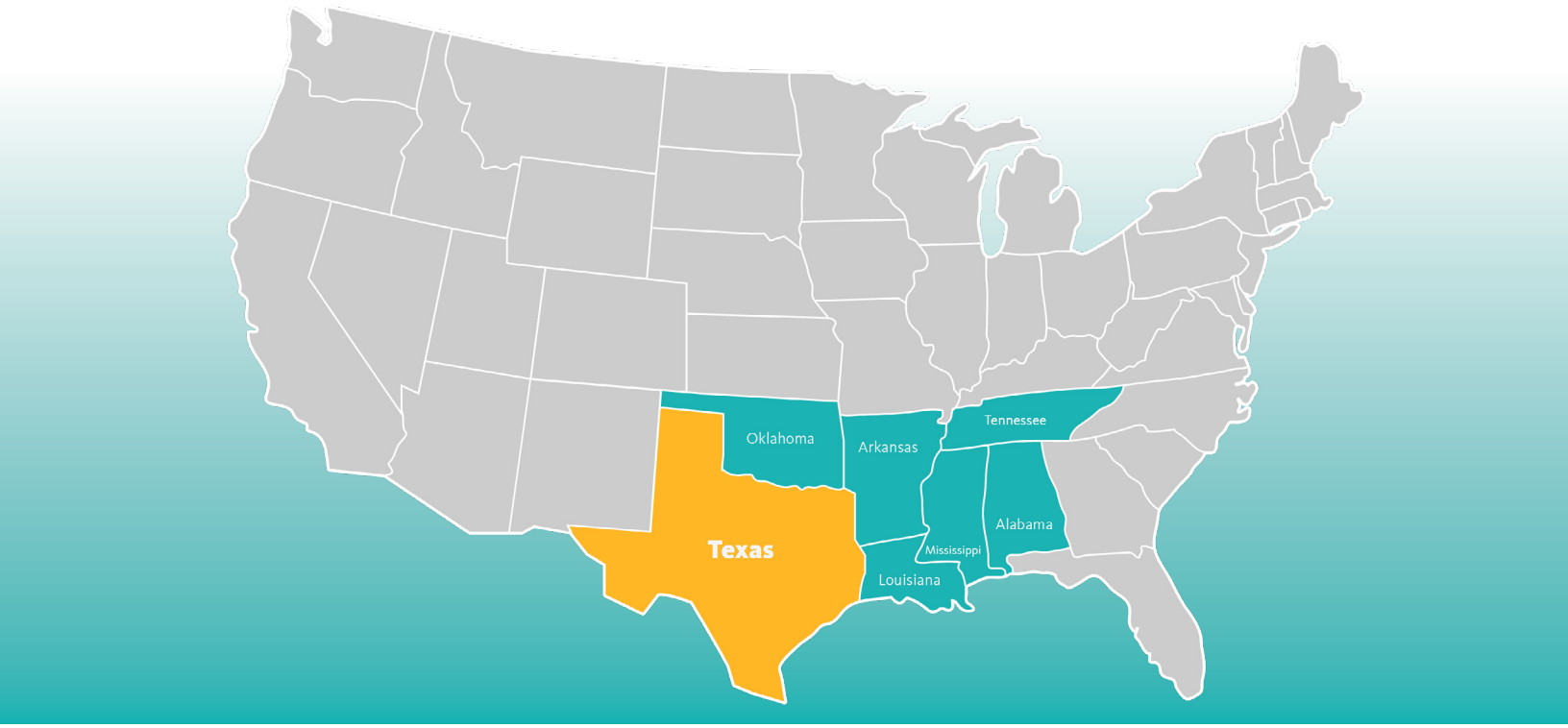


Analysis of the Texas Drinking Water State Revolving Fund and the Clean Water State Revolving Fund

Preface

The State of Water Infrastructure

Water infrastructure in the United States is aging and in need of replacement, and many systems are already failing. Estimates suggest $1.25 trillion ($625 billion for Drinking Water infrastructure and $630 billion for Clean Water infrastructure) is needed over the next 20 years to invest in wastewater, stormwater, and drinking water systems. Inadequate investments in water infrastructure has a significant negative impact on the health and well-being of communities, and disproportionately impacts low-income communities and communities of color.

The Bipartisan Infrastructure Law (BIL), passed in November of 2021, was the single largest federal investment in water infrastructure to date. Of the $55 billion to be administered by the Environmental Protection Agency (EPA), $43 billion is being distributed through the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) over Federal Fiscal Year (FFY) 2022-2026. Although 49% of these funds must be distributed to "disadvantaged communities" as grants or forgivable loans (rather than loans that need to be repaid), communities with the greatest need still face several barriers in accessing these funds. Interventions to address these barriers include reforms to State Revolving Fund (SRF) policies that determine how SRF funds are allocated to communities within each state.

Why and How This Project Came to Be

In early 2023, PolicyLink started its three-year "Southern State Revolving Fund (SRF) Analysis and Advocacy Project" to help ensure equitable implementation of BIL SRF funds and base SRF programs in the South. In focusing on the South, we recognized that the racial and economic disparity in clean and affordable water is particularly pronounced there and that there was a need for strong community-based advocacy.

This project consists of two main phases:

- **Phase I: Analyses of DWSRF and CWSRF Across Seven Southern States.** In early 2023, PolicyLink partnered with the Environmental Policy Innovation Center (EPIC) to train and support policy analysts across seven southern states (Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas) to conduct equity analyses of each state's Clean Water and Drinking Water State Revolving Fund. These analyses are being used to inform advocacy in Years 2 (2024) and 3 (2025) of the project.
- **Phase II: Community-Based-Organization (CBO) Led Advocacy Across Four States**. Of the seven states, PolicyLink selected four states—Alabama, Louisiana, Tennessee, and Texas—for Phase II (supporting CBO-led SRF Advocacy). These represent two states from EPA Region 4 (Tennessee and Alabama) and two states from EPA Region 6 (Louisiana and Texas). PolicyLink selected a cohort of 16 CBOs (4 CBOs per state) to undergo SRF advocacy training (administered by River Network) and supports them in their state and regional SRF advocacy efforts.

This document is part of the larger series of SRF program analyses (Phase I deliverables) developed by individual consultants, with guidance from PolicyLink and the Environmental Policy Innovation Center (EPIC).

