WORKSHOP EXERCISE INSTRUCTIONS: STATE DRINKING WATER STATE REVOLVING FUND (DWSRF) REPRESENTATIVE

Note on Eligibility Criteria

The DWSRF eligibility criteria were simplified for the purpose of this exercise and are not complete.

Congratulations! You have been selected to be the **State DWSRF Representative** for this exercise.

Your Role:

The Drinking Water State Revolving Fund (DWSRF) program provides below-market loans to assist communities with a wide range of water quality infrastructure projects. The DWSRF program may also take "set-asides" to provide non-infrastructure assistance, including training and technical assistance. You will identify priority PWSs for investment of DWSRF funds. Your DWSRF program receives requests for funding throughout the year. You establish the project priority list for the following annual cycle. You will also track the progress of DWSRF projects and periodically report to EPA.

Your job title may be DWSRF manager, DWSRF administrator, or supervising engineer. Your day-to-day job may include some of the following duties: meeting potential loan applicants, conducting site visits of current projects, processing and ranking loan applications, or reviewing asset management plans and loan applications. You generally have good insight into drinking water systems in your state and state drinking water priorities (e.g., lead reduction, water system resiliency, etc.).

Your Packet Includes:

1. *Acronym List.*
2. *System Details for State DWSRF Representative.*
3. *Public Water System Inventory Data.*
4. *Systems Map.*
5. *A worksheet to organize information.*
6. *Ranking for State Assistance to Public Water Systems.*

Your packet also contains a list of *Background Resources* for future reference; you will not need this document to complete the exercise.

Overview:

You have been given information about the PWSs in your state, some of which need state assistance (e.g., Technical assistance [TA] or DWSRF loan assistance) in the upcoming year. You will work with your team to rank the PWSs in order of need for state assistance.

For purposes of this exercise, the current year is 2019, and the month is October.

This exercise is organized into three phases:

- **Phase 1: PWS Review** – Read through the materials, assess the needs of each PWS, and independently rank the PWSs in order of need for state assistance (i.e., TA or financial assistance). **You are the only team member that has an accurate list of the PWSs' infrastructure project needs.** Note: If your team has more than one person playing this role, you can work together.
- **Phase 2: Team Discussion** – Discuss your rankings with the rest of the team members to develop an overall team ranking.
- **Phase 3: Report Out** – Report out your rankings to the whole group.

There is no single correct answer! The goals of this exercise are to share as a team how the PWSs were evaluated based on the available information and identify the steps the state will take to assist these PWSs. Be sure to collaborate and share ideas (during Phase 2).

EXERCISE STEPS

Phase 1: PWS Review (30 Minutes)

Step 1.1: Review the Systems to Determine Assistance Needs. Use the *Public Water System Inventory Data, System Details for State DWSRF Representative,* and the *DWSRF: Quick Facts* to review the PWS project details. You may use the provided *Worksheet for State DWSRF Representative* to record your information on eligibility and priority points.

Step 1.2: Determine if a PWS is Eligible for Assistance. To be eligible, a PWS must be one of the following:

- Publicly- or privately-owned CWS.
- Not-for-profit NCWS.

In addition, for a PWS to be eligible for DWSRF funding, it must not be in violation of any drinking water standards **OR** the project and related system improvements must ensure that the PWS will no longer be in violation. *Hint*: The State Enforcement Representative may have additional information you will need to determine if the projects on your *System Details for State DWSRF Representative* are eligible.

Step 1.3: Determine if the Purpose of the Proposed Project Is Eligible. Some examples of *ineligible* project purposes include:

- Infrastructure primarily meant to meet future population growth and/or development.
- Infrastructure primarily meant to provide for fire suppression.

Step 1.4: Determine if Individual Aspects of Each Project Are Eligible. Some examples of *ineligible* project components include:

- Operations or maintenance costs, including salaries, staff time, and monitoring.
- Dams and raw water reservoirs.

Step 1.5: Indicate If PWS is Eligible for DWSRF Support. Indicate on the worksheet if the PWS needs are eligible for DWSRF support. Also indicate if you are recommending TA or financial assistance for the PWS. Include any notes that will help you explain your recommendations during Phase 2.

