems into the built environment.

The Commonwealth intends on using the described bypass procedure or revise offers if necessary to meet these goals.

All applicants for financing must comply with all applicable federal and state law, regulation or other requirements.

II. PROGRAM GOALS:

VDH based this Program on the fact that safe drinking water is essential to public health. The goal of VDH in administering the capitalization grant is to provide a comprehensive and integrated technical and financial assistance program to waterworks owners through a balanced approach of using set-aside funding and construction/project loan funds.

Another important VDH goal is to use the DWSRF Program goal to assist waterworks in building long term financial sustainability and developing adequate financial capacity for necessary maintenance and infrastructure improvements. As part of the application process VDH recommends all owners use the VDH guidance information to evaluate the current financial health of their waterworks, to evaluate their ability to accept new debt, and to affect changes needed to grow revenues to support these efforts.

VDH reserves the right to require measures that build financial health and financial sustainability of the waterworks as a condition of any loan or principal forgiveness offer acceptance and in compliance with EPA's capacity building expectations.

The final goal is for VDH to effectively manage the EPA grant, state match, earnings, and repayment funds in a fiscally sound, equitable, and responsible manner so that loan funds will be available in perpetuity to waterworks owners for infrastructure improvements.

III. DEMONSTRATION PROJECT FOR STATE OF VIRGINIA

The Environmental Protection Agency (EPA) authorizes Virginia to establish a special demonstration project to loan funds to a regional endowment to "...finance new drinking water facilities..." in an area of Southwest Virginia encompassing Planning Districts 1 and 2. The Coalfield Water Development Fund, Inc. (CWDF) was established to assist in meeting the special needs of Southwest Virginia.

IV. ELIGIBLE APPLICANTS

Owners of a community waterworks or nonprofit non-community waterworks are eligible, except for state, federal, or tribal governments. Suspended or debarred owners are ineligible. Other requirements may apply.

A. Construction Loans:

1. SDWA in § 1452 states "...no assistance shall be provided to a public water system that: (i) does not have the technical, managerial and financial capability to ensure compliance with the requirements of this title or (ii) is in significant noncompliance with any requirement of the national primary drinking water regulations or variance." However, a waterworks owner may receive assistance if use of the funds will ensure compliance or if the waterworks owner agrees to undertake appropriate changes in operations (including ownership, management, accounting, rates, maintenance, consolidation, alternative water supply, or other procedures) to assure compliance. Significant noncompliance is equivalent to EPA Enforcement Targeting Tool (ETT) scores ≥ 11 .
2. The *Code of Virginia* requires that a waterworks owner obtain a **permit** from VDH before modifying or establishing a waterworks. VDH's permitting process includes a **waterworks business operation plan**, which addresses the waterworks owner's ability to supply safe drinking over the long term by identifying sufficient technical, managerial, financial and operational abilities.

B. Refinance Loans:

1. Local government owners of a publically-owned community waterworks are eligible. Private, state, federally, and tribally owned waterworks are not eligible.
2. If eligible and funds are available, the offer will be a 20-year (or less) loan with the interest set at the core term rate. VDH reserves the right to offer a 30 year if the waterworks meets disadvantaged criteria.
3. Any savings realized must be utilized to improve the waterworks infrastructure or financial capacity.
4. Debt to be refinanced must have been incurred for drinking water construction with an initiation date after July 1, 1993.
5. Other requirements may apply. See the refinance application.

C. Set-asides:

The following is a list of activities for which set-aside funds from the capitalization grant may be applied. Also, applicant eligibility requirements are specified, if any.

1. Administration of the DWSRF program and general technical assistance - 4% maximum of grant.
2. Technical assistance to small waterworks – 2% maximum of grant.
3. Assistance to state programs – 10% maximum of grant:
 - a. for the public water system supervision programs. - None specified
 - b. to provide technical assistance through source water protection programs – None specified.
 - c. to develop and implement a capacity development strategy under section 1420(c) – any waterworks owner is eligible except for the federal government
 - d. for the operator program of section 1419. - None specified.
4. Combination of the following - 15% maximum of grant:
 - a. loans to acquire land or a conservation easement to protect source water. – Community and nonprofit non-community waterworks owners are eligible.
 - b. loans for community water systems to implement voluntary source water protection measures. - Any community waterworks owner is eligible
 - c. loans to implement source water protection partnership program - Any community waterworks owner is eligible.
 - d. technical and financial assistance to a water system as part of the capacity development strategy in section 1420(c). - Any community or nonprofit non-community waterworks owner is eligible. Small waterworks are given priority.
 - e. make expenditures from grants available in FY 96 and 97 to delineate and assess source water protection areas as mentioned in section 1453. - None specified.
 - f. make expenditures to establish and implement wellhead protection programs. - None specified.

D. Attendance is required at our workshop/training session on program requirements for execution of awards for construction, planning grant, or other activities. An initial meeting to review the project

specifics is also part of the award process.

V. ELIGIBLE COSTS/ELIGIBLE PROJECTS

VDH may reduce loan eligibility, or reduce scope and size of a project to ensure the greatest benefit to as many waterworks as possible. VDH reserves the right to limit funding participation to the least cost of the feasible alternatives.

Regardless of the size of the community served, successful applicants must comply with the Virginia Public Procurement Act, our program requirements, and procurement procedural guidelines.

Loans from the construction fund may be utilized for upgrading, rehabilitation or reasonable expansion of a waterworks. SDWA (§1452(g)(3)(C)) excludes funding to expand any waterworks in anticipation of future (or speculative) population growth. However, the federal DWSRF Program guidance (February 28, 1997) states that if the primary purpose of the project is to solve a compliance or health problem, the entire project is eligible, including that portion to accommodate reasonable growth over the project's useful life. Funding may be utilized to consolidate waterworks or nonpublic drinking water systems if the water is contaminated or inadequate in quantity or if the system is not able to maintain compliance for financial or managerial reasons. The DWSRF construction program allows for associated planning and design costs if procurement meets program requirements. Expenses incurred on an approved project prior to execution of a loan agreement may be eligible if VDH requirements have been met. Expenses for Asset Management Plans, CIPs, WBOPs, and other studies may be eligible if meeting program requirements.

Funding of security measures and portable generators may be eligible expenses if the applicant meets VDH requirements. The purchases of land, easements, or rights-of-way are eligible costs if they are an integral part of the project. In addition, a waterworks owner may purchase land under the special set-aside provision of section 1452 for source water protection.

VDH will review all costs for eligibility. To be considered for reimbursement all cost items must be eligible under program guidelines, specific to the project, and necessary for the infrastructural improvement. Costs determined to be associated with any type of operation and maintenance activities are ineligible.

VI. TYPES OF FINANCIAL ASSISTANCE

As authorized in SDWA section 1452, the Virginia DWSRF Program will allow:

1. direct loans for project planning and construction,
2. the buying or refinancing of municipal debt obligations if the drinking water construction was started and such debt was incurred after July 1, 1993,
3. guaranteeing or purchasing insurance for a local obligation, and
4. being a source of revenue or security of state bonds if proceeds are deposited in the loan fund.