To learn more about the project and/or to access other material related to the state analyses, please see the project site.

Acknowledgments

For the first phase of this project, we want to thank our partner, Janet Pritchard, from the Environmental Policy Innovation Center (EPIC), for providing a template for conducting the equity analyses, training our consultants, and reviewing each of the state outputs. We also want to thank our individual consultants who conducted analyses of SRF programs within their states:

- Alabama: Victoria Miller and Cindy Lowry, Alabama Rivers Alliance
- Arkansas: EPIC
- Louisiana: Rebecca Malpass, The Water Collaborative of Greater New Orleans
- Mississippi: Dr. Christine Curtis, Grow Where You're Planted
- Oklahoma: EPIC
- Tennessee: Grace Stranch and Anne Passino, Harpeth Conservancy
- Texas: Danielle Goshen, National Wildlife Federation

PolicyLink is grateful to the Robert Wood Johnson Foundation for supporting this project.

Introduction

In 2021, the U.S. Congress passed the Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL), allocating $50 billion over five years to the EPA's existing State Revolving Fund (SRF) programs, consisting of the Drinking Water State Revolving Fund (DWSRF) and the Clean Water State Revolving Fund (CWSRF).[1] Funds available under IIJA have represented a massive opportunity for Texas to transform its water infrastructure landscape—with an estimated $2.9 billion provided to improve drinking water and wastewater systems.[2] These funds are distributed to the states for local agencies to administer. The Texas Water Development Board (TWDB) administers the two SRF funding programs in Texas. However, the TWDB and the Texas Commission on Environmental Quality (TCEQ) execute an interagency contract governing the use of certain DWSRF capitalization grant funds for set-aside activities.[3]

The TWDB articulates how it intends to administer the SRF program through the annual Intended Use Plan (IUP). Contained within the IUPs is specific information about eligible project types; eligible applicants; the types of funding and financing available; project rating or prioritization; and funding available for technical assistance, among other key policy decisions. With the addition of the Emerging Contaminants (EC) and Lead Service Line Replacement (LSLR) Program under IIJA, the TWDB has created three IUPs under the DWSRF and two different IUPs under the CWSRF, each covering individual programs. The IUPs for each program can be found below.

- Drinking Water State Revolving Fund
  - SFY 2024 General Program IUP
  - SFY 2023 (FFY 2022) Lead Service Line Replacement Program
  - SFY 2023 (FFY 2022) Emerging Contaminants Program
- Clean Water State Revolving Fund
  - SFY 2024 General Program IUP
  - SFY 2023 (FFY 2022) Emerging Contaminants Program

While states are given significant leeway in administering SRF funds, there was a particular focus through IIJA on the use of these funds to benefit "disadvantaged communities" (or "DACs"). In particular, states must ensure that at least 49% of the funds provided under IIJA ("additional capitalization") must go toward projects in these communities as principal forgiveness. In addition to this federal requirement, investments in disserved and underserved communities in Texas are essential to ensuring safe, affordable, and clean water for all communities.

To this end, the TWDB has incorporated multiple policy choices into the DWSRF and CWSRF programs that effectively promote the equitable distribution of resources to communities most in need. First, the TWDB has set a cap of $10,000,000 as the maximum amount of principal forgiveness that may be committed to a project under the IUP. We applaud the TWDB for setting this cap, which we believe strikes a good balance between wanting to ensure that principal forgiveness is not consumed by a few projects, while at the same time being big enough to ensure that communities in need can receive the funding necessary to invest in drinking water infrastructure. Further, we support the TWDB's decision to offer 0% interest loans for urgent need projects, small and rural disadvantaged communities (DACs), and participation in the Asset Management Program for Small Systems (AMPSS), in addition to the principal forgiveness opportunities that these projects and communities are eligible for.

Recommendations

However, more can be done in Texas to help communities access SRF funding and invest in essential projects in the areas that need it most. The following policy recommendations are additional ways Texas can improve equitable outcomes through its SRF programs and increase program transparency and accessibility.

Recomendation 1: Improve Goals of Drinking Water State Revolving Fund and Clean Water State Revolving Fund

Goals under Texas's SRF programs are divided into short-term and long-term goals. In Texas, goals under both the CWSRF and DWSRF largely stick to the fulfillment of administrative duties. While some states highlight goals related to equity, affordability, climate resilience, and workforce development, these goals are largely missing from the Texas DWSRF and CWSRF IUPs. Interviews with stakeholders have indicated that improvements to the goals can be made by incorporating the following:

- Strengthen the language around green infrastructure from "encourage" to "prioritize";
- Add a goal to prioritize funding to disadvantaged and historically disinvested and underinvested communities;
- Add a goal to increase water affordability;
- Add a goal related to prioritizing sustainable and resilient projects; and
- Add a goal to encourage and prioritize projects that invest in workforce development.

While we strongly recommend incorporating the revision and additional items into the DWSRF and CWSRF general program goals, we also believe that these goals need to be supported throughout the rest of the IUP, especially as it relates to defining DACs and project rating.

Recomendation 2: Revise DWSRF and CWSRF Disadvantaged Community (DAC) Policies

The board defines DACs as the same under both general DWSRF and CWSRF programs. As discussed above, the TWDB's primary goal for the distribution of funds under the DWSRF and CWSRF should be to prioritize funding to disadvantaged and historically disinvested and underinvested communities. To achieve this goal, multiple policy recommendations can be revised to ensure the SRF programs are accessible to communities most in need. Many recommendations interact with each other and the success of the program to meet this goal depends on the proper implementation of a combination of these reforms.

For example, as will be further discussed below, we recommend creating a **DAC score (Recommendation 2(a))** to influence both whether a community qualifies as a DAC, the amount of principal forgiveness available to a community, and the project rating. Second, the **definition of disadvantaged community (Recommendation 2(b))** should be broad enough to encompass all underserved communities and provide an attractive opportunity for eligible applicants to apply for funding—yet should not be so broad as to make favorable financing available to communities that can easily pay for projects through other means. Third, when determining which communities qualify as disadvantaged, we also recommend that the project service area "**geographic scope**" **(Recommendation 2(c))** be used to ensure that projects servicing disadvantaged areas within larger communities are not left behind. Fourth, we recommend that the amount of **principal forgiveness (Recommendation 2(d))** for which a community is eligible should be commensurate with how disadvantaged the community is—with a higher percentage of project costs eligible for principal forgiveness for applicants with the lowest AMHI—further targeting principal forgiveness to communities facing the greatest socio-economic strains. Fifth, while the recommended changes would effectively broaden the list of entities eligible as disadvantaged, we believe that funds can still be targeted to areas most in need through proper **project rating (Recommendation 3)**, where most disadvantaged communities are ranked higher than other communities that are more able to pay for projects. This would ensure that principal forgiveness would be targeted to areas least likely to pay for projects, while 0% interest loans would be available to projects in underserved areas.

