WORKSHOP EXERCISE INSTRUCTIONS: STATE ENFORCEMENT REPRESENTATIVE

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

Your Role:

Your job title may be Engineer, Enforcement Specialist, Environmental Field Specialist, Licensing Coordinator, or Licensing Operator. Your day-to-day job may include some of the following duties: working with water supplies having compliance issues, conducting sanitary surveys, and issuing violations. You generally have good insight as to the operations of individual water supplies that you work with and may have inside knowledge regarding their violations.

Overview:

You have been given information about the PWSs in your state, some of which are in need of state assistance (i.e., Technical Assistance [TA] or Drinking Water State Revolving Fund [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.

Your Packet Includes:

1. *Acronym List.*
2. *System Details for State Enforcement 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.

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 and /or financial assistance). **You are the only team member that has an accurate list of the PWSs' violations.** 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 memb*1*ers 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 all the violations. Use the *Public Water System Inventory Data, System Details for State Enforcement Representative,* and the *Enforcement: Quick Facts* to review the types of violations (e.g., MCL, M/R, etc.), whether there are still unaddressed violations, and the PWS's ETT score. You can use the provided *Worksheet for State Enforcement Representative* to record information on the PWSs including severity score, the violation status, the duration of the violations, if the violations posed an acute threat to public health, and the PWS's ETT score. You can also use the worksheet to 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.

Step 1.2: Rank the PWSs in Order of Need for State Assistance. Using the information gathered on the worksheet rank the PWSs. On your *Ranking for State Assistance to Public Water Systems* form, you should list:

1. Your ranking for each PWS based on the PWSs that require assistance (not necessarily the PWSs most in need of enforcement action);
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. You may also want to note if additional PWSs should be referred for formal enforcement proceedings.

A ranking of 1 should be assigned to the PWS with the greatest need for assistance, and a ranking of 7 should be assigned to the PWS with the least need for assistance. 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.

Considerations

- **Current ETT Score:** Review the ETT score for each PWS and identify which PWSs have a score equal to or greater than 11 points. These PWSs are considered a high enforcement priority according to EPA's Drinking Water ERP. Also think about which PWSs may still be noncompliant even where the ETT score might not reflect a high enforcement priority.
- **Type of Violation:** Consider which violations represent acute threats to public health versus which violations could be more representative of inadequate knowledge and/or experience (i.e., low TMF capacity).

ACRONYM LIST

AO	Administrative Order
CCR	Consumer Confidence Report
CWS	Community Water System
DBP	Disinfection Byproduct
DBPR	Disinfectants and Disinfection Byproducts Rule
DWSRF	Drinking Water State Revolving Fund
ERP	Enforcement Response Policy
ETT	Enforcement Targeting Tool
GWR	Ground Water Rule
IOC	Inorganic Contaminants
LCR	Lead and Copper Rule
M/R	Monitoring and Reporting
MCL	Maximum Contaminant Level
NOAV	Notice of Alleged Violations
NPDWR	National Primary Drinking Water Rule
PN	Public Notification
PWS	Public Water System
RTC	Return to Compliance
RTCR	Revised Total Coliform Rule
TA	Technical Assistance
TMF	Technical, Managerial, and Financial
TT	Treatment Technique

Phase 2: Team Discussion (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 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.

Enforcement: Quick Facts

EPA adopted a Drinking Water ERP to focus on PWSs with health-based violations, a history of violations, or violations of multiple rules. One of the goals of the ERP is to focus resources on **violations that have the greatest impact on public health** and to ensure that EPA, states, and PWSs take action to **resolve** them.

The ERP uses the **ETT** to identify PWSs that pose the **greatest public health risk** and **prioritize them for enforcement** response. The ETT uses a formula to calculate a PWS's ETT score. The score is based on the **severity** and **duration** of unaddressed violations that have occurred within the past 5 years. Note that violations are considered "addressed" when the PWS either returns to compliance OR when formal enforcement is commenced (e.g., Notice of Violation, Administrative Penalty Order, etc.). As such, it is possible for a PWS to have an ETT score of 0 and still be noncompliant if there is a pending formal enforcement action against the PWS for the unaddressed violations. ETT reports are prepared quarterly.

The table below shows how the ETT is calculated, where *S* represents the violation severity factor and *n* represents the duration since the oldest unaddressed violation. A PWS with an ETT score greater than or equal to 11 points is considered a priority for enforcement response under the ERP.

