



A New Era for the Drinking Water State Revolving Funds:

Identifying Ways to
Better Assist
Disadvantaged
Communities



Association of State
Drinking Water Administrators

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Table of Contents

Executive Summary	1
Introduction	3
Background	4
Bipartisan Infrastructure Law	8
Comparison to EPA’s June 2022 report: “DWSRF Disadvantaged Community Definitions: A Reference for State”	9
ASDWA Case Studies for States that Evaluated and Modified their DAC Definitions or Affordability Criteria	13
Drivers for states to change their definitions or affordability criteria	13
Insights from DWSRF Case Studies	14
Looking ahead: Will states make additional changes in the future?	16
Conclusions	17
Appendix: Ten State DAC Definition Case Studies	18

Glossary

BIL	Bipartisan Infrastructure Law
DAC	Disadvantaged Community
DWINSA	Drinking Water Infrastructure Needs Survey and Assessment
DWSRF	Drinking Water State Revolving Fund
IUP	Intended Use Plan
PPL	Project Priority List
PWS	Public Water System
SDWA	Safe Drinking Water Act

Executive Summary

The 1996 amendments to the [Safe Drinking Water Act \(SDWA\)](#) (42 U.S.C. §300j-12) established the Drinking Water State Revolving Fund (DWSRF) programⁱ. This program provides water systems and states with financial assistance (low-interest loans, grants, principal forgiveness, and negative interest rate loans) to help meet the health protection objectives under SDWA. The DWSRF programs at each state have a long and successful history of providing financial assistance to small and disadvantaged water systems and their communities. Since 1997, the DWSRF program has provided 17,300 assistance agreements nationwide, and 34% of this funding has gone to disadvantaged communities. In total, the DWSRF has provided \$48.5 billion to communities of all types. EPA's 2021 DWSRF Annual Report estimates that the below-market DWSRF interest rates have resulted in approximately \$11.6B in savings to local community ratepayers over the life of the loan.

With the passage of the [Bipartisan Infrastructure Law](#) (BIL), also known as the Infrastructure Investment and Jobs Act (P.L. 117-58), state DWSRF programs across the country are receiving significant increases in federal funding for drinking water infrastructureⁱⁱⁱ. BIL has specific requirements for state programs distributing these funds, including a 49% subsidy requirement in the form of grants, principal forgiveness, or negative interest rate loans for communities deemed disadvantaged. The SDWA leaves defining what constitutes a “disadvantaged community” (DAC) up to the state DWSRF programs. In response to the release of BIL, EPA issued a memorandum: [Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions](#) on March 8, 2022^{iv}. Among other things, the memo spelled out the Agency's expectations for states to evaluate and revise, as needed, their DWSRF DAC definitions.

ASDWA saw the value in collecting and disseminating knowledge between the states regarding their work to evaluate and revise their DAC definitions. ASDWA hosted two discussions for states to give them an opportunity to share information and brainstorm how to meet EPA's expectations as well as how to best identify the communities most in need. This white paper is the culmination of those discussions and includes an analysis of the changes made by states to their DAC definitions after the passage of BIL. It also includes 10 case studies of DWSRF programs that modified either their DAC definitions or their affordability criteria to better meet the needs of their communities.

These case studies highlight the uniqueness and complexity of DWSRF programs throughout the country. Although they identified similarities and themes throughout the work of the states, it became apparent that each state had specific issues they were trying to address. These state-specific issues required unique solutions. However, there were parallels in the processes the states used to develop their DAC definitions and affordability criteria. This report collates these findings and provides recommendations for states and others who are tackling similar work. The states included in this report highlighted that public outreach and participation were essential, and multiple states emphasized the need for sound data and staff with expertise in data sciences. Similarly, states noted the need to document a program's work to ensure that their decisions would ultimately be defensible. Finally, some states emphasized the need for flexibility and discretion within the DAC definitions to allow modifications and exceptions to qualifying criteria.

ASDWA intends for state staff to use this document as they work to analyze the viability of their current DAC definitions and affordability criteria, modify these parameters, or continue to evaluate their new definitions.

Introduction

In response to the passage of the BIL and the release of EPA's BIL implementation memorandum, ASDWA hosted two states-only discussions in May and July 2022 on the complexity of evaluating state definitions for "disadvantaged communities" and the work to modify these definitions if necessary. During these discussions, many expressed a desire to better understand the work that other states had already begun. To achieve this, ASDWA staff surveyed state programs to determine which states had already evaluated their definitions and which had moved forward with developing modifications to their DAC definitions. Of these, ASDWA selected 10 states to assess further and to develop case studies that could be used by other states.

ASDWA developed a series of questions with the help of its Environmental Justice Workgroup, to inform a series of one-hour interviews with the 10 states selected. All 10 DWSRF programs had reviewed their DAC definitions and either modified those definitions or maintained them but changed their affordability criteria. ASDWA conducted these interviews in August and September of 2022. ASDWA then compiled the information into case studies for each state comparing "old" and "new" DAC definitions or affordability criteria, identifying the drivers for these changes, discussing the decisions made by each DWSRF program, and highlighting the lessons learned throughout the process. Finally, ASDWA reviewed the 10 case studies to identify similar themes among the states.

In parallel, ASDWA also developed an interactive table that includes the most up-to-date DAC definitions at each state, with links to state DWSRF programs and any related environmental justice materials. ASDWA launched its new Environmental Justice webpage with this table in July 2022. ASDWA conducted a review of all state Intended Use Plans (IUPs) in November and December 2022 and determined that more than half of the DWSRF programs had made some modifications to their DAC

definitions, though the extent of these changes varied widely from state to state. ASDWA released an updated version of the DAC definitions table in January, 2023.

Background

The DWSRF program established under the 1996 SDWA amendments provide water systems and states with financial assistance to help meet the health protection objectives under SDWA. Public water systems (PWS) and their communities can apply to use DWSRF funds for preconstruction activities, including planning, design, siting, or for replacing or rehabilitating aging treatment, storage, or distribution facilities. Water systems cannot use DWSRF funding for non-infrastructure activities like monitoring, operation, or maintenance. While states¹ use [Public Water System Supervision \(PWSS\) grants](#) as one source of funding for drinking water program implementation, states may also take up to 31% of their total capitalization grants from EPA to be used as set-asides to help fund state programs and activities. These set-asides can include four percent for DWSRF program administration².

Each year, Congress appropriates funding to EPA to be distributed to the state DWSRF programs. EPA allocates a certain percentage of that funding (referred to as a capitalization grant) to each state based on the most recent [Drinking Water Infrastructure Needs Survey and Assessment](#) (DWINSA). The DWINSA is a statistical survey sent by EPA to public water systems throughout the country and estimates the infrastructure needs that are eligible for the DWSRF. The [most recent DWINSA](#) estimated that \$472.6 billion would be necessary to fund the infrastructure projects that will be needed from January 1, 2015, through December 31, 2034^v. To acquire these funds, DWSRF programs must provide a 20% monetary match to this pot of money to be distributed to the PWS within their state.

The SDWA outlines numerous requirements for state programs to use these funds. Each year the state DWSRF programs must draft an IUP. The documents that make up the IUP outline the DWSRF program's plan for using their capitalization grants. They provide a list of the projects the state plans to assist, establish the state's criteria for distributing DWSRF funds, and describe the program's financial status. The list of projects included in the IUP must provide a description of each project, the associated expected terms of financial assistance, and the size of the community served by the water system applying for the project. Alongside the IUP, states also create a Project Priority List (PPL) which provides the list of projects intended to receive DWSRF funds, including the state's ranking assigned to each project and the associated funding schedule. Both the DWSRF programs' IUPs and PPLs must be provided to the public for review and comment before submitting to EPA for review to allow the agency an opportunity to give the state program additional feedback.



In each fiscal year's base allotment to be provided to the states, a certain amount is marked as "Congressional Additional Subsidy," which must be given out to any DWSRF-eligible recipient in the form of either grants, principal forgiveness, or negative interest rate loans. For example, in fiscal year 2022, states were required to provide 14% of their capitalization grants under this subsidy. A similar but distinct requirement mandates that state DWSRF programs provide 12-35% of their capitalization grants as subsidies (grants, principal forgiveness, or negative interest rate loans) to state-defined DACs. Overall, states are given wide latitude regarding how they allocate their capitalization funds. Figure 1 was taken from EPA's May 12, 2022, memorandum^{vi} to DWSRF Branch Chiefs on FY 2022 DWSRF Base Allotment Availability, which provided a visual representation of an example breakdown of these different pots of funding.