Considerations

Each state's DWSRF project priority ranking system assigns points in a way that gives the greatest priority to projects that:

- Address the most serious risk to human health.
- Ensure compliance with the SDWA, including (in order of priority):
  - Returning a PWS to compliance.
  - Helping a PWS maintain compliance.
  - Ensuring a PWS will be able to comply with future drinking water rules.
- Assist PWSs with the greatest affordability challenges.
- Are ready to proceed in a timely manner.

ACRONYM LIST

AO	Administrative Order
AL	Action Level
CWS	Community Water System
DWSRF	Drinking Water State Revolving Fund
ERP	Enforcement Response Policy
ETT	Enforcement Targeting Tool
MCL	Maximum Contaminant Level
M/R	Monitoring and Reporting
NCWS	Non-Community Water System
PWS	Public Water System
PVC	Polyvinyl Chloride
RTCR	Revised Total Coliform Rule
SDWA	Safe Drinking Water Act
TA	Technical Assistance
TT	Treatment Technique
USDA	U.S. Department of Agriculture

Step 1.6: Assign DWSRF Priority Points According to Your State's DWSRF Priority Formula. The point totals for each PWS based on their violations and affordability is included in the System Details table. You should use the table below to assign additional priority points. You may need to make assumptions and judgment calls; some of these assumptions and judgments could be revised based on your collaboration with your team members in Phase 2 of this exercise. Indicate on the worksheet the total number of priority points.

Priority Point Category	Condition	Priority Points
Violations	1-2 M/R or TT Violations; or 1-2 Lead and Copper Level AL Exceedances	5
	More than 2 M/R or TT Violations, or AL Exceedances	10
	1-2 MCL Violations	20
	More than 2 MCL Violations	30
	ETT Score Greater than or Equal to 11	10
Source	Inadequate Source (Severe)	30
	Inadequate Source (Moderate)	15
Storage	Inadequate Storage	24
Pressure	Inadequate Pressure	30
Filtration	Surface Water or GWUDI with No Filtration	30
	Ground Water with No Filtration	20
Treatment	Inadequate Treatment	12
Distribution System	Distribution System Deficiencies	12
Well Construct	Improper Well Construction	12
Affordability	Affordability (High Need)	30
	Affordability (Moderate Need)	15
	Affordability (Low Need)	0
Small System	Population Served Less Than 101	30
	Population Served Less Than 501	12
Consolidation	Consolidation of Entire System	25
	Consolidation of Some Services/Management	15
Bonus Priority Points		
Security	Security Upgrades	5
Asset Management	Asset Management Plan	15
Water Conservation	Water Conservation Program	10
Resiliency Project	Project Includes Elements Allowing System to Continue Operating Under Adverse Natural Weather Events	5

NOTES:
Each state's priority ranking point system has a theoretical ceiling for the total number of priority ranking points. For this exercise, the maximum number of points is 265, excluding bonus priority points.

Affordability: A greater number of priority points are given to PWSs with households that have a high average annual water bill (greater than 2%) relative to their median household income.

Step 1.7: Flag Any PWSs that Are Not Ready to Proceed. A project that is not ready to proceed can remain on the ranked list but can be passed over for the next project that is ready to proceed. These PWSs may be candidates for TA (potentially funded by the DWSRF set-asides) to ensure that they are ready to proceed in the next DWSRF funding cycle.

Step 1.8: Rank the PWSs Based on Assigned Priority Points. Using the information gathered on the worksheet, rank the PWSs on the provided *Ranking for State Assistance to Public Water Systems* form. A ranking of 1 should be assigned to the PWS with the most priority points, and a ranking of 7 should be assigned to the PWS with the least priority points. It's okay to make assumptions when ranking the systems, just make sure that they can be explained during Phase 2 of this exercise. If new information is brought up during discussions with your team members, you can amend the rankings accordingly.