The Virginia DWSRF Program evaluates annually the need for establishing a leveraging program depending on infrastructural needs as evidenced in the response during the annual application process. Any leveraging program would be based on EPA's review and approval.

Direct loans will have below market rates with terms normally for 20 years but may extend to 30 years for a disadvantaged community.

VII. CONSTRUCTION AND REFINANCE LOANS

The VDH recommends that the scope of work for each construction project be consistent with the

waterworks asset management plan and be adequate to resolve the construction needs of the waterworks over the next 5 years.

Construction loan funds are disbursed on a cost reimbursement basis. All requests for disbursement of loan funds must be substantiated by invoices reviewed and approved by the owner. VDH will review and approve such requests prior to the actual disbursement of funds. All submittals for disbursement are to be made in accordance with the latest version of VDH's Procedural Guidelines.

VDH will have preliminary engineering conferences, review and approve preliminary engineering reports and any required business plans, review and approve project plan design, issue construction permits, have a field presence during construction as well as conduct a final project evaluation before issuance of a new operating permit, all under the Board of Health's Waterworks Regulations. VDH will oversee the **environmental review**. This effort, in conjunction with owner's and consultant's inspectors, will produce a quality product.

Typically refinance loans will be 20 year loans at the core term interest rate. VDH reserves the right to offer a 30 year if the waterworks meets disadvantaged criteria.

A. Terms

The loan must be fully amortized not later than twenty years (up to 30 years for a construction project serving a **disadvantaged waterworks**) after completion of the project. In addition the loan repayment period must not exceed the life of the assets being constructed or replaced.

B. Payments

The loan recipient will establish one or more dedicated sources of revenue (or in the case of a privately owned system demonstrate that there is adequate security) for repayment of the loan.

Prior to loan receipt, each applicant's financial credit history will be evaluated so VDH may make a final determination on offering a loan. The applicant's financial history will be assessed to determine their default risk and to determine the appropriate collateral to secure repayment of any loan to be offered. Specific provisions that can be required as a condition to making a loan are: establish and collect rents, rates, fees, and charges to produce revenue sufficient; levy and collect ad valorem taxes on all property; create and maintain special funds for the payment of principal and interest; create and maintain other special funds; conveyance of or the granting of liens on or security interests in real and personal property, together with all rights, title and interest therein; or take other actions as deemed necessary or desirable to secure payment of principal and interest.

VDH reserves the right to apply a \$6,000 loan closing fee on select projects that can be added to the principal of the loan. Part of the interest on a loan (from zero to 1.5%) may be designated by VDH as an administration fee and used by VDH for the administration of the program. Except for the origination and admin fee all other repayments funds will be returned to the Fund for use on future construction or refinance projects. The administration fee will not be applied to interest free loans.

Principal and interest payments on each loan will commence not later than one year after completion of the project. Payment terms and the beginning date of the payment of the loan may be negotiated depending on availability of revenue and the waterworks' financial situation.

C. Core Program Interest Rate

The repayment of loans is critical to sustaining the revolving loan fund in perpetuity. The Core Program

is a 20 year loan with the interest rate set at the time of loan closing. The core program rate is set at 1% below the market interest rate for municipal 20 year AA revenue bonds. Historically the core program rate has been between 1.4% and 3.0%.

D. Disadvantaged Waterworks Program

• General

In addition to the core program, the DWSRF Program allows the state to provide additional subsidization (partial or full forgiveness of principal) to the owner of a waterworks designated as disadvantaged. Twenty percent of the capitalization grant must be used to provide this subsidization in accordance with EPA's requirements. The State has the option to apply up to a maximum of 30 percent of the capitalization grant as additional subsidization. The State has elected to implement a disadvantaged program and will use forgiveness of loan principal to meet the additional subsidization requirement. Forgiveness of principal will decrease available loan funds. However, this will allow waterworks to undertake projects they could not otherwise construct and therefore protect the public health; and, when coupled with a waterworks business operation plan, it will reduce demand on the loan fund by insuring the long term well-being of the waterworks. VDH will couple principal forgiveness offers with requirements for building long term long financial sustainability.

VDH intends to build long-term financial sustainability at the waterworks by requiring the implementation of rate changes that meet or exceed the target rate criteria, as described below. No principal and interest payments are due on the portion of a loan designated as "Principal Forgiveness".

Disadvantaged waterworks qualifying for 30 year loans are those who meet the following criteria:

1. Have or will have monthly user rates that exceed the target rate(s). See section on Target User Rates.

Disadvantaged waterworks qualifying for principal forgiveness will meet the following criteria

1. Have or will have, after the project is completed, monthly user rates that exceed the target rate(s). See section on Target User Rates.
2. Apply for a construction loan to resolve a health or compliance problem,
3. Will serve less than 10,000 people on a retail connection basis,
4. Have a customer demographic where the median household income (MHI) is 80% or less than the state average MHI.
5. Be experiencing financial stress. One indication may be a negative cash flow.

Waterworks may receive disadvantaged designation if taking over another waterworks which would be determined to be disadvantaged under these criteria, or by providing drinking water service to existing unserved areas with public health challenges.

• Target User Rates

Target user rates are set as a one percent of Median Household Income (MHI). The MHI utilized for a project will be based upon the latest census figures or latest update for the city, town or county in which the waterworks is located.

$$\text{Target User Rate} = 1.00\% \text{ of the MHI}$$

Applicants may submit specific MHI comparisons for the waterworks' entire service area.

VDH will use the rate structure (in-town, if applicable) for residential customers and apply it to the average monthly residential water usage to derive the average monthly user rate for evaluation under the DWSRF Program. The average monthly residential water usage is to be based on residential water meter data.

Waterworks are expected to meet or exceed the target rate criteria at the time of project completion. VDH reserves the right to require an implementation schedule acceptable to VDH for those waterworks that may need additional time for implementation of significant rate increases.

• **Benefits**

Where waterworks/projects are designated as disadvantaged the following will be considered:

- a. interest rates between zero and three percent,
- b. a repayment term of up to 30 years,
- c. partial or full forgiveness of principal (PF/grant) at the beginning of the loan.

Following the process described under target user rate and blending one or more of these three considerations; a calculated monthly user rate should result that is more than the target and/or the current rate.

VDH reserves the right to extend a 30 year loan offer and/or principal forgiveness to those waterworks/projects that do not meet all of the above criteria. Additional requirements may apply.

E. **Small Construction Projects:**

VDH reserves the right to award 100% Principal Forgiveness to small projects (less than \$150,000 in total cost) due to loss of state funds for small construction project grants, to reduce program requirements and costs by avoiding additional costs associated with the loan program, and to expedite awards and disbursements in accordance with EPA requests. VDH reserves the right to limit 100% PF small construction projects to one per waterworks owner once every three years.