The policy choices involving DACs (definition, geographic scope, and principal forgiveness amounts) will be discussed in subsections, below, while the prioritization will be discussed in **Section 4**.

2A: Create a DAC Score

For less resourced communities, a big driver for whether they will be able to address their water infrastructure needs through the SRF program is whether they qualify as a DAC. This is the case because whether or not a community qualifies as a DAC determines whether they are eligible for principal forgiveness, 0% interest loans, and higher project ratings. While there is this need to precisely construct the DAC policies, Texas's current policies around DACs are both too narrow (e.g., the definition is not broad enough to encapture all disadvantaged communities) and too broad (e.g., all disadvantaged communities regardless of their level of disadvantage receive the same principal forgiveness).

To better target principal forgiveness and prioritize projects in higher need areas, we suggest a series of recommendations that work together to more effectively target SRF resources. The first of these recommendations is to create a DAC score. A DAC score would look at different factors that lead to a community being DAC with regard to water infrastructure. Among others, these factors can include things like population, AMHI, household affordability, social vulnerability, and environmental justice concerns. Note that these factors are discussed more in **Recommendation 2(b)**, below, pertaining to the DAC definition, as the same factors should be included in both the DAC score and the DAC definition. Once factors have been chosen, points can be provided for each factor utilizing a scaled approach. Principal forgiveness can then be provided for projects that reach a minimum point threshold. Further, as will be discussed later, priority points can be provided utilizing the applicant's DAC score.

Figure 1: Wisconsin DAC Score[4]

Table 1	
Points	**Population**
0	≥10,000
10	8,500–9,999
20	5,000–8,499
30	3,000–4,999
40	2,000–2,999
50	1,500–1,999
60	1,000–1,499
70	500–999
80	250–499
100	0-249

Table 2	
Points	**MHI Percent**
0	126%+
5	116% to <126%
10	106% to <116%
15	101% to <106%
20	96% to <101%
25	91% to <96%
30	86% to <91%
40	81% to <86%
50	76% to <81%
60	71% to <76%
70	66% to <71%
85	61% to <66%
100	<61%

Table 3	
Points	**Family Poverty Percentage**
0	<8%
5	8% to <12%
10	12% to <16%
20	16% to <20%
30	20% to <24%
40	24% to <28%
50	28% to <32%
65	32% to <36%
80	36% to <40%
100	40%+

Table 4	
Points	**Population Trend**
5	Projected to lose 5% to less than 10% of population over 20 years
10	Projected to lose 10% to less than 15% of population over 20 years
15	Projected to lose 15% or greater of population over 20 years

Table 5	
Points	**County Unemployment Rate**
10	County unemployment rate is greater than the state's rate by less than one percentage point
20	County unemployment rate is greater than the state's rate by one to less than two percentage points
25	County unemployment rate is greater than the state's rate by two percentage points or greater

For example, in **Figure 1** above, Wisconsin used population, AMHI, poverty level, population trend, unemployment, and LQI as factors in their DAC score. Then it allowed projects scoring more than 59 points to be eligible for principal forgiveness.

We recommend this approach to better target principal forgiveness (**Recommendation 2(d)**) and project rating (**Recommendation 3**) by transitioning to a scaled approach over a strict in/out one. This method recognizes that multiple factors can lead to a community being disadvantaged in terms of water infrastructure and provides an easy way for the TWDB to determine how much principal forgiveness and priority rating a project should receive depending on the level of disadvantage. In other words, while currently all DACs are considered equal by providing the same amount of project rating points and 70% principal forgiveness, a DAC score can be created to provide variable amounts of principal forgiveness and project rating points based on need.

While this recommendation only lays out the theoretical approach, and not an exact scoring system or how different DAC factors should be weighted against each other, we would rely on the TWDB to select appropriate factors like the ones outlined below in **Recommendation 2(b)**, and an associated weighting among the factors.

2B: Refine DAC Definition

In Texas, DACs under the general SRF programs are determined by AMHI and a household cost factor (HCF). To qualify as a DAC, the Annual Median Household Income (AMHI) of the entity's area to be served must be less than or equal to 75 percent of the State's AMHI. The Household Cost Factor (HCF), which considers income, unemployment rates, and population trends must be greater than or equal to 1% if only water or sewer service is provided or greater than or equal to 2% if both water and sewer service are provided. This provides a strict in/out definition, a community either qualifies as a DAC or does not—providing no differentiation between levels of disadvantage.

As discussed above, we believe that multiple factors should be considered to come up with a DAC score, and any project above a minimum threshold should be considered a DAC for purposes of principal forgiveness and other favorable financing. The following sections will propose revisions to the DAC definition, urging the board to consider additional factors and revisions to the current methodology.

To improve the DAC definition we recommend: 1) replacing the HCF with a metric that combines a Household Burden Indicator and Poverty Prevalence Indicator; and 2) exploring additional ways for communities to qualify as a DAC, both of which will be discussed briefly, below.

As discussed above, once all factors are selected for the DAC Score, a DAC could be defined as any community that has a DAC Score above a certain threshold.

Make the Current HCF an Additional Way Communities Can Qualify as a DAC

As currently formulated, the HCF is a complicated equation that considers income, unemployment rates, and population trends and must be greater than or equal to 1% if only water or sewer service is provided or greater than or equal to 2% if both water and sewer service are provided.[5] As it is understood, the use of a household cost factor is aimed at ensuring that communities that have low water rate burdens aren't prioritized for favorable financing as a DAC, instead prioritizing principal forgiveness to communities that are already burdened by their water rates.

Water service affordability should be a top priority for the TWDB. A recent report on the affordability of water and sewer services in Houston has shown that the most rate-impacted households between 2019 and 2025 are estimated to go from paying about 13 percent of yearly income on water and sewer bills to over 21 percent[6]—highlighting just how unaffordable these systems are and will continue to be for overburdened communities.