Severity + Duration = ETT Score $\sum(S1 + S2 + S3 + \ldots) + n$	
Severity (*S*)	
Type of Violation	***ETT Points***
Acute health-based	10
Non-acute health-based Total Coliform repeat monitoring Nitrate M/R	5
All others not listed above	1
Grouping: Violations under the same rule with the same compliance period begin and end dates and violation code will get grouped together.	
Duration (*n*)	
For each year the oldest violation is ongoing (see type of violations above)	1*
**Score based on calendar year, with the current calendar year receiving 0 points. Up to 5 points can be assigned for duration, as the formula reviews the past 5 years.* *ETT Points are only given to unaddressed violations. "Unaddressed violation" means that the PWS has not returned to compliance or a formal enforcement action (e.g., Notice of Violation, AO, etc.) has not been commenced against the PWS. Note that a PWS may have a low ETT score and still be noncompliant if there is a pending formal enforcement action against the PWS for an unaddressed violation.*	

Drinking Water Regulations
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 Enforcement Representative

The status column in the following tables details whether a violation has been "Resolved" (i.e., the system has RTC), "Addressed" which means a formal enforcement action (e.g., AO) has been filed against the PWS and there may still be unresolved or unaddressed violations, or "Unaddressed" which means that the PWS has not RTC or a formal enforcement action has not been commenced against the PWS. Note that the ETT score is "0" for systems with a pending enforcement action.

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

PWSID	PWSID-A			
PWS Name	ADDISON COMMUNITY WATER SYSTEM			
PWS Type	CWS			
Violation	Violation Name	Compliance Period	Severity Score by Violation Type	Status
	IOC Monitoring M/R	1/1/2018-3/31/2018	1	Resolved
	CCR Failure to Report	7/1/2018-6/30/2019	1	Resolved
Duration from Oldest Unaddressed Violation (years)*	0			
ETT Score	0			
Notes	N/A			

PWSID	PWSID-B			
PWS Name	BRICK CITY WATER SYSTEM			
PWS Type	CWS			
Violation	Name	Compliance Period	Severity Score by Violation Type	Status
	DBPR MCL Average (x3)	1/1/2019-3/31/2019	5	Unaddressed
		4/1/2019-6/30/2019	5	Unaddressed
		7/1/2019-9/30/2019	5	Unaddressed
	PN for NPDWR (DBPR MCL x3)	3/26/2019	1	Unaddressed
		6/19/2019	1	Unaddressed
		9/18/2019	1	Unaddressed
Duration from Oldest Unaddressed Violation (years)*	0			
ETT Score	18			
Notes	Except for the recent DBPR MCL violations, the PWS has no other health-based violations. NOAV sent concerning DBPR and PN violations. System is implementing operational changes to the treatment plant.			

PWSID	PWSID-C			
PWS Name	CRANSTON AGRICULTURAL ASSOCIATION			
PWS Type	CWS			
Violation	Violation Name	Compliance Period	Severity Score by Violation Type	Status
	RTCR *E. coli* MCL (x2)	2/1/2019-2/28/2019	10	Addressed (AO filed)
		3/1/2019-3/31/2019	10	
	RTCR TT	5/1/2019-6/1/2019	5	
	GWR Source Monitoring M/R	2/10/2019-2/11/2019	1	
	DBPR Stage 2 M/R (x10)	1/1/2014-12/31/2014	1	
		1/1/2014-12/31/2014	1	
		1/1/2015-12/31/2015	1	
		1/1/2015-12/31/2015	1	
		1/1/2016-12/31/2016	1	
		1/1/2016-12/31/2016	1	
		1/1/2017-12/31/2017	1	
		1/1/2017-12/31/2017	1	
		1/1/2018-12/31/2018	1	
		1/1/2018-12/31/2018	1	
	LCR Follow-up and Routine Tap M/R	7/1/2018-12/31/2018	1	
	CCR Inadequate	7/1/2014-6/30/2015	1	
	CCR Failure to Report (x2)	7/1/2014-6/30/2015	1	
		7/1/2015-6/30/2016	1	
Duration from Oldest Unaddressed Violation (years)*	0			
ETT Score	0			
Notes	While the state commenced formal enforcement proceedings for these violations by filing an AO, they remain ongoing and unresolved. The AO is pending. The PWS continues to experience contamination issues.			