F. **Waterline Extensions to Serve Failing Private Wells:**

VDH will consider providing Principal Forgiveness (PF)/grant funding up to a maximum of \$12,500 per residence connected for the projects that qualify under disadvantaged criterion. All others may be eligible for low interest loans.

G. **Closings for Multiple Projects:** If an applicant has multiple successful projects, all closings may be scheduled on the same date to reduce Program costs.

H. **Design Build:** In January 2016 the DWSRF Program made revisions to accommodate Design Build and other alternative project delivery methods. If you are interested, please contact the DWSRF Director or Supervisor as early as possible to ensure you will meet our procurement requirements for the Design Build team.

I. **Regionalization:**

VDH reserves the right to require regionalization for small systems to improve financial capacity as a condition of the acceptance and receipt of funds.

J. Financial Capacity and Sustainability Promotion:

As a condition of funding VDH reserves the right to require the implementation of rate changes including but not limited to annual rate increases in an effort to build long-term financial sustainability at the waterworks. To build waterworks financial capacity VDH intends to offer reduced interest rates (up to 25 bps) for recipients that commit to compound annual rate increases of at least 2% a year for five years as long as any additional funds generated are for the use of the waterworks.

K. Lead Service Line (LSL) Replacement Program: In an effort to accelerate the removal of lead in drinking water the DWSRF Program has made revisions to the priority scoring and ranking criterion. DWSRF funding is available for the complete removal of the public and/or private portion of the LSLs. In conjunction with other available funds this program intends to provide up to \$5000 dollars as grant funds (of which up to \$500 may be eligible as an admin fee) for each service line replaced on the homeowners side of the meter. The LSL includes pipe entry into the structure (up to and including a shut off valve) but excludes the premise plumbing. Please see Appendix D for details.

L. Readiness to Proceed and Timely Use of Funds:

To promote readiness to proceed and timely use of funds VDH intends to offer reduced interest rates of up to 25 bps for recipients that can close loans within 12 months of the standard award date. The standard award date is the date that the majority of ODW award letters are mailed.

VIII. COMPREHENSIVE PRIORITY LIST

The Intended Use Plan (IUP) must contain (i) a comprehensive priority list of projects and set-aside activities that are eligible for assistance, and (ii) a list of eligible projects and set-aside activities to receive funding from the capitalization grant. These lists may be combined into a single list that designates those applicants and set-aside activities to receive funding. Loan applications are solicited annually and prioritized in accordance with rating criteria described below.

Application Review and Prioritization: VDH intends to conduct one round of reviews for all projects received or postmarked by 4PM on the date of the application deadline, which is typically **April 1** of every year. Applications should apply for all infrastructure projects they are considering over the next four or five year period. Although average project size is approximately \$1 million VDH is in a position to fund large capital improvement projects (upwards of \$10 million). Very large projects may need to be phased. The typical loan has an interest rate ranging from 1.5% to 2.5% with a 20 year term and 2.3% to 3.0% for a 30 year term. Project applications received after the deadline may be considered based on upon the availability of funds. Eligible applications may be retained in an application pool as future funding becomes available.

PER Requirement Revised: The requirement to have a Preliminary Engineering Report (PER) drafted and submitted with the construction application (or waived) was revised in January 2016. The submission of the PER may be made a condition of the award. VDH believes this will allow greater flexibility in the Program and may allow the funding of the PER as part of the construction award. A Preliminary Engineering Conference (PEC) is required. VDH expects the PEC to be scheduled **before February 15th**. Call the appropriate ODW Field Office to schedule your PEC as early as possible preferably before any project procurement.

Design Build Accommodations: In an effort to better serve our waterworks owners the DWSRF Program was revised in January 2016 to accommodate Design Build, Public/Private Partnerships, and other alternative project delivery methods.

Lead Service Line Rebate/Replacement Program:

In an effort to improve support of the replacement of lead service lines (LSLs) VDH made revisions to the

Program in January 2017. Please see Appendix D for details.

Changes in EPA grant conditions, guidance, or interpretation thereof may necessitate reevaluation of project eligibility and priority.

Emergency Projects:

As allowed by EPA VDH reserves the right to fund emergency drinking water projects outside of the priority list of projects. Emergency drinking water projects are defined as necessary water production or distribution projects requiring immediate action to correct an urgent condition that poses an imminent danger to public health and welfare. Some examples of emergencies that may impact waterworks and pose an imminent threat to public health are epidemics, conflagrations, significant storms, hurricanes, floods, tornados, earthquakes or other unusual incidents.

The VDH Commissioner determines what constitutes an imminent threat to public health and welfare under an Emergency Order. An emergency drinking water project will require an Emergency Order from the Commissioner in accordance with § 32.1-175 or an Emergency Declaration from the Governor's Office.

Additional criteria:

- A. The condition must arise from a natural accident outside of human control, act of God, or other unforeseen occurrence or unavoidable condition.
- B. The condition cannot arise as the result of waterworks deterioration, neglect, dilatory action, or the emergency could not have been prevented or substantially mitigated by exercise of reasonable care of the facilities by the owner.
- C. The condition requires immediate corrective action which cannot await completion of the standard application and award procedures.
- D. The condition can't be addressed in any other way that achieves public health protection (i.e. through issuance of a BWN, discontinuing use of a contaminated source, etc.).
- E. The work associated with correction of the condition is to be generally limited to critical repairs or necessary construction to restore the waterworks to its condition prior to the accident or incident.

Emergency projects are expected to meet all other program requirements (including but not limited to Davis Bacon prevailing wages, American Iron and Steel, other federal cross cutters, etc.) prior to funding or disbursement. As such any applicants for emergency funds should not expect funds to be available within eight months from the date of application due to program requirements.

IX. BY-PASS PROCEDURES

VDH reserves the right to add and fund a project or to by-pass any project of a higher priority and make loans to one of a lower priority based on one or more of the following:

- A. Health or compliance problems, resulting from either natural or manmade events, necessitate a project being added to the list or funded out of priority order;
- B. The project owner does not have the technical, managerial and financial capability to ensure compliance with the requirements of the SRF Program;
- C. Partial funding for the project has limited financial benefit to the community; but the next community in line for funding can fund most or all of their project with the available funds;

- D. The project owner not able to execute financing agreements or begin construction **within one year** of VDH’s award letter;
- E. Need to obligate funding to meet EPA/Program goals:
 - a. 15% goal to Small Communities (population less than 10,000),
 - b. 20% goal to Green Projects Reserve,
 - c. 20% minimum for Additional Subsidization,
 - d. Other equivalency requirements under the EPA grant;
- F. Detailed project evaluation uncovers information previously unknown or not considered; or level of the required documentation is insufficient to proceed with the decision process. An example is the required prescreening for technical, financial, and managerial capability of an owner may disclose information that would prevent offering a loan to an owner;
- G. A project has secured adequate funding elsewhere;
- H. The owner withdraws the project; project will be identified as “withdrawn”;
- I. The owner is not making sufficient progress on an existing project(s), planning grant(s), or other FCAP activity(ies);
- J. The owner has not closed out an existing project(s), planning grant(s), or other FCAP activity(ies);
- K. The owner is considered in default with regard to obligations under existing loans. This includes and is not limited to informational requirements to VRA; or federal or state debarment,
- L. The owner has initiated construction activities without complying with program requirements;
- M. The project scope, benefits, circumstances, or intent have been or will be changed causing the project to no longer serve its intended purpose; or any changes that would result in a reduced project score and priority ranking.