On your *Ranking for State Assistance to Public Water Systems* form, you should list:

1. Your priority ranking for each PWS;
2. The reasons for the ranking; and,
3. Your recommended actions to aid the PWSs. Note that the aid for these PWSs can be TA (i.e., through set-asides), financial assistance (i.e., through a DWSRF loan), or both.

Phase 2: Team Discussion Phase (30 Minutes)

Step 2.1: Present your Findings to the State Drinking Water Administrator. Once each team member is done establishing his/her ranking, the State Drinking Water Administrator will lead the team discussion. When it is your turn, present to the rest of the team and the State Drinking Water Administrator: 1) your ranking, 2) the reasons for the ranking (i.e., how you defined PWS needs and why certain needs were greater than others), and 3) your recommended actions (TA and/or loan, or none) for each PWS. Do not be surprised if the rankings differ from role to role, since different information is available to each team member.

The team will help the State Drinking Water Administrator make a final decision about: 1) the final priority ranking for state assistance, 2) the reasons for that ranking, and 3) the recommended actions to aid the PWSs.

BONUS! Program Challenges and Improvements: If your team has time, discuss suggested improvements that could be made to this state drinking water program.

Phase 3: Report Out (30 Minutes)

Step 3.1: Report Team Results to the Entire Group. Once your team has finalized the ranking and list of PWSs that will receive assistance, the State Drinking Water Administrator will present the information to the entire group of teams, or a subset of the entire group (e.g., 1-2 other teams). The Administrator will report: 1) your team's final ranking for DWSRF projects and TA, 2) the reasons for those rankings, and 3) the recommended actions to aid the PWSs.

Drinking Water State Revolving Fund: Quick Facts

The 1996 SDWA Amendments established the DWSRF to make funds available to PWSs to **finance infrastructure improvements**. The DWSRF also emphasizes providing funds to **small and disadvantaged communities** and to programs that encourage **pollution prevention** as a tool for ensuring safe drinking water.

The DWSRF offers a range of **financial tools to assist PWSs**, including: design and construction loans; regionalization or consolidation of water supplies; creation of new CWSs; restructuring PWSs; purchase/refinance debt obligations; and insurance or guarantee for local debt. State drinking water programs can issue **DWSRF loans** to PWSs with interest rates between 0 percent and the market rate, and with repayment terms of up to 30 years (40 years for disadvantaged communities) or design life of the infrastructure, whichever is less.

The DWSRF program requires that state drinking water programs develop a public health **priority ranking point system** for funding PWS infrastructure projects. States may have different priority point systems.

The state drinking water programs must consider both the **eligibility of the PWS** to receive assistance, as well as the **eligibility of the proposed project** (project's purpose) and **project components** (construction and investment).

Drinking Water Regulations (Applicable to All CWSs Serving Less than 10,000 Customers)	
Consumer Confidence Rule (CCR)	
Lead and Copper Rule (LCR)	
Phase II/V Rules for Inorganic Chemicals (IOCs), including Arsenic; Synthetic Organic Chemicals (SOCs); and Volatile Organic Compounds (VOCs)	
Public Notification (PN) Rule	
Radionuclides Rule	
Revised Total Coliform Rule (RTCR)	
Based on a CWS's use of disinfection, they may also be subject to: ▪ Stage 1 & 2 Disinfectants and Disinfection Byproducts Rule (DBPR)	
Based on a CWS's source water type, they may also be subject to: ▪ Ground Water Rule (GWR) ▪ Surface Water Treatment Rule (SWTR)	▪ Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) ▪ Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)

System Details for State DWSRF Representative

PWSID	PWS Name	Need for DWSRF Loan	Project Cost	Priority Points		Important Notes
PWSID-A	ADDISON COMMUNITY WATER SYSTEM	The PWS's ground-level water tank needs replacing because the pressure on the east side of town is not adequate for firefighting.	$450,000	Violations: 5 Source:	Affordability: 0	The PWS has a modest reserve fund.
PWSID-B	BRICK CITY WATER SYSTEM	The PWS is unmetered and is unable to bill customers according to usage. The PWS would like to install water meters throughout the distribution system.	$700,000	Violations: 45	Affordability: 0	This project is part of a large Water Conservation Program being undertaken by the PWS.
PWSID-C	CRANSTON AGRICULTURAL ASSOCIATION	The PWS is experiencing ongoing contamination issues with their primary ground water well. A replacement well is needed to ensure that residents are supplied with a reliable and safe source of drinking water. Furthermore, the PWS plans to install a high-efficiency well pump in the new well.	$80,000	Violations: 30	Affordability: 30	This community has been identified as "disadvantaged."