PWSID	PWSID-D			
PWS Name	DARLING MOBILE HOME PARK			
PWS Type	CWS			
Violation	**Violation Name**	**Compliance Period**	**Severity Score by Violation Type**	**Status**
	Nitrates MCL	4/1/2019-6/30/2019	10	Unaddressed
	RTCR *E. coli* MCL	9/1/2019-9/30/2019	10	Unaddressed
	DBPR Stage 2 M/R (x2)	1/1/2014-12/31/2014	1	Unaddressed
		1/1/2018-12/31/2018	1	Unaddressed
	PN for NPDWR (RTCR *E. coli* MCL)	9/5/2019	1	Unaddressed
Duration from Oldest Unaddressed Violation (years)*	5			
ETT Score	28			
Notes	N/A			

PWSID	PWSID-E			
PWS Name	EASTON SQUARE WATER DISTRICT			
PWS Type	CWS			
Violation	**Violation Name**	**Compliance Period**	**Severity Score by Violation Type**	**Status**
	RTCR *E. coli* MCL (x2)	8/1/2019-8/31/2019	10	Unaddressed
		9/1/2019-9/30/2019	10	Unaddressed
	GWR Source Monitoring M/R (x2)	7/1/2018-7/31/2018	1	Unaddressed
		9/1/2019-9/30/2019	1	Unaddressed
	PN for NPDWR (RTCR *E. coli* MCL)	9/12/2019	1	Unaddressed
Duration from Oldest Unaddressed Violation (years)*	1			
ETT Score	24			
Notes	An informal NOAV was sent concerning RTCR and PN violations. The system failed to let its customers know for 3 days about the *E. coli* MCL violation. In response, system has stated that the Level 2 Assessment performed by the Drinking Water Program found the chlorinator to be faulty. The system has stated that it has replaced the chlorinator.			

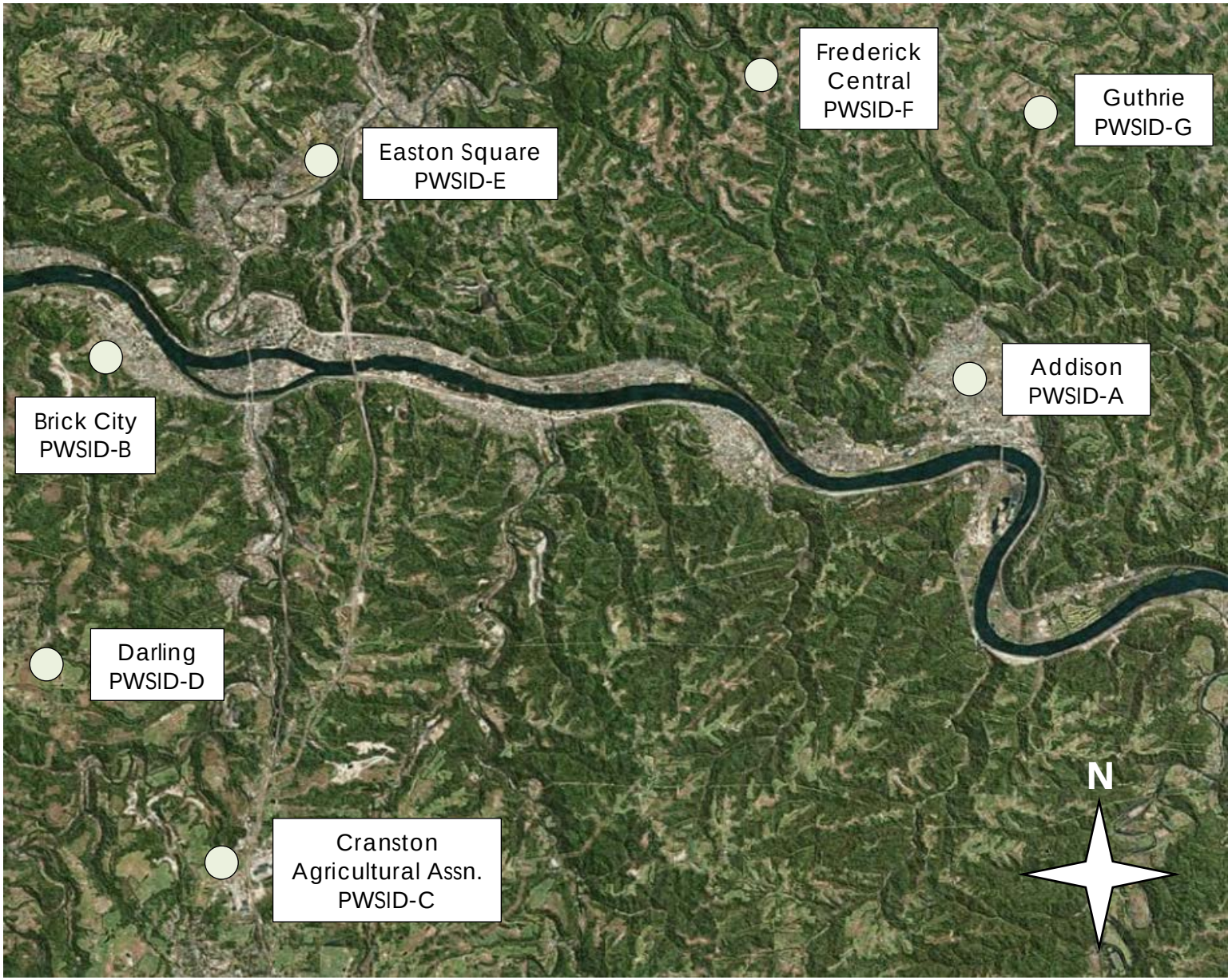
PWSID	PWSID-F			
PWS Name	FREDERICK CENTRAL WATER WORKS			
PWS Type	CWS			
Violation	Violation Name	Compliance Period	Severity Score by Violation Type	Status
	DBPR Stage 2 M/R (x2)	1/1/2016-12/31/2016	1	Unaddressed
		1/1/2016-12/31/2016	1	Unaddressed
	LCR Routine Tap Sampling M/R (x2)	7/1/2015-12/31/2015	1	Unaddressed
		1/1/2016-6/30/2016	1	Unaddressed
	CCR Failure to Report	7/1/2017-6/30/2018	1	Unaddressed
Duration from Oldest Unaddressed Violation (years)*	4			
ETT Score	9			
Notes	N/A			