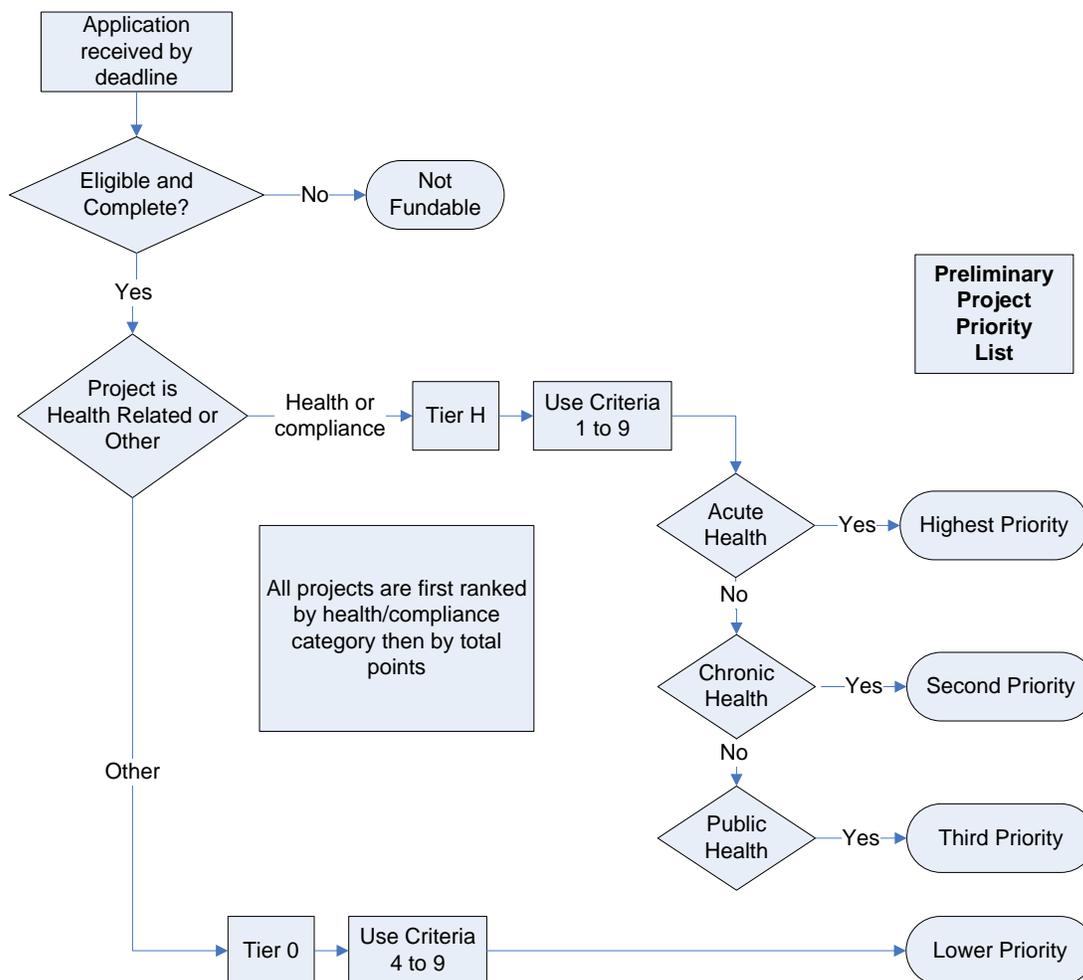
VDH reserves the right to reconsider by-passed projects for future allocations. The owner of a by-passed project is eligible to re-apply for future allocations based upon their submittal of another application and in competition with all applicants for that year. All waterworks whose project has been by-passed will receive assistance needed to prepare future applications, if requested and if program requirements can be met.

X. CRITERIA UTILIZED IN PRIORITIZING CONSTRUCTION PROJECTS

This priority system ensures that all eligible acute, chronic health/ SDWA compliance or public health projects are considered before any other eligible project. The priority of project funding is based upon a two-tiered system after considering eligibility.

Each application for project funding is reviewed and is identified as being based on either (1) an eligible acute, chronic health/ SDWA compliance or public health problem or (2) other problem. All eligible acute, chronic health/ SDWA compliance or public health projects are designated as Health (Tier Designation H). **Tier H projects are funded first and in descending order of acute, chronic health/SDWA compliance and then public health.** The remaining eligible projects are designated as Other (Tier Designation O). After all Tier H projects are funded, Tier O projects would be funded. Remaining eligible applications that are not funded may be retaining in an applicant pool and considered in subsequent funding years.

VDH reserves the right to take into consideration public health issues that have been experienced by the waterworks within the last 12 months prior to application submission even if conditions temporarily improve as might be experienced in the case of waterworks under new ownership or receivership.



After VDH designates a project to a particular tier, it is necessary to sort priority within that tier. Several criteria within three general groups are used to accomplish the sorting within tiers. VDH will assign points to all eligible projects (including potential refinancing efforts) in accordance with the following criteria.

GROUP I - Health and Compliance Criteria (direct violations or infrastructure needs that affect health issues.)

- (1) Acute Health Priority, SDWA Compliance 50 points max.
 - (2) Chronic Health Priority, SDWA Compliance 30 points max.
 - (3) Public Health Priority, Waterworks Regulations Compliance 20 points max.
- POINTS SUBTOTAL = 100 points**

GROUP II--Affordability Criteria

- (4) County/City/Town/Area Median Household Income (MHI) 30 points max.
- POINTS SUBTOTAL = 30 points**

GROUP III-- State Discretionary Criteria

(5) Regionalization	10 points max.
(6) Readiness to proceed	6 points max.
(7) Other funds	4 points max.
(8) Projected cost per connection	5 points max.
(9) Sustainability/Reliability/Green Project Reserve	15 points max.
	<u>POINTS SUBTOTAL = 40 points</u>
	GRAND TOTAL = 170 points

A. GROUP I - Health and Compliance Criteria

Acute Health Priority, SDWA Compliance (50 points maximum). *These are health concerns that affect an individual in the immediate short-term and are given the highest weight of any criteria.*

- Formal Enforcement Action/VDH Order, or Emergency Declaration (50 points)
- Surface Water Treatment Rule violation, i.e., inadequately treated surface water or groundwater under the direct influence of surface water (GUDI) (10 points)
- Persistent Total coliform rule (TCR) or Nitrate violations (10 points)
- Continuing Boil Water Notice (10 points)

Chronic Health Priority, SDWA Compliance (30 points maximum). *Chronic health problems that affect an individual over a lifetime.*

