



Managing and Leveraging Data with the Drinking Water State Revolving Fund

States and communities may use the Drinking Water State Revolving Fund (DWSRF) loan fund and set-asides to support data management activities.

BACKGROUND

Effective data management is critical to state drinking water programs and public water systems for the protection of public health. These efforts provide states and water systems with the technical tools needed to map, collect, analyze, and report data more efficiently and effectively.

DWSRF ASSISTANCE

The Drinking Water State Revolving Fund (DWSRF) can provide financial assistance to publicly-owned and privately-owned community water systems, as well as non-profit non-community water systems, for drinking water infrastructure projects. Projects must either facilitate the system's compliance with national primary drinking water regulations or significantly further the health protection objectives of the Safe Drinking Water Act.

Each of the 50 states and Puerto Rico operates its own DWSRF program. They receive annual capitalization grants from the EPA, which in turn

provide low-interest loans and other types of assistance to water systems. Repayments of DWSRF loans begin one year after project completion, with loan terms up to 30 years for most communities, or up to 40 years for disadvantaged communities.

Additionally, states may use a portion of their capitalization grant from the EPA as "set-asides" to help communities build the technical, managerial, and financial capacities of their systems. With an emphasis on small systems, these funds help ensure sustainable infrastructure and public health investments.

DATA MANAGEMENT ACTIVITIES

The DWSRF loan fund and set-asides may be used to support state programs and water systems with data management. Many states use set-asides to conduct a broad range of data management activities. Some states contract out these activities to third parties, some utilize in-house staff, and others utilize EPA contracts to implement these tasks.

States most commonly utilize the Administrative (i.e., 4 percent) and State Program Management (i.e., 10 percent) set-asides for data management activities. States may also use the Local Assistance and Other State Programs (i.e., 15 percent) set-aside if the activity is part of the state's Capacity Development Strategy. More information on the set-asides can be found on the DWSRF website (www.epa.gov/dwsrf).

Safe Drinking Water Information System (SDWIS)

Set-aside funding can be used for an array of activities related to migrating, maintaining, and updating the state's Safe Drinking Water Information System (SDWIS) data system, Drinking Water State-Federal-Tribal Information Exchange System (DW-SFTIES), and/or Compliance Monitoring Data Portal (CMDP). These activities include:

- Transitioning and implementing support for SDWIS, DW-SFTIES, and CMDP;
- Updating or replacing interfacing applications for exchange of data with SDWIS, DW-SFTIES, and CMDP;
- Providing in-kind services through the withholding of set-asides funds to utilize EPA's DWPD IT Systems Support Services contract for SDWIS, DW-SFTIES, and CMDP implementation support.

EPA's SDWIS Resource Page:

<https://usepa.servicenow.com/sdwisprogram>

EPA's CMDP Resource Page:

<https://www.epa.gov/ground-water-and-drinking-water/compliance-monitoring-data-portal>

EPA's Asset Management Resource Page:

<https://www.epa.gov/dwcapacity/asset-management-resources-states-and-small-drinking-water-systems>

Leveraging Data with Cash Flow Management

Using the DWSRF Administrative set-aside, many states have successfully built financial modeling tools that accurately predict the revolving fund's cash availability over time. Cash flow management involves modeling inflows and outflows of the DWSRF program's various financial assets (e.g., federal capitalization grants and interest earnings). This informs sound financial decisions for the program and empowers state DWSRF managers

to maximize the availability of resources for communities to protect public health.

Asset Management

Asset management is a framework widely adopted by the water sector to pursue and achieve sustainable infrastructure. The DWSRF loan fund can be used by water systems to develop and update asset management programs. The set-asides can also be used by the state for asset management-related activities, including training, technical assistance, and program development.

Hydraulic Modeling

Hydraulic modeling is a particularly useful subsection of data management, which can assist with water system planning and provide predictive insight towards a water system's vulnerability. The DWSRF loan fund or set-asides can be used to fund activities such as GIS mapping development and hydraulic model development, calibration, and analysis.

Equipment & Technology

The DWSRF loan fund may be used by water systems to purchase equipment and upgrade technologies, like creating and installing a supervisory control and data acquisition (SCADA) system. Set-asides may be used for developing a benchmark database for collection and analysis of laboratory data from water systems.

Training

States may use set-asides to fund water system operator training. The State Program Management set-aside can be used to develop operator certification databases and software to track operators' certification status. The set-asides may be used for the support of state program staff's attendance at conferences, such as the Data Managers Users Conference, and for outreach and training of state program staff, including training on the Drinking Water Infrastructure Needs Survey and Assessment (DWINSA).

APPLY FOR FUNDING

Water systems receive DWSRF assistance directly from state agencies. Each state has its own application procedure. Contact information for each state is posted at <https://www.epa.gov/dwsrf/state-dwsrf-website-and-contacts>.



For more information, visit: epa.gov/dwsrf



DWSRF Case Studies: Data Management

How states and communities are using the Drinking Water State Revolving Fund (DWSRF) loan fund and set-asides to support data management.

WISCONSIN'S DRINKING WATER DATABASE

The Wisconsin Department of Natural Resources (DNR) utilized the State Program Management (i.e., 10%) set-aside to hire a third-party contractor to improve their Drinking Water System (DWS). The DWS is a public database containing information about Wisconsin's public water systems. The update addresses several topics, including:

- Water system inventory;
- Operator certification information;
- Consumer Confidence Reports; and
- Violation tracking, standardized violation letters, and public notice forms

Much of the DWS information is accessible via the internet to the general public, water system operators, and health officials to learn about the quality of Wisconsin's drinking water.