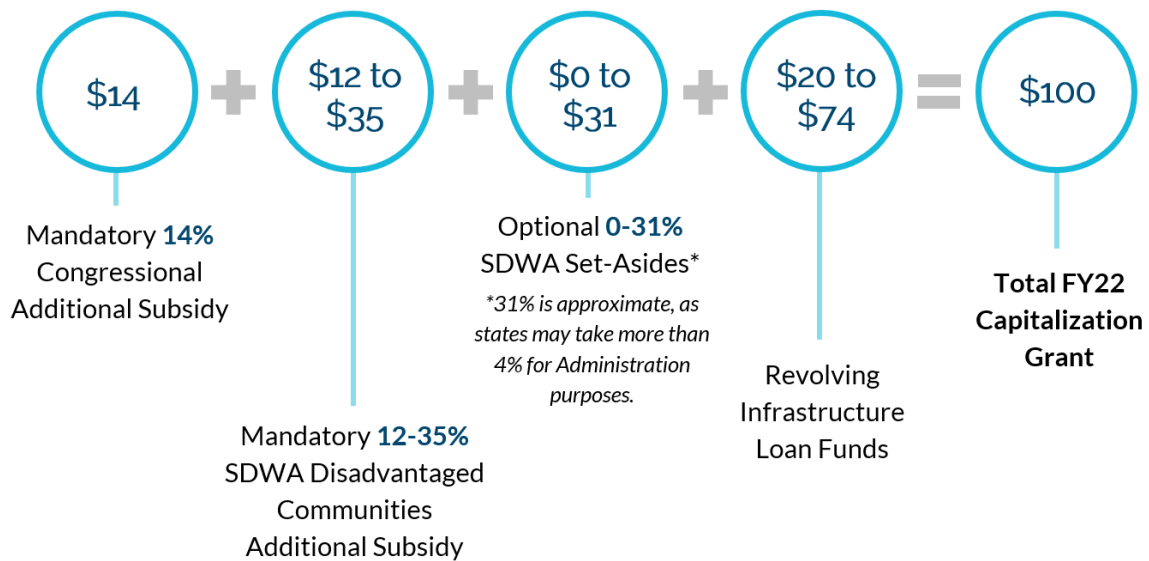


Figure 1. Example of possible breakdown for a DWSRF program's base capitalization grant. Taken from EPA's May 12, 2022 memorandum to DWSRF Branch Chiefs on FY 2022 DWSRF Base Allotment Availability.

The DAC subsidies are meant to help communities in greater need that may not be able to benefit from a standard DWSRF loan. The amount (between 12 and 35%) and the type of subsidy given out to a PWS for a particular project are determined by the state, and SDWA puts the responsibility of deciding what communities and projects qualify for subsidy up to the DWSRF programs. The [SDWA defines a “disadvantaged community”](#) as “the service area of a public water system that meets affordability criteria established after public review and comment by the state in which the public water system is located.” What constitutes a “disadvantaged community” is entirely up to the state DWSRF programs.

Two things are essential to remember when looking at funding subsidies and how DAC definitions impact subsidies. First, if a project qualifies for subsidy, it does not mean it will be funded 100% by DWSRF grants/principal forgiveness. Most projects will be financed by a combination of principal forgiveness and low-interest loans. Some states may also combine DWSRF funds with other funding sources to finance a project. Second, meeting a state's DAC definition is not the only factor determining the water

system's subsidy for its project. All DWSRF programs must develop prioritization and ranking criteria to help determine what proportion of a community's funding will be in the form of subsidy. DWSRF programs may decide not to change their original DAC definition and instead choose to modify the ranking criteria to meet their communities' needs better. DWSRF programs can offer water systems serving DACs additional benefits, including longer loan terms, lower interest rates, and other assistance to help implement critical infrastructure improvements in those communities.

Some in the drinking water community believe the development of a more standardized classification or process for determining what constitutes a disadvantaged community that could be used nationwide would be a positive step in the right direction and allow for more clarity and simplicity. However, ASDWA's discussions with DWSRF program staff made it clear that standardization would be a difficult task that might take away the flexibility DWSRF programs require to meet the unique needs of their communities. As has been discussed, the SDWA gives states wide latitude to implement their DWSRF programs, resulting in a broad spectrum of how these programs are managed and equally high variability in what is considered a DAC. Beyond these programmatic differences, DWSRF programs may be housed in different agencies within the state; others may be housed under the same manager creating varied processes among states. Additionally, some states only take applications for DWSRF projects once a year, while others have rolling applications and review those multiple times a year. This results in an extensive range of different but effective programs that work to provide the specific support PWS within their state need to use the DWSRF funds.

The 10 case studies highlight the complexity and vast differences in how each state approached changing its definition, the drivers for those changes, and the changes that were ultimately required to meet the needs of their communities. State DWSRF programs have been in place for decades, and state staff are in the best position to

determine which communities are most in need and should be captured within the DAC definition and ranking/prioritization process.

Bipartisan Infrastructure Law

The [Bipartisan Infrastructure Law](#) (BIL) was passed on November 15, 2022. The law provided a significant increase in federal funding for drinking water projects – over \$35 billion (see Table 1). Most of these funds will be distributed from EPA to the states and then to communities through the DWSRF programs. Each category of BIL money has a required amount of additional subsidy that states must meet and an additional state match on top of the 20% for the base capitalization grants.

Table 1. Breakdown of Major Drinking Water Programs under BIL

Program	Total Funding Amount	Amount of Funding per Year	State Match	Additional Subsidy
Additional DWSRF FY2022*	\$1,902,000,000	N/A	10%	49%
Additional DWSRF FY2023*	\$2,202,000,000	N/A	10%	49%
Additional DWSRF FY2024*	\$2,403,000,000	N/A	20%	49%
Additional DWSRF FY2025*	\$2,603,000,000	N/A	20%	49%
Additional DWSRF FY2026*	\$2,603,000,000	N/A	20%	49%
Lead Service Line Replacement	\$15,000,000,000	\$3,000,000,000	None	49%
DWSRF Emerging Contaminants	\$4,000,000,000	\$800,000,000	None	100%
Small & DAC Emerging Contaminants ⁱ	\$5,000,000,000	\$1,000,000,000	None	

**This is in addition to the normal Cap grants – 2022 base DWSRF Cap grants allotted to states was \$700,756,000
i. WIIN funds do not go through the DWSRFs*

In the [BIL Implementation Memorandum](#) released by EPA on March 8, 2022, the agency spelled out its expectations for states to evaluate and revise, as needed, the DWSRF disadvantaged community definition. The agency highlighted that these definitions should capture urban and rural disadvantaged communities. Additionally, EPA's memo stated that a definition that only includes population is "problematic." While EPA can strongly encourage states to review and update these definitions, the authority to define DAC under SDWA belongs to the states. Therefore, the DWSRF programs ultimately decide what action to take or not, and changing a state's DAC definition can be highly complex and resource-intensive, which will be discussed later in this report. In response to both BIL and EPA's memo, many states began to analyze their DAC definitions and undertake modifications to better meet the needs of their communities.

+ Comparison to EPA's June 2022 report:

"DWSRF Disadvantaged Community Definitions: A Reference for State"

In June 2022, EPA released a [reference document](#) for states regarding DAC definitions within the DWSRF programs^{vii}. The report summarized the indicators that states used to define DAC. To develop this document, EPA staff relied primarily on the 2021 IUPs and additional conversations with state staff. The report discussed the advantages and limitations of the various indicator types and included considerations for states reexamining their DAC definitions. An appendix at the end of the report listed every definition for disadvantaged communities among the different state programs. This reference document provides a good baseline, but the analysis was done pre-BIL, and the definitions for DAC included were static at a time when dozens of states were evaluating and modifying their definitions.