- Formal Enforcement Action/VDH Order (30 points)
- Persistent PMCL Violations for contaminants such as VOC, SOC, IOC, RAD, etc. (10 points)
- Lead and Copper Action Levels (10 points)
- Enforcement Targeting Tool (ETT) health based score ≥ 11 (10 points)

Public Health Priority, Waterworks Regulations Compliance (20 points maximum)

Improvements to infrastructure necessary to bring the waterworks into compliance with the Waterworks Regulations or to ensure the provision of safe drinking water such as:

- Ensuring that drinking water receives appropriate treatment to protect the public health. (10 points)
- Reduce water losses and increase accountability, including metering previously Unmetered systems. Leakage noted as percent ranges, choose only one range, leak rate must be documented (10 points)
- Preventing conditions favoring the entrance of contaminants into the distribution system. (5 points)
- Increasing storage capacity in the waterworks so it is adequate. (5 points)
- Increasing adequate pressure in waterworks. Requires documented NOV, a significant deficiency or a hydraulic model (5 points)
- Resolving conditions of inadequate quality and quantity of a water source. (5 points)
- Removing lead service lines. (5 points)

Other Considerations:

- Enforcement Targeting Tool (ETT) health based scores ≥ 5 and < 11 (5 points)
- Preventing or resolving aesthetic problems such as taste, odor, or discoloration of water (3 points)
- Inadequate individual home water supplies with supporting data/evidence. (5 points).
 To be designated as a priority water line extension in the Public Health category, $\geq 50\%$ of the potential residential connections in the proposed project area must be sampled for e-coli and/or have issues

documented (e.g. inadequate individual supplies, failing wells, documented contamination when compared to a Primary Maximum Contaminant Level, water hauling, etc.).

- For extensions to serve 50 or more individual connections: at least 25% of those sampled/investigated must be e-coli positive and/or have a documented issue.
- For extensions that serve less than 50 individual connections: at least 50% of those sampled/investigated must be e-coli positive and/or have a documented issue.

B. GROUP II--Affordability Criteria

Affordability-- Median Household Income (20 points maximum). *The census or latest update median household income (MHI) of the residences being served by the project is used in order to weigh assistance to those with fewer resources available per household. Project specific income surveys may be submitted for use; contact VDH for forms and guidance regarding survey by unbiased third party.*

<u>MHI</u>	
Under \$30,000	30 points
\$30,000 to \$37,000	20 points
\$37,001 to \$45,000	12 points
\$45,001 to \$54,000	6 points
\$54,001 to \$66,000	2 points
\$66,001 and above	0 points

Given the nature of the projects waterworks applying for the Lead Service Line (LSL) Replacement Rebate Program will be evaluated utilizing the current median property value of the properties being served in order to weigh assistance to those with fewer resources available per household.

<u>Median property value estimate:</u>	
Under \$90,000	8 points
\$90,000 to under \$170,000	6 points
\$170,000 to under \$240,000	4 points
\$240,000 to under \$300,000	2 points
\$300,000 to under \$350,000	1 point
\$350,000 and above	0 points

C. GROUP III-- State Discretionary Criteria

Regionalization (10 points max). *State law encourages regionalization; therefore, such efforts receive additional consideration.*

Consolidation of multiple non-complying waterworks	(10 points)
Consolidation of one non-complying waterworks	(8 points)
Consolidation of complying waterworks or interconnection	(4 points)
Service to areas with individual homes having documented quality/quantity problems	(2 points)

Readiness To Proceed (6 points maximum). *A Preliminary Engineering Conference must be held with the appropriate ODW Field Office prior to the application . Information documenting the PEC must be submitted with the application. To expedite funding awards and disbursements VDH is awarding points for projects that demonstrate a greater Readiness to Proceed which include the submission of a Preliminary Engineering Report (PER), letter report, or design memo.*

If new users are to be added by the project, more than 50% must have signed agreements at time of filing the application. 80% or more must sign agreements for the project to be feasible from a positive cash flow

prospective.

Points are awarded for user agreements in excess of 50%. The number of user agreements is divided by the total number of potential users in the project area. The percentage is compared to the range on the score sheet and the allotted points are added.

In addition an adequate water source or source agreement contract is a necessity

One (1) point can also be allotted for each of the following completed items.

- *Engineering procurement has been submitted and approved.*
- *Environmental Review is completed and accepted by VDH, USDA Rural Development, or DMME.*
- *A PER, letter report, or design memo has been submitted, approved, or waived*
- *P&S approved/Construction Permit has been issued.*
- *A bidability review has been completed and approved by the DWSRF Program.*
- *A letter documenting the ODW's decision not to require Plans & Specs for the project.*

Other Funds Available (4 points maximum). *Incentive points are assigned to encourage an applicant to have other funds in addition to the funds from the DWSRF program. The percentage is calculated by dividing the other funds by the total project cost.*

Less than 5%	0 point
5% to =<10%	1 point
10% to =<15%	2 points
15% to =<20%	3 points
Greater than 20%	4 points

Projected Cost per Connections Served (5 points maximum). *The cost per household is calculated by dividing the amount of the DWSRF construction funds from the DWSRF program by the actual number of households receiving the benefit.*

Less than \$500/household	5 points
\$500 to =<\$2500/household	3 points
\$2500 to =<\$5000/household	1 point
Greater than \$5000/household	0 point

Sustainability/Reliability/Green Project Reserve/Climate Readiness (15 points maximum). *Waterworks are encouraged to employ effective utility management practices and consider projects that increase waterworks efficiency, sustainability, reliability, and promote readiness. These practices and projects enable waterworks to acquire and/or maintain technical, managerial, and financial capacity necessary to ensure long-term sustainability and reliability in the provision of drinking water.*

- **Increase Power Reliability (5 points):** Includes the installation or purchase of emergency power infrastructure which may include secondary feeds, standby power, and/or emergency electrical connections. To promote waterworks reliability during natural disasters VDH encourages all applicants to consider including emergency power (where practical) as part of their applications.
- **Increase Water System Reliability (5 points):** Includes the installation of emergency interconnections, emergency wells, auxiliary water supplies, etc.
- **Measures to increase protection of critical drinking water assets/infrastructure (5 points):** Projects could include, but not limited to: installation of meters, protection against flooding/climate change of

critical drinking water assets, or protection of aquifers. Points will be based on the merits of the project proposal.