PWSID PWS Name	PWSID-G GUTHRIE WATER SYSTEM			
PWS Type	CWS			
Violation	Violation Name	Compliance Period	Severity Score by Violation Type	Status
	Arsenic MCL (x14)	1/1/2015-12/31/2015	4 quarters x 5	Addressed (AO filed)
		1/1/2016-12/31/2016	4 quarters x 5	
		1/1/2017-3/31/2017	5	
		4/1/2017-6/30/2017	5	
		7/1/2017-9/30/2017	5	
		10/1/2017-12/31/2017	5	
		1/1/2018-3/31/2018	5	
		4/1/2018-6/30/2018	5	
	Arsenic M/R (x14)	1/1/2015-12/31/2015	4 quarters x 1	
		1/1/2016-12/31/2016	4 quarters x 1	
		1/1/2017-3/31/2017	1	
		4/1/2017-6/30/2017	1	
		7/1/2017-9/30/2017	1	
		10/1/2017-12/31/2017	1	
		1/1/2018-3/31/2018	1	
		4/1/2018-6/30/2018	1	
Duration from Oldest Unaddressed Violation (years)*	0			
ETT Score	0			
Notes	Long-standing arsenic violations that the system has tried to solve with an interconnection agreement with a neighboring system. Currently providing water through an alternative source. Formal enforcement commenced with filing of AO. Violations remain unresolved. AO pending.			

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 ENFORCEMENT REPRESENTATIVE

Criterion and Rank	PWSID-A	PWSID-B	PWSID-C	PWSID-D	PWSID-E	PWSID-F	PWSID-G	
Severity								
Status								
Duration								
Violations: Acute Threats to Public Health?								
ETT								
Remember to carefully review the violations, including violation types; review the ETT score for each PWS and identify which PWSs have 11 or more points since these PWSs are considered a high enforcement priority according to EPA's Drinking Water ERP; determine if there are PWSs that are consistently noncompliant even if the ETT score does not reflect a high enforcement priority; and consider violations that represent acute threats to public health versus violations that could be indicative of inadequate knowledge and/or experience (i.e., low TMF capacity).								
Notes								
Technical Assistance (TA)								
Financial Assistance (DWSRF infrastructure projects)								
Rank								

RANKING FOR STATE ASSISTANCE TO PUBLIC WATER SYSTEMS

Remember to carefully review the violations, including violation types; review the ETT score for each PWS and identify which PWSs have 11 or more points since these PWSs are considered a high enforcement priority according to EPA's Drinking Water ERP; determine if there are PWSs that are consistently noncompliant even if the ETT score does not reflect a high enforcement priority; and consider violations that represent acute threats to public health versus violations that could be indicative of inadequate knowledge and/or experience (i.e., low TMF capacity).

Team Name:_____ **Role**: **State Enforcement 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/