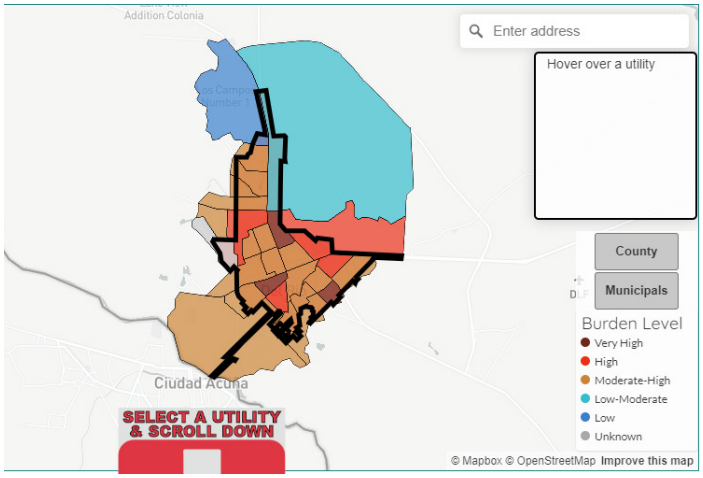
We believe, however, that the TWDB's current use of the HCF may not be adequately identifying communities that face high water rate burdens. Further, the HCF is hard to communicate and difficult for communities to calculate on their own when considering the SRFs as a potential funding source.

There are many reasons why a DAC in need of significant investments may have a low water rate burden. For example, if a community has not maintained its infrastructure and has not planned for and invested in proper improvements, then it may not be "overburdened" by its current water rates, and would thus not be eligible for DAC status. These shortcomings result in the HCF being an imprecise tool to determine which communities should be eligible as a DAC.

For example, in the 2024 Draft IUP Del Rio was identified as a community that meets the AMHI requirement but was eliminated from DAC eligibility due to its HCF score. Del Rio has a low AMHI ($49,243), a significant retired population, and only 55% of the population within the Del Rio Utilities Commission jurisdiction is within working age—despite recent increases in overall population and decreases in

unemployment. However, Del Rio's HCF score eliminated it from DAC eligibility despite a significant portion of the population experiencing moderate to very high levels of water rate burden. See **Image 2**, below.

Figure 2: Del Rio Water Rate Burden[7]



There are many evaluations the TWDB could make to assess affordability at the household scale. Household affordability refers to the financial impact on households served by water sector utilities, while community affordability or financial capability refers to the ability of the utility (or community as a whole) to gain access to financing and adequate revenue to invest in necessary capital improvements, cover associated operation and maintenance costs, and maintain a suitable reserve for contingencies and periodic equipment replacement.[8] The former is relatively simple to calculate using different metrics, while the latter is more complex, for example looking at utility cash flow forecasting, and can require substantial analysis to complete. While water system debt may be a crude proxy for community or utility affordability and should be considered by the TWDB, to balance the burden on the applicant with the need to identify communities most in need, we are not recommending a community or utility affordability metric at this time. If TWDB already compiles information about the financial capability of the system, this information could also be incorporated to identify financially insecure water systems.

However, improvements can be made to the current HCF methodology to better identify areas with affordability concerns. Through literature review and stakeholder outreach (that included utilities, low-income advocacy groups, and academics, among others) the American Water Works Association (AWWA) developed a report in 2019 evaluating various affordability metrics and proposing a new framework for measuring household and community affordability to improve the EPA's own household and community affordability indicators. Through this research, AWWA recommended, as an alternative to the EPA's Residential Indicator, which assessed service cost per household as a percentage of AMHI for the service area, the following indicators:

- Household Burden Indicator (HBI): Total basic water service costs (combined) as a percent of the 20th Percentile of Community Household Income (the lowest quintile income, LQI); plus
- Poverty Prevalence Indicator (PPI): The percentage of community households at or below 200% of the federal poverty level (FPL).

The rationale for these metrics is that HBI reflects the economic burden that relatively low-income households in that community face; and the PPI reflects the degree to which poverty is prevalent in the community. Therefore, in combination, the metrics provide an assessment of household level burden and a community-based level of prevalence of the affordability challenge posed by water sector costs.[9]

As it relates to HBI, the AWWA recommends that if combined water costs are below 7% then affordability may be deemed low burden; between 7–10% of service area LQI, then water costs should be deemed as high burden and potentially unaffordable; and above 10% meaning that water services are highly burdensome and not affordable. For the PPI, if a community has less than 20% of households below 200% of the FPL, then that community may be relatively affluent, with greater than or equal to 35% of the households meeting the 200% FPL threshold exhibiting higher levels of poverty.

Since both the HBI and PPI are evaluated together, the AWWA provided the following matrix to determine the affordability burden on households (see **Table 1**). This matrix shows that "household affordability for the community is deemed a high burden if total water costs are a relatively high percentage of household income for the LQI household, and a relatively large portion of the community households are economically challenged."[10] This matrix "reflects that water services may be highly burdensome and unaffordable if a large proportion of the community's households are below twice the FPL, even if water bills are a relatively low percent of LQI."[11]

Figure3: AWWA Benchmarks for Recommended Household Affordability Metrics[12]

HBI - Water Costs as a Percent of Income at LQI	PPI - Percent of Households Below 200% of FPL		
	>=35%	20% to 35%	<20%
>=10%	Very High Burden	High Burden	Moderate-High Burden
7% to 10%	High Burden	Moderate-High Burden	Moderate-Low Burden
< 7%	Moderate-High Burden	Moderate-Low Burden	Low Burden

Higher points when calculating the DAC score can be provided to communities with higher burden levels given the matrix, above. Doing so would allow the TWDB to better direct favorable financial assistance to communities least able to pay for projects.

Consider Adding Additional Indicators under the DAC Definition

In addition to modifying the HCF under the DAC definition, the TWDB should also consider providing additional factors for communities to qualify as a DAC under both the DWSRF and CWSRF programs. The EPA provides numerous indicators that can be included in the definition of disadvantaged communities that are not currently utilized by the TWDB. Of particular interest, the EPA has identified environmental justice and human health factors as additional indicators that should be considered when defining DACs. In addition to the economic disadvantage metrics used, these factors that look at disadvantages based on community vulnerability and health should also be considered when weighing whether changes are needed to the definition to ensure grants and forgivable loans are going to communities most in need.