- Green Project Reserve (GPR): The applicant must provide a Business Case for the specific project in the application even if there are zero GPR dollars. This documentation will be used to evaluate the points for the preceding three scoring items. The business case should follow the example following this section. The amount of savings reported in the business case is divided into the total construction cost to obtain a percentage of the total construction cost. The percentage is used to determine if a project is considered “green”. If it is considered “green” then the green component of the capital cost is divided by the total capital cost. This percentage is used to determine the point allotment for each range. Refer to Appendix C – Green Project Reserve Sample Calculation for guidance on completing a GPR Business Case. These projects may include:
 - Projects to improve water and energy efficiency.
 - Projects to comply with other state or federally requirements or mandates.
 - Projects that protect or conserve water resources or reduce water consumption.
- Asset Management Plan (5 points): The applicant must provide documentation of a functional asset management program. Minimum requirements include but are not limited to:
 - Inventory of existing assets/infrastructure, (i.e., sources, treatment, storage, etc.)
 - Expected useful life of assets vs. remaining useful life
 - Documentation of planned, scheduled maintenance
 - Documentation of an asset replacement or Capital Improvement (for waterworks) reserve fund
- Source Water Protection Plan (up to 3 points):
 - Having an approved plan – (1 point) or committed to participate in the program.
 - If the plan is considered to be implemented (additional 2 points)
- Projects in the EVGMA only: To conserve water in the Eastern Virginia Groundwater Management Area (EVGMA) created pursuant to the EVGMA of 1992, VDH reserves the right to give precedence to water projects that do not involve withdrawal of groundwater from the coastal plain aquifer over those projects that do withdraw groundwater in the EVGMA. VDH will only apply this evaluation to any equally ranked projects when both are located in the EVGMA.

XI. PLANNING AND DESIGN AWARDS

The 1996 Amendments of the Safe Drinking Water Act (SDWA) encourages States to provide technical assistance to waterworks. In addition to other forms of technical assistance, VDH created an activity to annually provide planning and design funding awards, especially for small, financially challenged, community waterworks. Eligible projects may include preliminary engineering planning, design of plans and specifications, performance of source water quality and quantity studies, drilling test wells to determine source feasibility, or other similar technical assistance projects. Applicants interested in this program should review ODW’s *Planning and Design Funding Program* which is provided on our website as a separate document.

XII. 1452 (k) LOCAL ASSISTANCE AND OTHER STATE PROGRAMS (15%)

“A State may fund several other categories of activities to assist development and/or implementation of local drinking water protection initiatives (section 1452). A State may use up to 15% of the capitalization grant amount...with the stipulation that not more than 10% of the capitalization grant can be used for any one activity.” Applicants interested

in this program should review ODW's *Planning and Design Funding* Program which is provided on our website as a separate document.

APPENDIX A

Synopsis of Program Requirements

Introduction:

There are a number of Federal and State requirements which are applicable to projects funded through the Program. It is the intent of the Virginia Department of Health (VDH) to ensure compliance with all of these requirements by our Loan Recipients. **In order for this goal to be achieved, it is important that our Recipients fully understand these requirements and that they follow through in meeting these requirements in a timely manner.**

The Purpose of this synopsis is to provide a very brief summary of the program requirements as they relate to the Recipients. The Synopsis is not intended to explain all of the details of meeting these requirements, as that information is provided in the *Procedural Guidelines*. It is imperative that the Recipient read, understand and follow the procedures presented in the *Guidelines*. This document provides a review of the requirements for easy reference in one location. The guidance documents contained within the *Procedural Guidelines* are referenced as appropriate (as PG #s).

Financial (PG #'s 3, 4, 5, 6)

The financial requirements of the Program include:

1. Compliance with the *Virginia Public Procurement Act*. (Recipients must comply with all the requirements of this Act regardless of population size).
2. Compliance with *Office of Management and Budget Circular A-102*.
3. Compliance with the *Uniform Financial Report Manual*.
4. Compliance with the *Single Audit Act*.

An adequate recordkeeping/filing system is the only way to ensure that required records related to the above requirements are maintained and accessible. There is no specific recordkeeping/filing requirements regarding the manner in which files are kept. The *Procedural Guidelines* contains a summary of the type of information that will be reviewed during VDH monitoring visits, and a sample filing system.

Planning and Design

There are six (6) Program requirements related to project planning and design. It is important to note that all planning and design requirements must be satisfied prior to closing a loan through the Program. The requirements are as follows:

1. *Environmental Review (ER) (PG #7)* - This requirement is intended to ensure that projects funded through the Program are environmentally sound and is one of the major planning requirements. It involves a review of the environmental impacts of the project alternatives along with any preventive or mitigative measures which could be taken to minimize the adverse impacts. There are three types or levels of environmental review in the Program based on the projects potential for significant environmental impacts; ranging from a relatively simple Categorical Exclusion to the more complex Environmental Impact Statement. The review includes procedures for soliciting public participation into the process and final review and approval.

2. Permit Application - Notification of Intent (PG #8) - This form is submitted by waterworks owners to initiate the project evaluation process. The *Code of Virginia* Section 32.1-172B requires a person to apply to the Field Office of VDH prior to the establishment, construction or operation of a waterworks. Applications also may be completed by telephone and signed during the Preliminary Engineering Conference.
3. Preliminary Engineering Conference (PEC) (PG #8) - The PEC's provides for an exchange of information between all parties and is normally held at the Field Office of the VDH with the environmental engineering staff. The envisioned project will be discussed in its entirety. The applicant's engineer shall be prepared to set forth water supply problems and the proposed solution in such a manner as to support the conclusions and recommendations. Discussions regarding system problems and technical design standards and construction requirements and ongoing financial commitments will help determine if the project is feasible and, if so, the scope of work for the envisioned project.

The effort will enable the owner to consider many elements that will affect the long term economic viability necessary to ensure stability of the project. Preliminary thoughts for design exceptions should be formulated at this step.

PEC's are encouraged for all projects involving treatment processes or complex hydraulics. For routine waterline extensions, a telephone conference may suffice at the discretion of VDH.

4. Waterworks Business Operations Plan (WBOP) (PG #8) - The Program restricts assistance to a waterworks that lacks the technical, managerial or financial capability to maintain compliance with the SDWA and the *Waterworks Regulations* (see PG #1).

In addition, Section 32.1-172 of the *Code of Virginia* states that "an application for a permit shall include a comprehensive business plan detailing the technical, managerial, and financial commitments to be made by the owner in order to assure that the waterworks' performance requirements for providing the water supply will be met over the long term".

In addition the *Code* allows for waiving the comprehensive business plan portion if an applicant has demonstrated an acceptable history of compliance with the *Waterworks Regulations*.

The Program staff, with concurrence with the Field Director, will determine whether a WBOP or another form of certification of technical, managerial and financial capability is required of the applicant. If a WBOP is required of the applicant, the Program staff will provide a document outlining the requirements of such a plan. The field office staff will perform the evaluation.

5. Preliminary Engineering Report (PER) (PG #8) - A PER may be required or waived by the ODW Field Office. Information required in the PER is listed in 12 VAC 5-590-200C of the *Waterworks Regulations*. Reports submitted for approval shall be prepared by or under the supervision of a licensed professional engineer legally qualified to practice in Virginia. The field office environmental engineering staff will perform the technical evaluation of PERs.
6. Plans and Specifications (PG #8) - Plans and specifications based on the approved PER are required of all projects. Information required in the plans and specifications is listed in 12 VAC 5-590-200 D, E & F of the *Waterworks Regulations*. Plans and specifications submitted for approval shall be prepared by or under the supervision of a licensed professional engineer legally qualified to practice in Virginia. The Field Office environmental engineering staff will perform the technical evaluation

of plans and specifications. The Program staff will do a biddability review of the plans, specifications and addenda and review all change orders for compliance with the Program requirements.