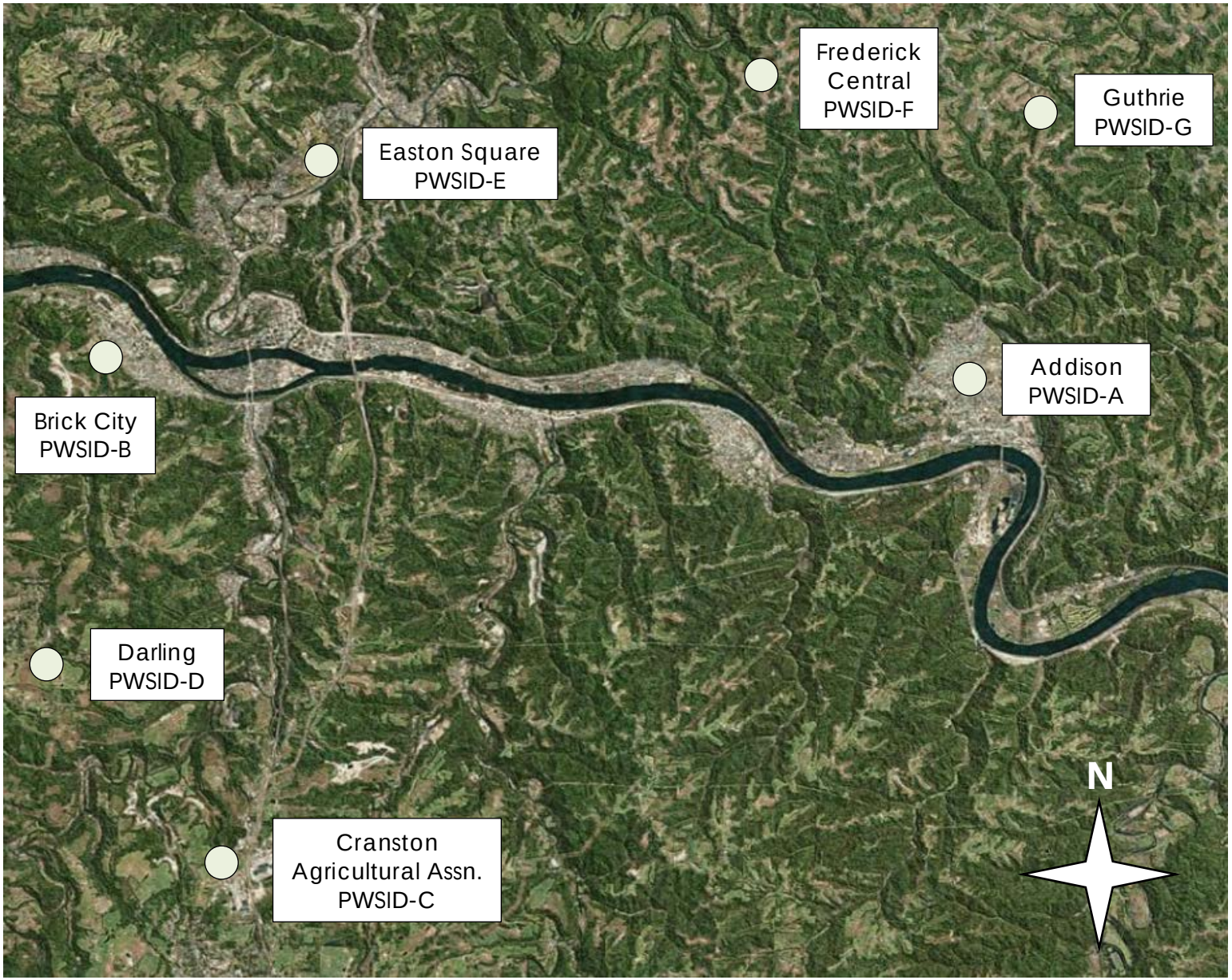
PWSID	PWS Name	Need for DWSRF Loan	Project Cost	Priority Points		Important Notes
PWSID-D	DARLING MOBILE HOME PARK	The PWS suffered a major water main break in September 2019 and had an RTCR *E. coli* MCL violation. The Level 2 Assessment uncovered piping issues. The PWS also experiences pressure problems during periods of high demand. The PWS needs to replace 60 percent of its distribution system that is currently cast-iron piping with PVC piping.	$450,000	Violations: 40	Affordability: 0	
PWSID-E	EASTON SQUARE WATER DISTRICT	The PWS does not have a fence around its elevated water tank. Recently, teenagers were found climbing on the water tank. To increase security and safety, the PWS needs to install fencing and an alarm.	$30,000	Violations: 50	Affordability: 15	The PWS is funding a replacement chlorinator for two ground water wells with capital reserves. The PWS would like to initiate the fencing and chlorinator projects simultaneously but has not completed all of the necessary engineering and planning steps.
PWSID-F	FREDERICK CENTRAL WATER WORKS	The PWS needs to resize the elevated water tank to provide sufficient capacity to serve the needs of a planned subdivision in the next 5 years.	$1,200,000	Violations: 10	Affordability: 0	The system does not have a reserve fund.