NEBRASKA'S LOAN TRACKING SOFTWARE

The Nebraska Department of Environmental Quality (NDEQ) used DWSRF set-aside funds to purchase and implement a loan and grant tracking system (LGTS). The LGTS is a comprehensive software application designed specifically for Nebraska's State Revolving Fund (SRF) managers and staff to track and manage all aspects of their SRF programs from project loan application to final repayment. The system also tracks all capital contributions, set-aside spending, and bond issuance and repayment. NDEQ found that LGTS reduced the occurrence of human error, which in turn increases time savings and efficiencies.



CAPACITY DEVELOPMENT GRANTS IN MAINE

The Maine Drinking Water Program uses the Local Assistance and Other State Programs (i.e., 15 percent) set-aside to fund Capacity Development Grants, which are available to public water systems (PWSs) in amounts up to \$15,000 per water system. PWSs use these grants to seek professional services in developing documents that work to enhance water system capacity, including system hydraulic modeling studies, asset management plans, and geographic information system (GIS) infrastructure mapping. Maine’s Capacity Development Grants help ensure that water systems develop documentation required to operate and maintain their system.

MASSACHUSETTS’ MANAGEMENT DATABASE

The Massachusetts Department of Environmental Protection utilized the State Program Management (i.e., 10 percent) set-aside to develop an in-house SRF Management database system. This database manages all SRF assistance agreements from project evaluation and rating to project close out. This includes capitalization grant tracking, change orders and inspections, accounting and disbursements, and various reporting functions for the state and the EPA. The database increased accountability, accuracy, and reporting efficiency, as well as staff productivity.

5.75	56	8.25	3.25	4.8	3	6.05	10.25	14.38
9	3	10	25.6	12.59	17.98	15.26	129.85	74.42
7.02	18.44	20.77	5.86	3.96	4.6	1	0	11.2
0	3	1.5	4	0.37	0	0.5	11	6.5
3.11	0	0.5	0	1.21	0	0	0	11.5
3.13	2.7	53.32	2.36	0.3	1.21	0	22.06	2.24
3.81	9964.9	9964.76	1106.9	13945.79	14851.18	17625.9	19138.99	20234.06
9.96	149.99	211.18	54.91	453.65	229.93	59.97	139.96	299.93
Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2.65	13359.77	14016.76	1094.89	12901.21	12625.01	13686.73	213.05	12941.58
5.57	925.61	1232.46	1046.6	1152.52	1210.19	2180.86	2100	1938.81
1.89	2990.29	3408.59	445.21	3400	2956.12	3779.39	325.32	3003.2
2.52	340.83	445.02	491.75	442.9	443.92	603	774.39	696.84
4.23	8953.85	8323.28	328.76	5744.81	4654.11	6468.39	3983.6	6088.4
92.9	1675.65	1859.25	78.12	1914.77	1830.85	2268.69	165.45	2480.94
1.67	911.7	860.27	33.35	979.59	847.94	1067.62	1163.01	1107.32
7.45	482.46	561	5.83	515.79	558.06	645.75	549	589.68
5.55	419.47	390.96	39.22	403.78	402.73	329.75	367.56	313.65
59.8	57.72	80.6	4.7	87.88	35.36	74	85.28	56.68
4.08	1.24	0.99	17.86	1.88	0.37	1.3	0.71	0.71
3.75	1	0.75	0.75	3.70	2.5	0	2.5	2.5
1.74	196.66	313.82	14	172.88	153.71	710.8	794.05	738.56
3.24	173.81	308.22	22.03	191.47	207.7	0.19	0	121.48
0.2	0.2	0	14.44	0	20.7	0.19	0	7.47
2.35	30.8	16.55	23.4	30.25	28.35	45.7	28.85	28.85
33.3	20.33	15.4	15.92	29.29	18.99	44.92	88.48	88.48
1.98	7	1.9	1.26	0.62	1.72	35.5	238.59	205.46

NEEDS SURVEY TRAINING IN OKLAHOMA

The Oklahoma Department of Environmental Quality (ODEQ) used the Administration and Technical Assistance (i.e., 4 percent) set-aside withheld from the state’s DWSRF capitalization grant to train its staff on how to accurately complete the Drinking Water Infrastructure Needs Survey and Assessment (DWINSA). The survey data is collected by the EPA and states and is used to calculate how DWSRF funds are allotted. The training obtained through EPA’s contractor assisted staff and ensured that the surveys were performed effectively and correctly.

FLORIDA’S DATA MANAGEMENT FOR SOURCE WATER PROTECTION

As part of Florida’s source water protection (SWP) program, the state utilized the State Program Management (i.e., 10 percent) set-aside to conduct several data management-related activities. Florida undertook modeling for a source water assessment for two surface water intakes. The state also using the funding to update the Florida Aquifer Vulnerability Assessment models by adding new and improved input data to GIS layers. Furthermore, Florida developed and populated a database for the Delineated Areas Program to track permitting and construction of new drinking water wells in areas of known ground water contamination.

APPLY FOR FUNDING

Water systems receive DWSRF assistance directly from state agencies. Each state has its own application procedure. Contact information for each state is posted at <https://www.epa.gov/drinkingwatersrf/state-dwsrf-website-and-contacts>

EPA’s SDWIS Resource Page:

<https://usepa.servicenowservices.com/sdwisprogram>

EPA’s Asset Management Resource Page:

<https://www.epa.gov/dwcapacity/asset-management-resources-states-and-small-drinking-water-systems>

Uses of DWSRF Set-Asides:

<https://www.epa.gov/dwcapacity/use-drinking-water-state-revolving-fund-dwsrf-set-asides>

DWSRF Eligibility Handbook:

<https://www.epa.gov/dwsrf/dwsrf-eligibilities>



For more information, visit: epa.gov/dwsrf