To obtain the most up-to-date information, ASDWA staff reviewed the newest available IUPs from each state to determine whether changes were made to the definitions for what constitutes a “disadvantaged community” and, if changes were made, what indices and metrics were now included. The latest definitions can be found on [ASDWA's Environmental Justice webpage](#), which includes an interactive database of the DAC definitions for each state. The database has links to where these definitions can be found online, as well as state DWSRF and environmental justice resources. As of the writing of this paper (Nov-Dec 2022), more than half of the states have modified their DAC definitions since EPA's report. The degree of these changes varied widely, with some states simply updating median household income figures and others using entirely new and sometimes unique metrics to define a DAC.

Table 2 compares the indicators used pre-BIL and indicators used post-BIL. Median Household Income and water rates continue to be the most used metrics, often used in conjunction with one another to determine the percentage of income going toward water bills. The most significant increases in the number of states using a particular indicator were the unemployment rate, poverty rate, and population trends. Six metrics saw minor decreases in the number of states using them: age composition, water rates, system size, system debt, municipal bond rating, and property value. Most commonly, states looked at a PWS's population as a whole, not at a more granular level like census tract or neighborhoods. However, a notable shift in considering smaller datasets has occurred, which is noted in the case studies.

The most significant change in state definitions for DAC is the inclusion of environmental justice tools: EPA's [EJScreen](#), Council on Environmental Quality's [Climate and Economic Justice Screening Tool](#), and CDC's [Social Vulnerability Index](#). These tools allow states to look at a variety of metrics in one location, and five states use at least one of these three tools.

Table 2. Comparison of indices used in state definitions pre-BIL (EPA's June 2022 Report) and post-BIL (ASDWA's research). Unless otherwise noted, indicators are the same as those used in EPA's Report.

Type of Indicator	Indicators	Number of States Using Indicator (from EPA's June 2022 report)	Number of States Using Indicator (from ASDWA's research)
Socioeconomic	Median Household Income or other income metric ^a	49	49
	Unemployment Rate	10	18
	Poverty Rate	8	12
	Percentage of Population Receiving Gov't Assistance ^b	1	3
	Labor Force Participation Rate	1	1
	Students on Free or Reduced Lunch ⁱ	N/A	1
Demographic	Population Trends	7	11
	Age Composition	2	11
	English Proficiency ⁱ	N/A	1
	Education ⁱ	N/A	1
Financial	Water Rates	27	25
	System Size ^c	16	15
	System Debt	7	5
	Municipal Bond Rating	2	0
	Proposed Loan Amount	1	1
	Property Value	3	2
	Regionalization/Consolidation ⁱ	N/A	3

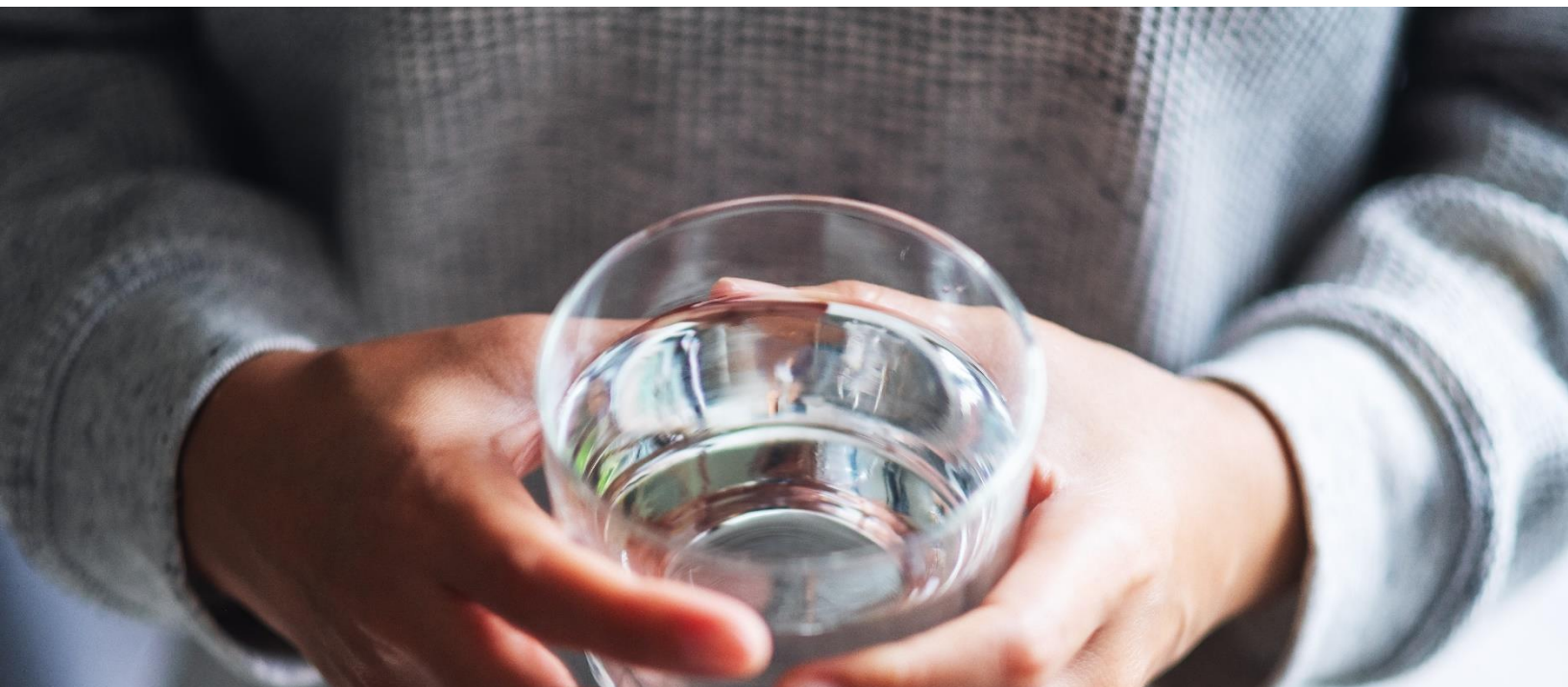
Type of Indicator	Indicators	Number of States Using Indicator (from EPA's June 2022 report)	Number of States Using Indicator (from ASDWA's research)
Financial	Community Financial Assessment ⁱ	N/A	3
Public Health	Human Health-related Factors	2	3
	Environmental Pollution/Contamination ⁱ	N/A	2
EJ	Environmental Justice Community or Similar Designation	2	2
	EPA's EJ Screen ⁱ	N/A	2
	CDC SVI ⁱ	N/A	1
	CEQ Tool ⁱ	N/A	4

i. Indices not included in EPA's June 2022 Report

a. Includes two states that use adjusted gross income or per capita income as indicators.

b. Government assistance includes Social Security, Supplemental Security Income, cash assistance, or Supplemental Nutrition Assistance Program (SNAP).

c. Either population served or number of connections.



+ ASDWA Case Studies for States that Evaluated and Modified their DAC Definitions or Affordability Criteria

During ASDWA's two states-only discussions on redefining DAC, state staff desired to learn more from their fellow DWSRF programs as everyone was analyzing and modifying definitions. ASDWA therefore conducted interviews with 10 states to develop case studies to explore similar themes and identify lessons learned. The 10 states interviewed were Alabama, Delaware, Kansas, Maryland, New Hampshire, North Dakota, Oklahoma, Oregon, Utah, and Wisconsin.

+ Drivers for states to change their definitions or affordability criteria

Although EPA's call for states to analyze their state DAC definitions and to make changes if needed was noted as a significant driver for some of the states interviewed, it was not the only one. The infrastructure law has specific requirements regarding how much subsidy must go to disadvantaged communities (see Table 1). Some states had definitions on the books that would have made it challenging to meet that requirement. Therefore, expanding those definitions was necessary to ensure that the extra funding under BIL could go out the door. The passage of BIL also put a spotlight on the DWSRF programs, and multiple states reported receiving record numbers of applications for funding. State staff noted that new DAC definitions were needed to help prioritize this large influx of projects.