Use SVI as an additional indicator for dwsrf dac definition. We believe that the TWDB should strongly consider the use of social vulnerability scores to identify an additional approach for communities to qualify as disadvantaged. As per the Centers for Disease Control and Prevention (CDC), social vulnerability pertains to the potential adverse impacts on communities resulting from external stresses on human health, encompassing natural or human-induced disasters, as well as disease outbreaks. A higher Social Vulnerability score results in a higher Risk Index score.

In Texas, we've seen that under the DWSRF for the years analyzed (2016, 2017, 2019, and 2020), the successful cities SVI score was lower than the SVI score of unsuccessful cities for DWSRF.

Figure 4: SVI of Cities that Submitted PIFs vs. SVI of Cities that received DWSRF funding

	AVG	MEDIAN
Weighted SVI for cities that submitted PIFs	0.584364	0.529963
Weighted average SVI for successful cities	0.524653	0.52305

This means that areas that are supposed to be more resilient already are more likely to receive funding.

While acknowledging that the social vulnerability index is not a flawless metric, it can effectively serve as a proxy for recognizing historically marginalized and overburdened communities. Leveraging this index can therefore pave the way for the equitable allocation of resources and benefits to these underprivileged communities in the hopes of increasing the resilience of these communities. Therefore, we recommend adding SVI to the list of factors utilized when determining a community's DAC score—with areas of higher social vulnerability eligible for more points. This will help promote a fairer and more inclusive distribution of resources, ultimately contributing to the overall well-being and resilience of these communities.

Use EPA's EJscreen as an additional indicator for the cwsrf dac definition. The EPA's Environmental Justice mapping and screening tool ("EJScreen") creates a nationally consistent dataset and approach for combining environmental and demographic socioeconomic indicators. While the CDC's SVI rating predicts how vulnerable a population may be, due to

demographic data, the EJScreen is more suited as an additional indicator used to identify DACs under the CWSRF as it has the additional benefit of considering areas that may have potential environmental quality issues.

For example, under the Environmental Justice Indexes, the wastewater discharge layer shows block groups with the highest intersection of five socioeconomic factors and wastewater discharges—which uses Risk-Screening Environmental Indicators (RSEI) modeled toxic concentrations at stream segments within 500 meters, divided by distance in kilometers (km).[13] This layer represents the amount of toxic chemicals released from industrial and federal facilities as well as each chemical's relative toxicity, or the potential impacts it could have on human and environmental health.[14] As the CWSRF program works to offer funding and financing for a wide variety of water quality projects, projects in areas already experiencing environmental quality issues should be prioritized for principal forgiveness. Areas with higher water quality concerns, as indicated by EJScreen, should be eligible for more points under the DAC Score.

2C: Use Project Service Areas as the Geographic Scope for DAC Identification

As noted above, we believe that the TWDB should provide a reasonably broad DAC definition, while prioritizing projects in areas of higher disadvantage and providing higher amounts of principal forgiveness for the areas most disadvantaged. One common concern that has been raised regarding Texas's administration of the SRF program is that urban disadvantaged communities are often not captured by the DAC definition. This happens because when determining DAC status, the total service area of the applicant is used when calculating demographic and HCF data. Often for large urban disadvantaged communities, the service area of the applicant contains other communities or neighborhoods with higher AMHI than the disadvantaged subcommunity receiving the project—resulting in the community not being eligible as a DAC. However, we believe the aim of the SRF programs should be to improve water infrastructure in areas most in need.

One way to ensure that subsets of disadvantaged communities within communities can receive funding is to change the geographic scope of the indicators used to define DACs to look at the *project service area* instead of the *applicant service area*. Changing the geographic scope to consider project service area will be a better indicator of the area to be served, will be overburdened by additional costs associated with projects, and will allow projects in urban disadvantaged areas the opportunity to receive additional grant or forgivable loan opportunities. This incentivizes larger systems to invest in areas that may have been historically disinvested and underinvested in.

Therefore, we recommend changing the geographic scope of indicators used to identify disadvantaged communities from the applicant service area to the project service area in order to help ensure that disadvantaged communities within larger metropolitan water systems are eligible for principal forgiveness.

2D: Sliding Scale for Principal Forgiveness and Removal of 70% Cap

Under previous IUPs, the TWDB provided either 30%, 50%, or 70% grants or forgivable loans to eligible DACs. Under the current draft IUP, the TWDB has revised the amount of grants/principal forgiveness that disadvantaged communities are eligible for to a standardized 70%. The TWDB notes in the draft IUP that this will not only provide significant benefits to communities but will also help the TWDB reach the requirement under the IIJA to provide 49% principal forgiveness for disadvantaged communities.

However, we believe that a uniform 70% principal forgiveness for all disadvantaged communities may prove excessive for some communities while insufficient for others. This concern is particularly salient given that the project rating does not consider varying levels of disadvantage, as noted above. In simpler terms, for less disadvantaged communities, a 70% principal forgiveness may result in financial support above their actual needs—resulting in spending down principal forgiveness funds prematurely. Conversely, for more disadvantaged communities, a 70% principal forgiveness may fall short of that needed for the community to access SRF funding.

Similar to how the TWDB provided 30%, 50%, or 70% grants under previous IUPs, we firmly advocate for the implementation of a sliding scale approach for the amount of principal forgiveness a project is eligible for, wherein higher levels of principal forgiveness are allocated to projects with higher DAC scores, as discussed in **Recommendation 2(a)**.

We further recommend providing up to a 100% principal forgiveness rate. Without the possibility of accessing 100% grant or forgivable loans, the most underresourced communities in Texas will continue to face insurmountable barriers in investing in critical water infrastructure,

perpetuating their vulnerability and hindering their development. If more principal forgiveness is needed to ensure funding, the TWDB can increase the amount of principal forgiveness allocated from the regular/base appropriations. While 31.9% of the regular/base appropriations were reserved for principal forgiveness under the DWSRF, an additional 17% could be provided as principal forgiveness. Similarly, under the CWSRF, while 25% of the regular/base appropriations were reserved for principal forgiveness, an additional 14.6% could be provided as principal forgiveness. Further, state funds under SB 28[15] could be utilized to provide additional principal forgiveness to communities.