Construction Documents

1. *Virginia Waterworks Regulations* - The design of the waterworks facilities must be in conformance with the *Virginia Waterworks Regulations*.
2. *Inclusion of the State Contracts Inserts* - The specifications for the project must include the Contract Inserts provided in the *Procedural Guidelines*. These inserts address the following requirements which must also be mentioned in the Information to Bidders section of the contract documents:
 - (a) *Compliance with Equal Employment Opportunity*
 - (b) *Certification on Non-Segregational Facilities*
 - (c) *Compliance with Minority and Women’s Business Enterprise Goals* (MBE/WBE)
 - (d) *Compliance with the Civil Rights Act of 1964*
 - (e) *Compliance with Age Discrimination Act of 1975, Rehabilitation Act of 1973, and the Prohibition against Sex Discrimination*
 - (f) *Utilization of Small Businesses in Rural Areas*

The Recipient must follow the Virginia Public Procurement Act in procuring the goods and services related to project construction. Once the Recipient has selected the contractor for the project, they must submit a bid package to the VDH for review. The bid package must contain evidence of bid advertisement, the bid tabulations, documentation regarding contractor selection, the bid bond, the bid proposal, and documentation verifying solicitation of MBE/WBE firms.

It is very important to note that the Recipient and Prime contractor must both demonstrate a “good faith effort” in the solicitation and utilization of Minority Business Enterprises / Women’s Business Enterprises (MBE/WBE) during the bid process. Efforts such as public notice, telephone or postal solicitations must be undertaken and evidence of these efforts must be provided in order to ensure VDH participation in the project. Information regarding the anticipated utilization of MBE/WBE firms must also be presented and must demonstrate “good faith effort”.

Through the course of project construction, the Recipient must monitor contractor solicitation and utilization of MBE/WBE businesses and services. The MBE/WBE Utilization Report Forms must also be submitted by the Recipient to the VDH on a quarterly basis. The VDH will periodically monitor the Recipient’s performance in regard to these requirements.

3. *Final Project Evaluation* - VDH will conduct a final project evaluation to determine whether all program requirements and loan conditions have been satisfied, and that construction of the project was completed in substantial accordance with approved plans, specifications, and change orders. The final evaluation will be conducted after notification by the Recipient that construction is complete and, if appropriate, will be conducted in conjunction with the Final Inspection referenced in the *Waterworks Regulations*. Disbursement of Fund proceeds is held to the 95% level until a Final Project Evaluation can be conducted.

Summary

The requirements associated with the Program are detailed in the Program Guidance. VDH staff are available to assist recipients during this process.

APPENDIX B

FEDERAL CROSS-CUTTING REQUIREMENTS¹

ENVIRONMENTAL AUTHORITIES:

Archeological and Historic Preservation Act of 1974, Pub. L. 86-523, as amended.

Clean Air Act, Pub. L. 84-159, as amended.

Coastal Barrier Resources Act, Pub. L. 97-348. and Coastal Zone Management Act, Pub. L. 92-583, as amended.

Endangered Species Act, Pub. L. 93-205, as amended.

Environmental Justice, Executive Order 12898.

Farmland Protection Policy Act, Pub. L. 97-98.

Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended.

Floodplain Management, Executive Order 11988, as amended by Executive Order 12148.

National Environmental Policy Act, Pub. L. 91-190.

National Historic Preservation Act of 1966, Pub. L. 89-665, as amended.

Protection of Wetlands, Executive Order 11990.

Safe Drinking Water Act, Pub. L. 93-523, as amended.

Wild and Scenic Rivers Act, Pub. L. 90-542, as amended.

ECONOMIC AND MISCELLANEOUS AUTHORITIES:

Audit Requirements under 2 CFR 200 Subpart F, (replaces OMB Circular A-133)

American Iron and Steel, see <https://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement>

Debarment and Suspension, Executive Order 12549.

Demonstration Cities and Metropolitan Development Act of 1966, Pub. L. 89-754, as amended, Exec. Order 12372.

Procurement Prohibitions under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans.

Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended.

SOCIAL LEGISLATION:

Davis-Bacon Act and Related Acts, see <https://www.dol.gov/whd/contracts/dbra.htm>

Age Discrimination Act of 1975, Pub. L. 94-135.

Anti-Lobbying Provisions (40 CFR Part 30) [applies only to capitalization grant recipients].

Equal Employment Opportunity, Executive Order 11246.

Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act).

Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590.

Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250).

The Drug-Free Workplace Act of 1988, Pub. L. 100-690 (applies only to the capitalization grant recipient).

Title IV of the Civil Rights Act of 1964, Pub. L. 88-352.

Women's and Minority Business Enterprise, Executive Orders 11625, 12138 and 12432.

¹This information is provided for guidance and may not include all federal legislation as of this printing.

APPENDIX C- SAMPLE SCENARIO FOR POTENTIAL GREEN PROJECT RESERVE APPLICATIONS

To qualify as Green Project Reserve (GPR), a waterworks must show that the proposed project has significant (not incidental) green benefits. The project must provide green infrastructure, promote water and/or power efficiency, or provide other innovative environmental benefits. To determine if your proposed project can be classified as a GPR project, the first step is to determine which project elements and their associated costs meet GPR criteria. After determining which project elements (and costs) are potentially GPR, a business case showing how the project element is green on both technical and financial grounds. When making a business case for GPR consideration, the supporting information should be as specific and detailed as possible.

Sample Scenario

The town of Anywhere, Virginia serves 100 residential customers, and has applied for \$100K in State Revolving Funds through the VDH-DWSRF. Their proposed project will replace 100% of the aging 6" water mains serving the town, and replace 50% of the water meters currently in use with touch-read meters.

Water loss through leakage is a significant problem for the town: water audits show 60% of average daily production cannot be reconciled. The town produces and treats 100,000 gpd, of which only 40,000 gallons reach customers. Pipe replacement accounts for \$90K of the total project cost. Replacement of the existing meters with touch-read meters accounts for \$10K of the total project costs. The key benefit will be labor savings for the town meter reader.

In this scenario the water line replacement element may qualify as GPR, because it promotes water efficiency, while the meter replacement element does not, because its primary purpose is to modernize the utility's management practices. The technical basis for the water line replacement is expected reduction in water loss due to leakage from 60% of daily production to no more than 10% loss. The financial basis for the line replacement is expected savings in water production costs (lowering the cost of treatment chemicals, improving the life expectancy of pumps, reducing expenses for electricity) and costs of spot repair and maintenance.

Below is a sample format for organizing your information. Please note that figures shown are for illustration purposes only. Under Financial Component document your systems expected cost savings in the same time unit throughout, where possible (as shown, except for pump life expectancy, cost savings are expressed on per month basis).