Parallel to BIL, the Biden-Harris Administration unveiled the [Justice40 Initiative](#), which set a goal across all federal agencies to provide 40% of the overall benefits from federal investments to disadvantaged communities that have been marginalized, underserved, and overburdened by pollution^{viii}. This additional initiative pushed some state agencies to take a hard look at the definitions they had been using. In some cases,

states had already been considering changes to their DAC definitions, but the passage of BIL and the new Justice40 Initiative provided the push needed to prioritize this work.

+ Insights from DWSRF Case Studies

Most of the 10 case studies at the end of this report include their lessons learned from reviewing and changing their DAC definitions or affordability criteria, as well as recommendations for states who may still be considering these options. However, through the discussions with state DWSRF staff, some general themes were common to multiple states.

Public Outreach

All 10 states discussed the public outreach process involved in changing their DAC definitions or affordability criteria. A public comment period is required under SDWA for a DWSRF program's IUP and PPL, but some states went beyond the usual public notice and public comment period and reached out to communities with webinars, calls, workshops, and stakeholder meetings. Two states noted that DWSRF programs should start public communication early, even outside of the normal IUP process, to incorporate feedback into their state's work. Another state encouraged DWSRF programs to analyze what stakeholders the state had been reaching out to in the past to determine if they were reaching all those in need. The state noted that DWSRF staff might find out that the needs of those communities that hadn't been engaged may be different than initially expected.

Although multiple states reported increased interest and positive feedback from the public, most states reported very few, if any, formal comments from the public during the open comment periods, even with a greater focus on public outreach. This is an opportunity for those within the water sector, particularly those organizations

focused on community engagement and outreach, to work on identifying ways to increase public participation and knowledge of the DWSRF process.

Data

Multiple states emphasized the need for good data and staff specializing in data sciences as critical to their program's work to redefine DAC. States highlighted how critical their spatial analysis and GIS staff were to developing the new definitions or ranking criteria. One state emphasized the need to ensure that the definition is supported by defensible data that can be easily explained and understood. A second state encouraged other DWSRF programs to use the most granular data available, and another noted the need to make sure the data used is easy to gather. Finally, one state indicated that data modeling was essential to developing their DAC definition as this allowed them to evaluate their new definition with project lists from previous years.

Do your research and document your work.

Along the same lines as ensuring the data DWSRF programs use is sound and defensible, interviewees noted the need to ensure states do extensive research and document their work to show how they reached the conclusions that they did. One state indicated that most DWSRF programs will likely not have social scientists and economists on hand but that this perspective was critical. This state program looked at the peer-reviewed literature to obtain these viewpoints. Another state emphasized that all DWSRF programs should be documenting why they chose specific metrics and, just as importantly, why they decided to exclude others.

Flexibility and Simplicity

Multiple states highly recommended that DWSRF programs keep their DAC definitions and the process around ranking and prioritization as simple as possible. One state felt that by making a definition more complex, you run the risk of DWSRF

staff spending too much time digging for data and running analyses. Additionally, some states encouraged other DWSRF programs to build flexibility and discretion within their DAC definitions so that the state can make slight modifications or exceptions if a project or community calls for it.

+ Looking ahead: Will states make additional changes in the future?

In general, the states interviewed were open to modifying their definitions in the future if needed. There was recognition that although state staff took these changes very seriously and worked diligently to consider all options, they may not get it right the first time. Many states plan to evaluate the first year using their new definition to determine whether they are reaching the right communities or if additional modifications are needed. Additionally, states are hoping for more feedback from the public to inform possible changes moving forward.



Most of the states interviewed for this report can modify their definitions during the normal IUP process, but this flexibility is not available in every state. Some states throughout the country have their DAC definitions within their state regulations or statutes, which may require legislative action to make any changes. Therefore, this willingness to do multiple modifications may only encompass the opinions of some states.

Conclusions

Based on this report and the 10 case studies, implementing a DWSRF program is complex and varied. These programs oversee the distribution of millions of dollars yearly, and state staff spends countless hours ensuring this funding goes to those projects and communities that need it the most. Along with ensuring that the DWSRF funding is spent appropriately, modifying the definitions for a DAC is a complex addition to these programs' ongoing work. One finding from these interviews was that although there were similarities between each program, each state had different problems they were trying to address in the modification of these definitions, whether it was casting a wider net to ensure they were capturing all the communities in need or polishing their criteria to target neighborhoods that required the most support. A "one-size-fits-all" approach for defining a DAC across all DWSRF programs may not be feasible. Another finding was that public engagement was an area that could be improved upon. It will be important for states to continue to work together as a sector to identify and share innovative ways to fully engage communities that can benefit from these funds.

The 10 case studies provide a starting point for those DWSRF programs that may only be beginning to evaluate their DAC definitions and affordability criteria, as well as those who have decided changes are needed but have not yet started this process. As states, water systems, consulting engineers, and construction contractors move forward in implementing the immense amount of funding provided through BIL, additional states will likely modify their definitions, and states that have already done so may undergo further changes. Further evaluation of these definitions and criteria over the course of BIL funding will likely yield additional information to help inform DWSRF programs moving forward.



Appendix:



Ten State DAC Definition Case Studies



REDEFINING "DISADVANTAGED COMMUNITY" – ALABAMA'S DWSRF PERSPECTIVE

DON'T RUSH THE PROCESS

Old Definition:

The Department expects to allocate principal forgiveness exclusively to project in communities determined to be disadvantaged with the highest ratio of annual average water bill to median household income (MHI). Up to 50% of project loan costs not to exceed \$500,000 will be provided as principal forgiveness to the highest-rated communities until the requirement is met.

New Definition:

The Department expects to allocate principal forgiveness to projects in communities determined to be disadvantaged based on the following criteria: small (less than 10,000) communities, assessment of financial records, ratio of annual average water bill to MHI, and utilization of the Justice40 Mapping Tool.

What was the driver for this change?

After considering the amounts allotted to Alabama under the Bipartisan Infrastructure Law (BIL) and the American Rescue Plan Act, the state did public outreach to gauge the interest and needs for this funding. Alabama received interest letters from over 500 projects. The state realized it needed to change its definition for two reasons. First, the state needed a system to prioritize these projects to ensure funds reached the communities most in need. Second, **Alabama realized that under the old definition, the state would never hit the 49% subsidy requirement under BIL.** Additionally, they now had CEQ's Climate and Economic Justice Screening Tool (CEJST), and state staff wanted to explore the data that was now easily accessible.

Why did Alabama decide to use CEQ's CEJST? And why did the state opt to keep the water bill ratio metric?

The state began looking at larger communities that might not have been considered disadvantaged but serve disadvantaged neighborhoods. Alabama felt that these subsets of the community have been overlooked in the past and that this needed to be addressed. **CEJST allowed the state to evaluate specific areas within these larger systems and to count them as disadvantaged regardless of the status of the community as a whole.** The state opted to maintain the metric for the ratio of annual average water bill to MHI because the state realized that some communities they were certain should be considered disadvantaged were not being captured by CEJST. **Using both metrics, along with others, ensured they identified all communities in need.**

How will Alabama evaluate the success of the new definition moving forward? Does the state anticipate updating it in the future if needed?

Alabama hopes to hear from the public regarding the success of this new definition. Although they received few comments on this year's Intended Use Plan (IUP), the public has shown interest, and the state hopes for more engagement in the future. In particular, the state hopes that larger systems will apply more regularly for the SRF funds. Additionally, Alabama will use the next couple of years to determine if this definition will work beyond BIL.

Recommendations and Lessons Learned

1. **Don't rush the process.** Set aside the appropriate amount of time and staff resources needed to tackle this issue.
2. **Analyze what groups you have been reaching out to in the past.** Your current definition may have worked for those groups, but if you weren't reaching all those in need, you might find out that the needs of those communities are different than you initially thought.
3. **Look at ways to help communities make sound financial decisions.** Alabama now requires financial assessments and for communities to consider raising their rates. The state is also using set-aside funding to cover audits for communities.

Other Information of Interest

How long did the process of changing AL's definition for DAC take?	The state started the process in January 2022. They released the definition to the public during the normal IUP process in August 2022.
Did a lack of federal guidance in the beginning cause delay or concern?	Yes. State staff were told conflicting things, and a lack of guidance exacerbated confusion. The state had to go back to the drawing board more than they would have had the guidance been available.
What public engagement was done to get stakeholder input?	The definition was shared via the normal IUP process, where the state takes public comment. A few comments were received and addressed prior to finalizing the IUP.
Did AL look at utilizing smaller subsets of data such as county level or census tract?	AL did look at census tract data but determined that CEJST was sufficient to get to the granularity that the state needed.