Recomendation 3: Revise Project Rating Criteria

In addition to refining the DAC definition and providing a sliding scale for principal forgiveness, there are multiple ways the prioritization scheme can be improved to better prioritize not only DACs but projects more broadly. Properly prioritizing projects will ensure that SRF funding can properly address particular water concerns facing Texas communities. The following sections will provide recommendations on how to improve the DWSRF and CWSRF project rating criteria to ensure improved outcomes for the SRF programs.

3A: Provide Project Rating Points Based on DAC Score

In addition to utilizing the DAC score for DAC eligibility and principal forgiveness, the DAC score can also be used to provide priority rating points on a sliding scale. Under the current rating system, all DACs receive 20 project priority rating points, regardless of the community's level of disadvantage. This has not led to the most equitable prioritization of projects.

For example, in Texas, we've seen that under the DWSRF and CWSRF for the years analyzed (2016, 2017, 2019, and 2020) the median AMHI of cities that received commitments is larger than the median AMHI of cities that did not receive financial commitments during the years analyzed (see **Figure 5**, below). The same is true for the average, except for the CWSRF, whose average AMHI in successful cities was slightly less than the average AMHI of cities that submitted PIFs but did not receive funding.

This shows that higher resourced areas have a greater chance of receiving financial assistance under the SRF programs. This could be due, for example, to greater capacity and resources in higher AMHI communities, or lower resourced areas not being able to proceed with projects and dropping out of participation in the DWSRF program.

To address the latter scenario, we believe that the program should strive to prioritize the most disadvantaged communities that would likely be unable to access funding for drinking water infrastructure without these funds. Therefore, to better target commitments, we encourage the TWDB to provide a sliding scale for points to distinguish among disadvantaged communities. This can be done by multiplying the DAC Score created in Recommendation 2(b) above and using that number as priority ranking points.

By utilizing a sliding scale that distinguishes among communities that qualify as a DAC, the TWDB will be able to better ensure that the communities that have the least ability to pay for their projects are prioritized higher than more resourced communities.

Figure 5*: DWSRF and CWSRF AMHI Successful and Unsuccessful Cities*

	DWSRF		**CWSRF**	
	AVG	**MEDIAN**	**AVG**	**MEDIAN**
AMHI of cities that submitted PIFs	44,265	41,563	46740	43642
AMHI of cities that received commitments	48,704	43,681	46,629	44,637

3B: Include a Project Rating Criterion for Projects that Invest in Green Projects

"Green infrastructure" encompasses natural features and solutions that mimic, use or restore natural ecological processes. These methods are aimed at lessening the effects of flooding and diminishing the amount of pollutants and debris entering water bodies. Green infrastructure enables water to be absorbed by soil and plants, rather than allowing it to enter groundwater or surface water, thus preventing water from overwhelming sewer systems and reducing sewer overflows. Green infrastructure, whether used independently or in conjunction with traditional gray infrastructure, offers economical and sustainable measures to address various natural threats, such as drought, fire mitigation, and flooding. While Texas routinely meets its goals for the green project reserve, more can be done to prioritize green and nature-based projects. The TWDB can provide further incentives for eligible entities to apply for green projects by providing rating points during project prioritization. Points available for green projects can be provided in proportion to the nature-based components compared to total project costs.

3C: Include a Project Rating Criterion for Projects that Invest in Workforce Development

According to the EPA, there are multiple challenges for the water sector workforce.16 These challenges include:

- Aging workforce—many workers eligible to retire in the next decade;
- Training to keep the workforce up to date as technology rapidly advances across the sector;
- Industry lacking gender and racial diversity, especially in skilled trade positions; and
- Difficulties recruiting, training, and retaining trained operators in rural and tribal areas.

Therefore, to incentivize applicants to address these issues, the TWDB can provide prioritization points for projects that promote workforce development in the water sector. Examples of ways a project can show workforce development can include hiring a certain percentage of local employees or providing on-the-job training and skill development, among others.

Recomendation 4: Technical Assistance and Administration

The IIJA emphasizes directing supplemental SRF dollars to disadvantaged communities —requiring at least 49% of funds to be allocated toward entities that meet that definition. States, however, are given significant leeway in developing a definition for disadvantaged communities, prioritizing projects, and developing technical assistance programs that all work together to shape how disadvantaged communities access SRF funds. While states retain broad discretion over their SRF programs, the EPA has stated an expectation that the states will evaluate and revise their definition of disadvantaged communities, project prioritization scheme, and Technical Assistance programs to direct more SRF investments to disadvantaged areas.17

To aid in this, states are allowed to set aside up to 6% of CWSRF and DWSRF federal capitalization grants for Technical Assistance programs and state administration, and an additional 25% of DWSRF grants (for a total of 31%) for state program administration and local assistance. These set-aside allowances apply to both the supplemental funds appropriated by the IIJA as well as the base/regularly appropriated funds.

4A: Increase Use of Set-Aside Funding Under the Local Assistance Program for DWSRF

Currently, the TWDB is underutilizing the amount of available funds to set aside for state administration, technical assistance, and other local assistance. Under the IUP for SFY 2024, the TWDB is planning to set aside roughly $10.5 million, of the regular/base allocation, and $18.7 million of the supplemental IIJA funds, for TCEQ and TWDB set-asides. Together this comes out to $29 million in set-asides for both the regular/base allocations and the IIJA supplemental appropriations, or roughly 14% of the total additional subsidization for SFY 2024. (See **Figure 6**, below).