PWSID	PWS Name	Need for DWSRF Loan	Project Cost	Priority Points		Important Notes
PWSID-G	GUTHRIE WATER SYSTEM	The PWS has a long-term arsenic compliance problem. In order to provide safe drinking water, the PWS has tried to enter into a water system partnership with a nearby town with the hopes of interconnecting with the town's water supply. The PWS has not yet established an interconnection. Since they are unable to connect, they need to install treatment.	$327,000	Violations: 40	Affordability: 0	This PWS is also seeking funding for this project from the USDA. There may be an opportunity to coordinate funding with USDA.

PUBLIC WATER SYSTEM INVENTORY DATA

PWSID	PWS Name	Population Served	PWS Type	Source Water	Major Infrastructure
PWSID-A	ADDISON COMMUNITY WATER SYSTEM	6,000	CWS	Surface Water	▪ Conventional Filtration Plant ▪ 1 Ground-level Water Tank ▪ 62 Miles of Pipe ▪ 100% Metered
PWSID-B	BRICK CITY WATER SYSTEM	2,772	CWS	Surface Water	▪ Conventional Filtration Plant ▪ 1 Elevated Water Tank ▪ 40 Miles of Pipe ▪ 0% Metered
PWSID-C	CRANSTON AGRICULTURAL ASSOCIATION	2,100	CWS	Ground Water	▪ Disinfection (Membrane technology) ▪ 1 Elevated Water Tank ▪ 23 Miles of Pipe ▪ 0% Metered
PWSID-D	DARLING MOBILE HOME PARK	294	CWS	Ground Water	▪ Disinfection (Hypochlorination) ▪ 1 Ground-level Water Tank ▪ 20 Miles of Pipe ▪ 100% Metered
PWSID-E	EASTON SQUARE WATER DISTRICT	3,000	CWS	Ground Water	▪ Disinfection (Hypochlorination) ▪ 1 Elevated Water Tank ▪ 30 Miles of Pipe ▪ 90% Metered
PWSID-F	FREDERICK CENTRAL WATER WORKS	394	CWS	Ground Water	▪ Disinfection (Hypochlorination) ▪ 1 Elevated Water Tank ▪ 17 Miles of Pipe ▪ 100% Metered
PWSID-G	GUTHRIE WATER SYSTEM	326	CWS	Ground Water	▪ Disinfection (Hypochlorination) ▪ 1 Ground-level Water Tank ▪ 10 Miles of Pipe ▪ 98% Metered