REDEFINING “DISADVANTAGED COMMUNITY” – DELAWARE’S DWSRF PERSPECTIVE

KEEP AN OPEN MIND FOR CONTINUED CHANGES...

Old Definition:

Meets the Affordability Criteria, based on projected residential user rates as a percentage of Median Household Income (MHI) above 1.5 percent for a single wastewater or drinking water utility, and 3.0 percent for a combined wastewater and drinking water provided utility.

New Definition:

1. Meets the Affordability Criteria; or
2. Is identified by EPA EJScreen tool at 90% (USA) percentile or higher for Environmental Justice Indexes or for “Low Income” under the Socioeconomic Indexes; or
3. Is identified as disadvantaged by the White House Climate and Economic Screening Tool; or
4. Is underserved.

What was the driver for this change?

Delaware’s Drinking Water State Revolving Fund program was seen with fresh eyes from a new program administrator. Additionally, the White House’s Justice40 initiative highlighted the need to address environmental justice concerns. A question arose: *How do you ensure that the SRF subsidies get to where they need to be without being so inclusive that essentially everyone qualifies and prioritizing funding becomes difficult?*

Why did Delaware select a 90th percentile or higher for Environmental Justice Indexes and “Low Income” under the Socioeconomic Indexes?

90th percentile: Delaware needed to ensure it would have enough qualifying projects to meet the subsidy requirement under the Bipartisan Infrastructure Law.

Low Income: Including this index captured communities that weren’t captured under other indices but that the program knew by experience should be included.

How will the success of this new definition be evaluated?

The state plans to use the projects funded in year one to see if the subsidies are getting to those communities most in need and to see if the ranking criteria or definition needs to be amended further. The state will also get feedback from the state's Water Infrastructure Advisory Council Subcommittee for Drinking Water. **Delaware is open to changing the state's definition again in the future based on these findings.**

Recommendations and Lessons Learned

Get public feedback early. Delaware received a comment that single-handedly changed their definition. If DE had engaged more with the public early on they may have gotten additional useful feedback. If they look to change the definition again they will likely hold open public meetings.

Keep an open mind to changes in the future. The first iteration of a definition might not be perfect. Even if it is perfect now, it might not be in the future.

Other Information of Interest

How long did the process of changing DE's definition for DAC take?	Initial discussions started in November 2021. The draft Intended Use Plan with the definition included was released to the public in June 2022.
Did a lack of federal guidance in the beginning cause delay or concern?	Yes. It caused some hesitancy with the department's leadership to move forward with the state's own work before EPA had released anything.
Is DE changing the priority/ranking criteria alongside your definitions?	Yes, and this was included in the latest Intended Use Plan.
What public engagement was done to get stakeholder input?	The definition was shared with DE's Water Infrastructure Advisory Council and was released to the public via the state's Intended Use Plan process, where the public could provide feedback on the definition.
Did DE look at utilizing smaller subsets of data such as county level or census tract?	DE only has three counties, so county-level data would not work. Using EPA's EJScreen, which uses smaller subsets of data set, DE is able to look at the specifics of where the project's impacts will be and if that will impact the EJ communities.

REDEFINING “DISADVANTAGED COMMUNITY” – KANSAS’ DWSRF PERSPECTIVE

SMALL CHANGES CAN MAKE A BIG DIFFERENCE

Old Definition:

The Kansas Public Water Supply Loan Fund (KPWSLF) defined a disadvantaged community as any municipality that serves a population of 150 or less.

New Definition:

- (1) a public water supply system that serves a population of 150 or less. OR
- (2) a municipal public water supply system that has a percentage of population that is below the poverty level which is greater than the state-wide percentage of population that is below the poverty level (11.4% of the statewide population is below the poverty level for the 2023 IUP). OR
- (3) a project area confined by and benefiting specific census tracts that have a percentage of population that is below the poverty level which is greater than the state-wide percentage of population below the poverty level (11.4% of the statewide population is below the poverty level for the 2023.

What was the driver for this change?

There was a strong push from EPA to reevaluate definitions that were only using population. But more importantly, Kansas could not get the full grant amount under the Bipartisan Infrastructure Law (BIL) without proving the program was giving out enough additional subsidy and the state could only award BIL subsidies to disadvantaged communities. **To meet the requirements under BIL, Kansas had to expand its definition.** Now, 57% of projects on Kansas’ Project Priority List qualify as disadvantaged.

How will the success of this new definition be evaluated?

Will need to determine: Was Kansas able to use all the money allotted under BIL? Did enough communities apply? Did Kansas have to turn people away?

Why did Kansas change the ranking criteria for projects alongside the change in definition?

Kansas determined that a change to its ranking process was necessary, but not necessarily because of redefining a disadvantaged community. Kansas' previous ranking system was based on project scope. This process was not viable for the emerging contaminants and lead service line replacement pots of money under the Bipartisan Infrastructure Law. The project scope would have been the same for all applicants, making it impossible to rank them.

What changes were made to the ranking criteria?

Kansas kept the original ranking process framework for base program projects but modified it to make it more diversified. The state added more points based on specific project scopes, more diversity in points awarded for reliability type improvements, and more beneficiary measures for population and poverty. The lead service line projects were ranked according to actual lead removal (not just galvanized considered lead), lead action level exceedances, the status of service line inventory completion, project area designations using the Climate & Economic Justice Screening Tool (CEJST), the cost of private side replacement, and poverty levels. The emerging contaminants projects were ranked according to EPA's health advisory levels, harmful algal blooms for cyanobacterial toxins, PFAS contaminants, system service area designations using the CEJST, population, and treatment projects versus replacement projects.

Recommendations and Lessons Learned

1. Understand WHY you are changing the definition of disadvantaged communities.
2. Keep it flexible. Be able to change as you go.
3. KEEP IT SIMPLE.

Other Information of Interest

Why did KS keep the 150 population metric?	Small systems are economically challenged. BIL did not change that.
How long did the process of changing KS's definition for DAC take?	Kansas started right after the BIL guidance memo was released. Determining parameters and drafting the language only took a month.
Did a lack of federal guidance in the beginning cause delay or concern?	No. The Safe Drinking Water Act is clear that defining a "disadvantaged community" is completely up to the state.
What public engagement was done to get stakeholder input?	Kansas took public comment during the normal Intended Use Plan process.

REDEFINING “DISADVANTAGED COMMUNITY” – MARYLAND’S PERSPECTIVE

DEFINING A DISADVANTAGED COMMUNITY BEYOND THE STATE REVOLVING FUNDS

Old Definition:

Maryland’s SRF program’s previous definition of a disadvantaged community:

1. Water user rate per year per Equivalent Dwelling Unit (EDU) > 1% of Community MHI; or
2. Project is physically located and benefits an MDE-approved Environmental Benefit District; or
3. Project is physically located and benefits a community with MHI less than 70% of State MHI; or
4. Project is physically located and benefits a community in a Maryland County (including Baltimore City) with a high unemployment rate (upper 33rd percentile); or
5. Project is physically located and benefits a community in a Maryland County (including Baltimore City) where the U.S. Census data shows a declining population.

New Definition:

Maryland is in a unique situation compared to other SRF programs. In 2022, Maryland’s legislature passed a bill that, among other things, defined what is considered an “overburdened” or “underserved” community. These definitions must be applied across all state programs to determine how to prioritize communities.

“Overburdened Community” – means any census tract for which three or more of 21 different environmental health indicators are above the 75th percentile statewide. These factors include wastewater discharge indicators, lead paint indicators, proximity to a hazardous waste facility, and proximity to a Brownfields site.

“Underserved Community” - means any census tract in which, according to the most recent U.S. Census Bureau Survey:

- i. at least 25% of the residents qualify as low-income;
- ii. at least 50% of the residents identify as nonwhite; or
- iii. at least 15% of the residents have limited English proficiency.

What was the driver for this change?