Applicant	Anytown Water Utility – Water Main and Meter Replacement Project - Project 299								
Contact Name and Phone	John Smith, Utilities Director (703) 123 4567								
Project Description and associated costs	1. Replace 100% of 6" water mains currently in service to 100 residential and business connections (\$90K) 2. Replace 50% of existing rotary water meters with touch-read meters. (\$10K)								
What project elements can be classified as potentially green?	Water line replacement, at a cost of \$90K.								
Technical Component	By replacing existing 6" water mains that were originally installed in 1930, we expect to reduce documented water loss through leakage by approximately 50%. The waterworks produces and treats an average of 100,000 gpd. Water meter readings show residential use of approximately 400 gpd per residential connection. The waterworks serves 100 households. <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Current daily production</td> <td style="text-align: right;">100,000 gpd</td> </tr> <tr> <td>Average daily usage</td> <td style="text-align: right;">- 40,000 gpd (400 gpd/ conn. X 100 conn.)</td> </tr> <tr> <td>Water loss goal after line replacement</td> <td style="text-align: right;"><u>- 10,000 gpd</u> or less</td> </tr> <tr> <td>Expected water <u>savings</u> after replacement</td> <td style="text-align: right;">= 50,000 gpd</td> </tr> </table> <p>It is expected that water use and efficiency will be significantly improved by replacing the existing, ageing pipe as described in the project application.</p>	Current daily production	100,000 gpd	Average daily usage	- 40,000 gpd (400 gpd/ conn. X 100 conn.)	Water loss goal after line replacement	<u>- 10,000 gpd</u> or less	Expected water <u>savings</u> after replacement	= 50,000 gpd
Current daily production	100,000 gpd								
Average daily usage	- 40,000 gpd (400 gpd/ conn. X 100 conn.)								
Water loss goal after line replacement	<u>- 10,000 gpd</u> or less								
Expected water <u>savings</u> after replacement	= 50,000 gpd								
Financial Component	1. 40% reduction in treatment chemical costs. Current average monthly costs = \$350. Savings after project = \$140 per month. 2. 30% reduction in Average monthly electric costs. Current average monthly costs = \$1000. Savings after project = \$300 per month. 3. Maintenance crew currently spends 20 hours/month on spot repairs at labor cost of \$800/month. Savings after project = \$800 per month. 4. Improved life expectancy on submersible well pump by reducing frequency of cycling. Replacement cost = \$4000 every four years = \$84/month. The waterworks expects to <u>double</u> pump life expectancy after pipe replacement. Savings after project = \$42 per month.								
GPR Dollars Claimed	\$15,400/annually 17.1% (as % of VDH funded project)								
Signature/Date	John Smith, April 10, 2017								

APPENDIX D
Lead Service Line Replacement Rebate Program
Through the VDH

The Safe Drinking Water Act (SDWA) requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur with an adequate margin of safety. These non-enforceable health goals, based solely on possible health risks, are called maximum contaminant level goals (MCLGs). EPA has set the maximum contaminant level goal for lead in drinking water at zero because lead is a toxic metal that can be harmful to human health even at low exposure levels. Lead is persistent, and it can bio-accumulate in the body over time. In support of the MCLG the American Waterworks Association (AWWA) encourages communities to develop a lead reduction strategy that includes identifying and removing all lead service lines over time.

Beginning in 2017 the VDH/ODW implemented a lead service line replacement rebate program under the Water Supply Assistance Grant (WSAG) Program and/or the State Revolving Loan Fund (DWSRF) Program to support the goal of removing all lead service lines. This program was implemented to help defray the service line replacement costs as a cost sharing program to home/property owners and assist the waterworks in reducing potential risks related to lead exposure in drinking water to its customers.

The presence of a lead service line connecting a residence/home to the main in the street can lead to elevated lead levels in tap water, especially if that water sits stagnant for an extended period. While the service line from the meter to the residence is the responsibility of the property owner costs to replace this line may be as high as \$10,000 for each connection with average costs of \$3500 to \$3900. For many property-owners this is cost prohibitive and as a result service lines are not replaced. In Virginia there are thousands of lead service lines that would be eligible for replacement. For waterworks the challenge has been finding property-owners who wish to cooperate in service line replacements as partial line replacements are not recommended. The lead lines tend to be in older communities constructed prior to 1980s. The American Waterworks Associations has proposed a best practices goal for waterworks of replacing 10% of lead service lines each year in its *Get the Lead Out Program*.

These program guidelines and requirements have been developed by a stakeholders group, reviewed by the Waterworks Advisory Committee, underwent a 60 day public comment period, followed by a public hearing.

Eligibility:

1. Community waterworks or non-profit non-transient waterworks owners who have confirmed or suspected lead service lines (includes utility and/or customer portion of the service line). All lead pipes between the house (including entry point) and the main (including pig tails) would be eligible. The LSL includes pipe entry into the structure (up to and including a shut off valve) but excludes the premise plumbing. Galvanized service lines that are or were connected to lead service lines may be considered for funding. VDH reserves the right to fund pre-award costs.
2. Waterworks owners may be eligible to receive grant rebates of the lesser of the actual cost of replacement or \$5,000 per service line replaced for the private portion of the LSL replaced. Up to \$500 of the \$5,000 may be used for administrative/investigative work required to facilitate the LSL replacement. The LSL replacement must be a complete replacement if partial replacement has not taken place yet. Partial replacements are eligible if the action completes the replacement of the lead service line.

3. Waterworks owners must commit to providing the private/customers portion of the rebate directly to property owners or authorized third party within 30 days of receipt. VDH reserves the right to limit the \$500 per LSL funding to waterworks to a maximum of \$25,000.
4. In an effort to maximize access to the program VDH reserves the right to limit grant/principal forgiveness funding to a maximum of \$500,000 per applicant per funding year or 12 month award period. Agreements will be for a 12 month period with one 12 month renewal.
5. Residences, apartments, daycares, private schools, and other facilities where sensitive populations may be present are eligible.

Process and Timeline:

1. 3 Stakeholders group meetings via poly-com 6 locations statewide
2. Draft program guidelines were prepared in October 2016
3. A 60 day public notice and public comment period was held in January 2017
4. WSAG program guidelines were finalized March 1, 2017
5. First applications were received starting April 1, 2017
6. Awards were made June 2017
7. Disbursements were eligible after June 30, 2017
8. Confirmation of the following must be submitted with the disbursement request:
 - Completion of the lead service replacement (e.g. plumbing invoice to property owner or to the waterworks showing the address of the work and total cost of work)
 - Waterworks confirmation completion (e.g. copy of waterworks or final building inspectors report)
 - Waterworks payment confirmation of past rebates provided to the home owners or authorized third party to avoid any duplicate payments. Property addresses must be shown.
 - A running tally of all residences/addresses that had service line replacements done under this program to avoid any duplicate payments. Property addresses must be shown.
9. Waterworks are eligible to submit requests quarterly.