MAP OF AREA WATER SYSTEMS



1 inch = 8 miles

WORKSHEET FOR STATE DWSRF REPRESENTATIVE

Criterion	PWSID-A	PWSID-B	PWSID-C	PWSID-D	PWSID-E	PWSID-F	PWSID-G	
Priority Points								
Eligible								
Ready to Proceed								
Notes								
Technical Assistance (TA)								
Financial Assistance (DWSRF Infrastructure projects)								
Rank								

RANKING FOR STATE ASSISTANCE TO PUBLIC WATER SYSTEMS

Remember to review the projects for each PWS and based on DWSRF criteria, determine the eligibility of the PWS, the project's purpose, and the individual aspects of each project; assign DWSRF priority points, and rank the PWSs based on their score; flag any PWSs or projects that are not ready to proceed with DWSRF funding, but could use TA.

Team Name: _____ **Role**: **DWSRF Representative**

PWS Name / PWSID	Rank	Reason for Ranking / Recommended Actions to Aid PWSs Note that the aid for these systems can be TA, financial assistance (DWSRF infrastructure projects), or both.
Addison Community Water System PWSID-A		
Brick City Water System PWSID-B		
Cranston Agricultural Association PWSID-C		
Darling Mobile Home Park PWSID-D		

PWS Name / PWSID	Rank	Reason for Ranking / Recommended Actions to Aid PWSs Note that the aid for these systems can be TA, financial assistance (DWSRF infrastructure projects), or both.
Easton Square Water District PWSID-E		
Frederick Central Water Works PWSID-F		
Guthrie Water System PWSID-G		

BACKGROUND RESOURCES

Overall Resources:

- EPA's Drinking Water Standards Quick Reference Guides: https://www.epa.gov/dwreginfo/drinking-water-rule-quick-reference-guides
- EPA's Compliance Guidance under the Safe Drinking Water Act by Regulation: https://www.epa.gov/dwreginfo/drinking-water-regulatory-information

FOR FUTURE REFERENCE

You can refer to these resources, as needed, after the exercise.

State Drinking Water Administration:

- The Association of State Drinking Water Administrators Website: http://www.asdwa.org/
- Information About State Drinking Water Systems Programs: https://www.epa.gov/ground-water-and-drinking-water

Capacity Development:

- EPA's Small Public Water Systems and Capacity Development Website: https://www.epa.gov/dwcapacity
- EPA's Guidance on Capacity Development: https://www.epa.gov/dwcapacity/information-states-about-building-capacity-drinking-water-systems
- EPA's Tools/Resources for States and TA Providers: https://www.epa.gov/dwcapacity/technical-managerial-and-financial-tmf-capacity-resources-small-drinking-water-systems

Operator Certification:

- EPA's Operator Certification Website: https://www.epa.gov/dwcapacity
- EPA's Guidance on Operator Certification: https://www.epa.gov/dwcapacity/information-states-about-certifying-operators-drinking-water-systems
- The Association of Boards of Certification: http://www.abccert.org/

EPA's Drinking Water ERP and the ETT:

- EPA's Drinking Water Enforcement Policy: https://www.epa.gov/sites/production/files/documents/drinking_water_erp_2009.pdf
- EPA's ETT Scores Tracker and ETT Report (Note: you must be a registered user): https://echo.epa.gov/
- SDWA Dashboard: https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=National
- SDWIS Federal Reports Search: https://ofmpub.epa.gov/apex/sfdw/f?p=108:200:::NO:::

Drinking Water State Revolving Fund:

- EPA's Drinking Water State Revolving Fund Website: https://www.epa.gov/drinkingwatersrf

Drinking Water Trainings:

- Drinking Water Trainings Website: https://www.epa.gov/dwreginfo/drinking-water-trainings
- Small Systems Monthly Webinar Series: https://www.epa.gov/water-research/small-systems-monthly-webinar-series

Additional Partners:

- American Water Works Association: http://www.awwa.org/
- National Rural Water Association: http://www.nrwa.org/
- Rural Community Assistance Partnership (RCAP): http://www.rcap.org/
- Environmental Finance Center Network (EFCN): http://efcnetwork.org/