Under Maryland Senate Bill 528, the Climate Solutions Now Act of 2022, the Department of Environmental Protection (DEP) was required to work with the state’s new Environmental Justice Commission to determine how the state should prioritize funding for underserved and unburdened communities. At the time, these terms were not defined. **The state’s only definition was for “environmental justice,” but this was based on EPA’s definition.**

How does Maryland apply this definition?

The state opted to use “and” rather than “or” when using the definitions for “overburdened” and “underserved.” Meaning that a community needs to be considered both overburdened and underserved to be prioritized. The state thinks this will help ensure they aren’t casting too wide of a net and are capturing those communities most in need. Additionally, Maryland developed its own [Environmental Justice Screening tool](#) that assesses environmental justice risks among census tracts in the state.

How is Maryland melding this new definition with the Bipartisan Infrastructure Law (BIL) funding?

As of the time of this interview (August 2022), Maryland had yet to decide how this definition would be applied specifically to the BIL funds. However, the state’s definitions for “underserved” and “overburdened,” as well as Maryland’s mapping tool, are meant to be used by all state staff in their day-to-day activities. The state’s budget office had already been in talks with DEP to discuss how to determine if BIL funds are going to these communities.

Regarding the SRF program specifically, the state was concerned that previous definitions were unequally prioritizing smaller, rural communities, which aren’t always as economically disadvantaged as some of Maryland’s urban centers. Maryland DEP is hopeful that these new definitions will help identify those communities most in need.

Other Information of Interest

How long did this process take?	MD DEP created an EJ committee at the end of 2020. A bill was passed in 2021, which altered the membership and charge of the state’s existing EJ Commission and added new members and duties. The bills defining “overburdened” and “underserved” passed in 2022.
Does MD anticipate modifying these definitions in the future?	It is possible they will narrow the definition of “overburdened” in the future, but this is not certain.

REDEFINING “DISADVANTAGED COMMUNITY” – NEW HAMPSHIRE’S DWSRF PERSPECTIVE

GOING BEYOND THE DRINKING WATER STATE REVOLVING FUNDS...

Old Definition:

A disadvantaged community or system is defined as a community public water system or community that serves residents whose median household income (MHI) is less than the statewide MHI based on the most recent census data and/or income survey. If an applicant for DWSRF assistance meets the definition of “disadvantaged” and if the resulting project user rate exceeds the statewide affordability criteria, it may be eligible for subsidies, in the form of principal forgiveness, from the Disadvantaged Community/System Program. Affordability is determined by a ratio that compares the average water rate to the median household income of the community. An affordable project is one that results in user rates that do not exceed 0.8% of the system or town MHI. The water rates are based on the most recent information compiled by New Hampshire Department of Environmental Services (NHDES) in its 2021 water rate survey report or from information provided directly by the applicant.

New Definition:

1. Financially Disadvantaged Water Systems - Non-transient public water system or community that serves residents whose median household income (MHI) is less than the statewide MHI (Attachment D) based on the most recent census data and/or income survey. If an applicant for DWSRF assistance meets the definition of “disadvantaged” and if the water rate exceeds the statewide affordability criteria (see section 3.8.3), it may be eligible for subsidies from the Disadvantaged Community/System Program. Subsidies will be available in the form of principal forgiveness. This program only applies to infrastructure projects; and
2. Environmentally Disadvantaged Water Systems - Non-transient public water system or community that is: 1) Affected by environmental pollution, naturally occurring contaminant(s), and/or has lead in the water supply or service lines; and 2) Is at risk for negative health effects due to contamination and/or there is water supply or lead service lines containing lead.

What was the driver for this change?

New Hampshire has a long tradition of assisting financially disadvantaged water systems but recently expanded its definition to include environmentally disadvantaged. This change was driven by the fact that residents in New Hampshire can be impacted by multi-media chemical exposures, and every effort needs to be employed to reduce this exposure. PFAS contamination in the drinking water, especially in New Hampshire’s population center in the southern part of the state, has impacted hundreds of thousands of people. Similarly, residents in this area may have been exposed to PFAS through inhalation due to emissions from a few manufacturing facilities. The state’s drinking water also can often contain elevated levels of naturally occurring radon, manganese, and uranium. Many residents living in older homes may obtain their drinking water from water lines containing lead.

New Hampshire identified the need to analyze environmental health impacts holistically - beyond drinking water. The state’s older housing stock can contain asbestos and lead paint; New Hampshire’s air quality has been impacted by air emissions from across the nation due to the prevailing west-to-east wind patterns, and many fish

species that are consumed contain unsafe levels of mercury. Alongside these issues, the state also has higher-than-expected cancer rates. For all these reasons, reducing exposure to contamination is a priority. Broadening the criteria of “disadvantaged community” to include water systems with contamination or lead pipes allows the state to have the flexibility to focus federal resources to eliminate exposure to contaminated drinking water.

How will New Hampshire evaluate the success of this new definition? Does the state plan to modify the definition in the future?

New Hampshire will assess the utility of the new definition over FY 2023 to determine if it resulted in any unintended consequences. The state plans to track the results of financial assistance programs using the new definition and adjust it accordingly if needed.

Beyond the SRF program, how has New Hampshire been helping communities address environmental contamination?

New Hampshire allocated millions of dollars from the American Rescue Plan Act of 2021 to financially disadvantaged water (and wastewater) systems. Qualifying systems were eligible for \$1 million grants. New Hampshire also has a State Drinking Water and Groundwater Trust Fund that provides loans and grants to water systems, including disadvantaged water systems. Additionally, the state has a PFAS grant and loan program for water systems. These additional funding options for financially disadvantaged water systems provide substantial resources to water systems separate from the SRF program. New Hampshire has also received EPA’s WIIN Grant for Small, Underserved, and Disadvantaged Communities over the last two years and has targeted these funds to address lingering issues for financially disadvantaged water systems.

Recommendations and Lessons Learned

1. Carefully tracking EPA’s environmental justice initiatives helped inform New Hampshire’s work.
2. States should look to use their definitions to address the unique issues facing their systems. In New Hampshire, this was exposure to contaminants like PFAS and lead.

Other Information of Interest

How long did the process of changing NH’s definition for DAC take?	The process was integrated into the annual update of the Intended Use Plan and associated public hearings and comment period over a few months.
Did a lack of federal guidance in the beginning cause delay or concern?	No. NH’s SRF partners at USEPA provided informal comments and recommendations as the state worked on revising its definition.
Did NH look at utilizing smaller subsets of data such as county level or census tract?	No. NH primarily has very small water systems. The state requires rate surveys to get more granular information on water systems that census tract or county-level data does not provide.

REDEFINING “DISADVANTAGED COMMUNITY” – NORTH DAKOTA’S DWSRF PERSPECTIVE

DON'T GET LOST DIGGING FOR DATA

Old Definition:

Criteria for determining the amount of loan forgiveness is on a project-specific basis. Loan forgiveness is based on the relative future water cost index (RFWCI). The RFWCI is defined as the ratio of the expected average annual residential water user charge resulting from the project, including costs recovered through special assessments, to the local median household income (based on the most-recent American Communities Survey 5-Year Estimate). For 2021, projects with a RFWCI of 2.0 percent or greater will qualify for 75 percent loan forgiveness. Projects with a RFWCI of 1.5 percent to 1.9 percent will qualify for 40 percent loan forgiveness.

New Definition:

The criteria used by the North Dakota DWSRF program are:

- The average annual residential water user charge as a percent of the local or service area annual median household income
- Percent of households with an income less than 200 percent of the poverty threshold
- Percent unemployment
- Percent of residents with less than a high school education

What was the driver for this change?

North Dakota had wanted to change its definition for a while, but the Bipartisan Infrastructure Law gave them the push the program needed. There were concerns that applicants could “game” the system. Future water cost was the primary factor the state considered. The higher the future water cost, the more “disadvantaged” the community was. North Dakota worried this incentivized applicants to pad their numbers for future water cost to be included in this group.

Did North Dakota change its ranking criteria as well?

North Dakota expanded its ranking criteria alongside the state’s new DAC definition, opting to include emerging contaminants. North Dakota wanted to make this as broad as possible. The state now asks if a project will address emerging contaminants and, if so, what contaminant. Additionally, North Dakota asks the water system to provide sampling data to show levels of contamination. If the contaminant has a Health Advisory Level (HAL), the project’s ranking is impacted by how close the current contamination is to the HAL.