Figure 6: Allocation of Additional Subsidization [18]

		Regular/Base Appropriations	Wyoming Re-allotment of FFY 2021	Regular/Base Appropriations /Re-allotment		IIJA's Supplemental Appropriations		Total for IUP
Drinking Water SRF SFY 2024		$39,369,000	$812,000	$40,181,000	% of Grant	$167,867,000	% of Grant	$208,048,000
Minimum & Maximum - Principal Forgiveness								
Minimum (Disadvantaged Comm.)		$4,724,280	$97,440	$4,821,720	12%	$82,254,830	49%	$87,076,550
Minimum (Any DWSRF-eligible recipient)		$5,511,660	$113,680	$5,625,340	14%	$0	0%	$5,625,340
Minimum (Total)		**$10,235,940**	**$211,120**	**$10,447,060**	26%	**$82,254,830**	49%	**$92,701,890**
Optional Additional Amount for Disadvan. Comm.		$9,054,870	$186,760	$9,241,630	23%	0%	0%	$9,241,630
Maximum		$19,290,810	$397,880	$19,688,690	49%	$82,254,830	49%	$101,943,520
Current Allocation of Principal Forgiveness								
	Eligibility							
Disadvantaged Community:	Disadv.	$4,000,000	$112,000	$4,112,000	10.2%	$55,000,000	33%	$59,112,000
Disadvantaged Community-Small / Rural only:	Disadv.	$2,000,000	$100,000	$2,100,000	5.2%	$18,654,830	11%	$20,754,830
Subsidized Green:	All	$3,600,000	$0	$3,600,000	9.0%	$0	0%	$3,600,000
Very Small Systems:	Disadv.	$0	$0	$0	0.0%	$5,600,000	3%	$5,600,000
Urgent Need:	All	$1,500,000	$0	$1,500,000	3.7%	$0	0%	$1,500,000
	Disadv.	$1,500,000	$0	$1,500,000	3.7%	$3,000,000	2%	$4,500,000
Total Currently Allocated		**$12,600,000**	**$212,000**	**$12,812,000**	31.9%	**$82,254,830**	49%	**$95,066,830**
Additional amount of grant that could be allocated to principal forgiveness		*$6,690,810*	*$185,880*	*$6,876,690*	*17%*	*$0*	*0%*	*$6,876,690*
Total Breakdown								
Total Principal Forgiveness Allocated to Projects		$12,600,000	$212,000	$12,812,000	32%	$82,254,830	49%	$95,066,830
TWDB Admin. Set-aside (incl. Project Manag. System)		$1,574,760	$32,480	$1,607,240	4%	$6,714,680	4%	$8,321,920
Set-asides - TCEQ		$8,824,280	$97,440	$8,921,720	22%	$7,000,000	4%	$15,921,720
Set-asides, including capacity development		$0	$0	$0	0%	$5,000,000	3%	$5,000,000
Loans/Bonds		$16,369,960	$470,080	$16,840,040	42%	$66,897,490	40%	$83,737,530
Total		**$39,369,000**	**$812,000**	**$40,181,000**	100%	**$167,867,000**	100%	**$208,048,000**

This total is significantly lower than the national average of 22% in set-aside use analyzed from 2017-2020, and lower than Texas's use of set-asides during that same period (see **Figure 7**, below).

Figure 7: Local assistance and other state programs set-asides, shown as percent of capitalization grant[23]

State	2017 (%)	2018 (%)	2019 (%)	2020 (%)	Average (%)
Alabama	4.0	4.0	11.8	8.7	**7.1**
Idaho	31.0	31.9*	31.0	31.0	**31.2***
Maryland	27.0	26.8	31.0	27.0	**28.0**
Massachusetts	31.0	31.0	24.6	31.0	**29.4**
Nebraska	17.5	21.0	19.3	17.0	**18.7**
Texas	19.0	19.0	18.1	18.1	**18.6**
Wisconsin	29.1	27.6	25.1	27.3	**27.3**
National average	**20.8**	**23.1**	**22.9**	**21.1**	**22.0**
Maximum*	**31.0**	**31.0**	**31.0**	**31.0**	**31.0**

Notes: Green cell = Percentage awarded for set-asides was at or above the national average. Yellow cell = Percentage awarded for set-asides was greater than one-quarter of the maximum allowed percentage and below the national average. Red cell = Percentage awarded for set-asides was less than or equal to one-quarter of the maximum allowed percentage. Appendix D includes a version of this table that uses symbols, rather than color, to convey the information above.

Source: OIG analysis of EPA data. (EPA OIG table)

* A state DWSRF program may use the highest of three options for the administration and technical assistance set-aside: $400,000; 4 percent of a capitalization grant; or one-fifth of one percent of the current value of its fund. This may result in a total percent of the capitalization grant that exceeds the 31 percent maximum listed in this table.

Texas regularly utilizes the 4% set-aside for administration and technical assistance which exceeds the national average of 3.6% to cover the reasonable costs of administering the DWSRF program and to provide technical assistance to public water systems,[20] (see **Table 6**, below). Texas also routinely utilizes the 2% set-aside to provide technical assistance to small systems, those serving 10,000 or fewer persons, including activities such as supporting a state technical assistance team or contracting with outside technical assistance organizations—exceeding the national average of 1.7%.[21] Further, we maximize the 10% capitalization grant set aside for state program management activities such as administering the state public water system supervision program; administering or providing technical assistance through source water protection programs; and developing and implementing a capacity development strategy and an operator certification program.[22]

Figure 8: State set-asides shown as percent of capitalization grant, per state fiscal year[19]

State	2017 (%)	2018 (%)	2019 (%)	2020 (%)	Average (%)
Alabama	0.0	0.0	0.5	0.1	0.2
Idaho	15.0	15.0	15.0	15.0	15.0
Maryland	15.0	14.8	15.0	15.0	14.9
Massachusetts	15.0	15.0	15.0	15.0	15.0
Nebraska	5.1	9.0	6.2	7.0	6.8
Texas	3.0	3.0	2.1	2.1	2.6
Wisconsin	11.7	11.8	8.5	10.4	10.6
National average	7.5	8.2	8.0	7.5	7.8
Maximum	15.0	15.0	15.0	15.0	15.0

Notes: Green cell = Percentage took as set-aside was at or above the national average. Yellow cell = Percentage took as set-aside was greater than one-quarter of the maximum set-aside, but below the national average. Red cell = Percentage took as set-aside was less than one-quarter of the maximum set-aside. Appendix D includes a version of this table that uses symbols, rather than color, to convey the information above.

Source: OIG analysis of EPA data. (EPA OIG table)

However, where Texas misses the mark is in the utilization of local assistance and other state programs set aside. While the national average for this set-aside program is 7.8% with a maximum of 15%, Texas only utilizes 2.6% of the capitalization grants for local assistance.[24] Authorized uses of this set-aside include source water protection activities, wellhead protection measures, technical or financial assistance for capacity development, and can even be used as direct financial assistance to water systems with a maximum of 10% out of the 15% set-aside funds spent on any single effort.[25]

Examples of activities include:

- Helping communities to develop and implement asset management plans;
- Providing grants to systems considering regionalization or consolidation; and
- Providing loans for the implementation of source water quality protection efforts.[26]

Because these activities are all needed across communities in Texas, we recommend increasing the amount of DWSRF set-aside funds under the local assistance and other state programs to increase outreach to disadvantaged communities for capacity development. These set-asides should be used to inform any changes to the Technical Assistance programs in order to increase projects in historically disinvested areas.