Why did North Dakota expand its definition to include the federal poverty level, and why 200%?

The state looked at different tools that North Dakota could use and the information that could be gathered from those tools. The state determined that **EPA's EJScreen and the criteria included met North Dakota's needs and were easily accessible**. The state chose a 200% threshold partly to ensure that the definition is broad enough that North Dakota could use the full additional subsidy included in BIL.

What criteria did North Dakota consider but ultimately exclude? Why?

White House Council on Environmental Quality's Climate and Economic Justice Screening Tool: North Dakota decided not to use this tool because it seemed more restrictive. The tool defines a "disadvantaged community" for you, and the state wanted more flexibility. The census tracts considered disadvantaged with this tool would not have been inclusive enough to hit the state's subsidy under BIL.

Centers for Disease Control and Prevention's Social Vulnerability Index (SVI): North Dakota opted not to use this index due to its complexity. Additionally, the state was concerned that it wouldn't allow them to evaluate areas at the granularity that EJScreen allows.

Recommendations and Lessons Learned

1. Keep in mind that **you want your data to be easy to gather**. Don't make it so complex that you spend too much time digging for data.
2. **Look to your colleagues in other states** and learn from what they have done and accomplished.

Other Information of Interest

Why did ND include percent unemployed and percent with less than a high school degree?	The state already decided to use EJScreen, which includes both of these metrics, so the data was readily available.
What public engagement was done to get stakeholder input?	The state held multiple stakeholder engagements where they asked those in attendance what should be considered for this definition. They got important feedback from a large water system that helped influence the final definition.
Did ND look at utilizing smaller subsets of data such as county level or census tract?	ND has typically used city-level data, but EJScreen uses census tracts, so they are looking into this. ND allowed applicants to have a more discrete area considered using EJScreen and looking at census tract data for their affordability calculations.

REDEFINING “DISADVANTAGED COMMUNITY” – OKLAHOMA’S DWSRF PERSPECTIVE

KNOW YOUR STATE’S NEEDS; KEEP IT SIMPLE AND FLEXIBLE

Old Definition:

A “disadvantaged community” means those communities with a median household income that is less than or equal to 85% of the national median household income, according to the United States Census Bureau/American Community Survey.

New Definition:

A “Disadvantaged Community” means those communities which serve a population whose Median Household Income (MHI) is greater than 80% but less than 90% of the national MHI, according to the United States Census Bureau/American Community Survey. Communities serving a population whose MHI is less than 80% of the national MHI, according to the United States Census Bureau/American Community Survey, will be designated as “Severely Disadvantaged Communities” and hence will receive 60 priority points instead of the 40 points reserved for Disadvantaged Communities. MHI is based on the most recent 5-year average of median household income from the United States Census Data or through a household income survey acceptable to DEQ.

What was the driver for this change?

Oklahoma was already using a two-tier system based on their ranking criteria, but changing the state’s definition of a “disadvantaged community” (DAC) allowed the SRF program to be more explicit regarding who would qualify for additional subsidy. They wanted to ensure the money was getting to those who needed it most. Additionally, they had to expand their definition to meet the requirement under BIL that 49% of BIL funds went to disadvantaged communities.

Why did Oklahoma create a new category of “severely disadvantaged,” and how did the state determine the threshold?

Under Oklahoma’s previous definition, 85% qualified as “disadvantaged.” Currently, the state has not needed to rank these projects, but Oklahoma wanted a better way to prioritize which communities were the most in need in case the state did need to rank projects in the future. Even with this new “two-tier” system, most communities on Oklahoma’s Project Priority List fall into the “severely disadvantaged.”

Why did Oklahoma opt not to go further with new metrics?

The state wanted to keep it as simple as possible and wanted the definition to be easily understandable for the public. Oklahoma believes that the smaller disadvantaged communities in their state will always need more help, and they were already reaching these systems with the “old” definition. Overhauling the state’s definition would not have changed the outcome much but may have added too much complexity. The state also wanted to leave the flexibility to change the definition in the future if needed, and keeping it simple makes this easier.

What is the greatest limitation with any definition for a DAC in OK?

Some of the systems that need the help most don’t have the resources to help themselves. Even if they qualify as a DAC, if they don’t know what to do or aren’t able to submit an application to the state, they won’t be able to access this money. Additionally, there can be a stigma with the term “disadvantaged.”

Recommendations and Lessons Learned

Keep it simple and allow flexibility. The data your state may rely on is not necessarily scientific or well-defined. Allow your program discretion when determining what should be considered disadvantaged.

Each state is different, with different needs. Oklahoma is very rural, and this drove the state’s work.

Other Information of Interest

Did a lack of federal guidance in the beginning cause delay or concern?	This was a concern, but they had internal deadlines they had to meet. Plus, the Safe Drinking Water Act says this definition is up to the states.
What public engagement was done to get stakeholder input?	The definition was shared through the Intended Use Plan and a public meeting. The meeting had more attendees than any previous year, but the public only had questions and needed clarification. No comments were received from the public.
Did OK look at utilizing smaller subsets of data such as county level or census tract?	OK did not include this within the IUP or definition, but the state does have the discretion to use data like this. If there is a project in a community that does not qualify as disadvantaged, but the project would impact a disadvantaged group, the state could determine they qualify on a case-by-case basis. They did not want to create a “hard line” of you being in or out.

TARGETING “DISADVANTAGED COMMUNITIES” – OREGON’S DWSRF PERSPECTIVE

YOU CAN TARGET THOSE MOST IN NEED WITHOUT CHANGING THE DEFINITION OF “DISADVANTAGED COMMUNITY”

Affordability Criteria and Process Pre-BIL:

For the purposes of federal reporting, a disadvantaged community (DAC) is one that has a Median Household Income (MHI) below the state MHI Regardless of MHI. Before the Bipartisan Infrastructure Law (BIL), Oregon’s DAC definition was used after the project selection process when the state was ready to provide funding. At that point, Oregon would take whether the community was a DAC to determine the loan terms, including principal forgiveness (PF). Once selected, the state looked at various factors to determine the amount of PF, including compliance status, water system size, water rates, and potential for consolidation.

Affordability Criteria and Process Post-BIL:

After careful review, Oregon opted to maintain its DAC definition. Instead, the state updated its rating and ranking criteria to better target those communities most in need. The most significant change was Oregon’s prioritization process. **The state now considered a community’s DAC status during the project prioritization process rather than after.** In addition to this procedural change, new factors were added to the state’s affordability criteria: unemployment and poverty rate as well as system size. Oregon decided to include poverty rate because it incorporates the household size in addition to income, giving a better view of the whole picture. The new affordability criteria will be used for the BIL supplemental as well as DWSRF base funding.

What was the driver for this change?

Multiple factors, but the **Bipartisan Infrastructure Law (BIL) was the catalyst**, particularly the new 49% requirement for subsidy. Oregon’s SRF program is old, and the state had not considered the DAC definition and affordability criteria in the way BIL would require. Oregon wanted to ensure they weren’t leaving out any needy communities.

Why did Oregon decide to keep the state’s original definition which relies on MHI?

Oregon has a large percentage of census tracts below the state’s MHI. Oregon found that this metric captures a more significant number of systems than other metrics they considered. Without MHI, Oregon thought it would significantly limit the systems they would be able to capture. Once a community is included under this larger bucket, the SRF program can use the state’s updated affordability criteria to prioritize them.

What other parameters did Oregon consider for its affordability criteria?

Oregon looked at vacant homes data but didn't find great examples within the state where this data would be useful. Oregon also considered CDC's Social Vulnerability Index, but after evaluating it closely, the state determined it was too focused on disaster response and readiness to be of use for their purposes in the SRF program.

What was the most challenging part of the process?

A lack of water system boundary data was a significant limitation. Oregon only has this data for roughly 300 out of approximately 2500 public water systems in the state. Although the majority of these systems are very small, and therefore the boundary data may be less important, without this data, it is difficult to determine which census tracts may be aligned with a particular system.

Recommendations and Lessons Learned

1. **Do your research** to determine what parameters work best for your state. Most states will not have social scientists or economists on hand. It is essential to **look at the peer-reviewed literature**.
2. **You need data people**. Be sure you have a good spatial analyst on staff.
3. **The smaller the data unit, the better** (but with a high confidence level). Oregon used census tract and census block data from American Community Survey, which allowed them to get more granular within their larger systems.

Other Information of Interest

How long did the process of changing OR's affordability criteria take?	Around three months. They were able to do all the work internally within their drinking water program via a newly created workgroup focused on taking a fresh look at the affordability criteria.
Did a lack of federal guidance in the beginning cause delay or concern?	Not really. When OR began working on this, EPA's BIL implementation guidance was released. EPA's guidance provided helpful examples and suggestions that OR used in their process.
What public engagement was done to get stakeholder input?	OR utilized an existing Drinking Water Advisory Committee to review the state's work. The feedback they received was very positive, and no changes were made.
How will OR evaluate the success of this new process and the new affordability criteria for the BIL funding?	The state is unsure but would like to develop a process to look at this after the first year or two of BIL funding. OR is very willing to tweak this in the future if needed.

REDEFINING “DISADVANTAGED COMMUNITY” – UTAH’S DWSRF PERSPECTIVE

UTILIZE YOUR DATA EXPERTS

Old Definition:

Disadvantaged communities are those communities located in an area which has a median adjusted gross income (MAGI) which is less than or equal to 80% of the State’s MAGI, as determined by the Utah State Tax Commission from federal individual income tax returns excluding zero exemption returns, or where the established annual cost of drinking water service to the average residential user exceeds 1.75% of the median adjusted gross income.

New Definition:

Utah maintained the “old” definition for the state’s base SRF funding. However, for Bipartisan Infrastructure Law (BIL) funding, Utah expanded this definition for the funds specifically marked for lead service line (LSL) replacement. Utah adopted the following LSL replacement funding criteria:

1. If a water system serves one or more census tracts at or above the 80th percentile for the Demographic Index, then the water system may receive grant funding to plan for and replace lead service lines within those census tracts.
2. If a water system serves schools or childcare centers, then the water system may receive grant funding to plan for and replace lead service lines for schools and childcare centers.

What was the driver for this change?

Utah had already discussed the need to change its definition four years before BIL was passed. The state recognized that its definition didn’t take into account the different communities within larger water systems. However, they struggled to find staff resources to work on this issue. **The passage of BIL gave them an opportunity to prioritize this work.**

Will Utah continue to modify its definition in the future?

The state would like to increase the work in this area to modify the definition beyond just LSL replacement. However, at the moment, Utah does not have the staff resources to dedicate to this task. **The state is looking at using BIL set-asides to hire staff to focus on continued modifications to the definition for disadvantaged communities.**

How did Utah determine which metrics to use to capture these communities within larger systems?

State staff worked closely with Salt Lake City and Ogden City, two of Utah's largest water systems. These systems didn't qualify for subsidies because they didn't meet the criteria under the old definition, but it was clear that some communities within these systems are significantly disadvantaged. Utah asked these systems what they would do to identify EJ areas within their service areas. They ended up relying primarily on EPA's EJScreen and some other socioeconomic factors.

The state looked at both zip codes and census tracts when trying to determine which subset of data to use. Utah chose not to use zip codes because, outside of urban areas, the state's zip codes are vast. Some zip codes in the state have dozens of systems, while larger systems may have multiple zip codes within their service areas. Ultimately, it was determined that census tracts allowed for more granular data that better served Utah's needs.

Recommendations and Lessons Learned

1. Use your data scientists, especially those with GIS skills.
2. Zoom in on smaller areas: look at census tracts and zip codes. **Environmental Justice issues are localized.** Large systems have huge service areas with vast differences.
3. Be sure to document why you decided to use a particular metric and why you chose to exclude others.

Other Information of Interest

How long did the process of changing UT's definition for DAC take?	It took 3-4 months to change the component dealing with lead service line replacement.
Did a lack of federal guidance in the beginning cause delay or concern?	They waited as long as they could for this guidance but opted to move forward with their work but were ready to make small changes to their definition after EPA's guidance was released.
What public engagement was done to get stakeholder input?	Beyond work with Salt Lake and Ogden, Utah took public comment during the normal Intended Use Plan process. They reached out to some local community groups but struggled to raise interest in the IUP. No public comments were received.

REDEFINING “DISADVANTAGED COMMUNITY” – WISCONSIN’S DWSRF PERSPECTIVE

ENGAGE THE PUBLIC AS SOON AS POSSIBLE

Old Definition:

Principal Forgiveness distribution methodology: population points from 0-50 (highest points assigned to smallest populations); MHI points from 0-100 (based on municipality's MHI percentages of State MHI; highest points for lowest MHI); possible total points range from 0–150. Based on the sum of scores, projects fall into one of four tiers to qualify for Principal Forgiveness.

New Definition:

In response to BIL, Wisconsin reviewed numerous potential criteria and other policy changes. As a result of this work, a mostly new methodology developed. The revised methodology adds four new metrics to gauge the financial need of a municipalities’ residents: county unemployment rates, Lowest Quintile Household Income (LQI), family poverty percentage, and municipal population trends that are currently used in the Clean Water Fund Program (CWFP). Population points doubled and MHI remained the same. Additionally, nine more tiers were added so that the Principal Forgiveness percentage that a project qualifies for more accurately reflects the amount of points received during the ranking process.

What was the driver for this change?

Wisconsin was already planning on changing its definition before the Bipartisan Infrastructure Law (BIL). **The state wanted to better align the SDWLP and CWFP programs to reduce confusion for the public.**

Additionally, they had recently received good feedback from community groups on changes that needed to be made, and the state wanted to incorporate these thoughts. Wisconsin had planned to make these changes incrementally over a few years, but BIL pushed them to expedite this work.

Why did Wisconsin modify its methodology to include population trends, unemployment rate, LQI, and poverty index?

The state included both population trends and unemployment rate because these factors are required on the CWFP side. In the past, the Drinking Water program had used the unemployment rate but had removed it. It was simple to put it back. **Poverty index and LQI were a way to refine the MHI. You can have two communities with the same MHI, but the distribution can be vastly different.**

What other parameters did Wisconsin consider?

The state considered various metrics both individually and as groups. Staff reviewed CDC's Social Vulnerability Index, Supplemental Social Security, and Supplemental Nutrition Assistance Program (SNAP), among others. They ultimately excluded these metrics due to two reasons. First, the state felt that most of the socioeconomic factors they considered captured data similar to the poverty index. Second, **Wisconsin didn't want to increase the complexity of the scoring process**, as many communities self-score before applying for funding.

What public engagement did the state do to get input on these criteria?

Until recently, the SDWLP received almost no public input during the Intended Use Plan (IUP) open comment period. In the past few years, they have seen a significant increase in public interest, especially regarding principal forgiveness (PF). The public was interested in making PF more targeted. Wisconsin used the normal IUP process but went beyond what the state had previously done. The state held a public webinar to answer questions and met with community groups. **Wisconsin received more comments than any prior IUP** regarding the state's PF process and allocation and comments from a large water system within the state that had never provided feedback before.

Recommendations and Lessons Learned

1. **Data modeling is essential.** Wisconsin used projects from previous years as test cases to model scenarios to determine if the definition was working like the state wanted it to. State programs should use census data, a large dataset if possible, to see who qualifies and who doesn't.
2. **Use statistically sound methods.** Make sure your definition is supported by data and makes sense.
3. **Start public communication early** so you can work feedback into your state's planning.

Other Information of Interest

How long did the process of changing WI's definition for DAC take?	Staff did individual research and then met for a couple of hours each week for three months.
Did a lack of federal guidance in the beginning cause delay or concern?	Somewhat. The state held off on detailed discussions while waiting for EPA's guidance. Once it was apparent it would take longer to be released, Wisconsin had to move forward without it.
Did WI look at utilizing smaller subsets of data such as county level or census tract?	The poverty index uses census tract data, and the state is considering using this for lead service line (LSL) replacement projects.
Did WI modify its priority/ranking criteria alongside the definition?	The state added new criteria for PFAS projects and LSL replacement projects that weren't reflected in the original scoring system.