4B: Utilize the 2% Technical Assistance Set-Aside Under the CWSRF

Two percent of funds are eligible to be used under the CWSRF for technical assistance. According to the EPA, these funds are meant to "enhance or build programs that proactively identify, reach out to, and provide assistance to rural, small, and tribal publicly owned treatment works and drinking water systems, particularly in disadvantaged communities."[27] Further, "the programs should be designed to help disadvantaged communities identify needs, develop projects, apply for funding, design and implement projects, build capacity, and create training and career pathways."[28]
Currently, the TWDB has not utilized the 2% set-aside for Technical Assistance under the CWSRF. However, much can be done with the technical assistance funds to ensure that disadvantaged communities are identified and given the tools necessary to receive funding. Therefore, we recommend that the TWDB allocate the full 2% of funds available to be set aside for Technical Assistance under the CWSRF.

4C: Provide Technical Assistance for Workforce Development

As noted in **Recommendation 3(c)** above, there are many workforce challenges facing the water and sewer system providers. Many water utility workers are expected to retire, creating the need to attract and retain new workers. The Bureau of Labor Statistics estimated that 8.2% of existing water operators will need to be replaced annually between 2016 and 2026.[29] To help address this issue, the TWDB should consider creating a technical assistance program to partner with technical assistance providers and professional organizations to develop new strategies and initiatives to avoid the potential crisis of a diminishing workforce. Among others, such set-aside funds could be used to support the following:

- **Community Benefits Agreements** – A Community Benefits Agreement (CBA) commits the developer to work with local CBOs and workforce development agencies to create opportunities for local workers, mitigate environmental and public health harm, and otherwise positively contribute to the local community[30];
- **Community-Based Public-Private Partnerships** – A Community-Based Public-Private Partnership (CBP3) involves a partnership between the public and private sectors to deliver infrastructure while prioritizing community-based benefits, aimed at generating superior results in terms of speed, efficiency, cost-effectiveness, and equity[31];
- **Establishing an Equitable Workforce Development Advisory Groups** – Community-Based Organizations (CBOs) and other nonprofits play a crucial role in advocating for improved workforce development policies and programs. Creating an advisory group to facilitate regular dialogue between water utilities and local CBOs and nonprofits focused on workforce development can foster a shared understanding of workforce development issues, challenges, goals, and opportunities. This collaboration can lead to impactful workforce development initiatives within the sector[32];
- **Facilitating Regional Collaboration** – States could use set-aside funds to support regional roundtables convening relevant drinking water utility staff, community stakeholders, and elected officials, together with local water infrastructure contractors and workforce development agencies to ascertain the readiness and capacity needs of area contractors.[33]

More information on the use of set-asides for these activities can be found in the Environmental Policy and Innovation Center's Report, *How State Revolving Fund Policies Can Support Equitable Water Workforce Development.*

4D: Develop a Workplan for TA Assistance and include Metrics for Assessing the Impact of TA Provided

In addition to improving the technical assistance programs, we recommend developing a workplan for technical assistance. Among other items, a technical assistance workplan would provide more detail on TA programs, eligibility, and how to access TA. A workplan could also include metrics for assessing the impact of TA and provide a report on the successes of the TA programs. In addition to providing more clarity to communities seeking assistance, developing a workplan in this manner would allow stakeholders to better understand the TA landscape and help identify potential gaps.

Recommendation 5: Program Accessibility and Transparency

Enhancing the accessibility and transparency of state programs, particularly those related to public resources like the Drinking Water State Revolving Fund (DWSRF), is crucial for fostering public trust and engagement. Transparent operations enable citizens to understand how decisions are made and funds are allocated, promoting accountability and ensuring that the program effectively addresses the community's needs. Accessible state programs encourage wider participation, allowing diverse perspectives to shape policies and actions, ultimately leading to more equitable and effective solutions for all stakeholders. In addition, increasing program accessibility and transparency can help provide greater guidance to eligible applicants. Therefore, to increase the accessibility and transparency of the DWSRF and CWSRF programs, we encourage the following changes.

5A: Track Project Withdrawals and Project Bypassing

As **Figure 9** below shows, it is very common for lower ranking projects to bypass higher ranking projects. For the DWSRF, despite only eight entities receiving funding from the 2021 IUP year, the highest ranking project was ranked 34th. This means that 27 higher ranking projects than Tom Green Co. did not receive funding by the time the Annual Report was published. Similarly for the CWSRF, 21 higher ranking projects than Daingerfield did not receive funding.

As highlighted in **Recommendation 3(a)**, it remains unclear why communities with higher AMHI are more likely to secure funding over others who applied but were not awarded. One critical factor affecting this outcome involves the "readiness to proceed" hurdles, which disproportionately impact low-capacity communities at various stages. Firstly, these communities often struggle with assembling an SRF application, a foundational step for funding consideration. Additionally, their ability to satisfy the "ready to proceed" requirements for inclusion on the IUP funding list is frequently inadequate. This assessment is pivotal as it determines eligibility for designated SRF awards. Lastly, even if these communities are listed in the IUP, they may still fail to finalize an award due to not meeting further "ready to proceed" criteria evaluated after the IUP phase. These stages collectively highlight the systemic barriers that prevent low-capacity

Figure 9: List of ranked projects that received funding under DWSRF[34] and CWSRF[35] by the 2022 Annual Report

DWSRF SFY 2021 Ranking of Funded Projects				**CWSRF SFY 2021 Ranking of Funded Projects**			
Rank	**IUP Year**	**Annual Report Year**	**Entity Name**	**Rank**	**IUP Year**	**Annual Report Year**	**Entity Name**
3	2021	2022	Barksdale WSC	15	2021	2022	Breckenridge
10	2021	2022	Comanche	5	2021	2022	Comanche
17	2021	2022	Ellinger Sewer and Water SC	1	2021	2022	Corpus Christi
21	2021	2022	Meeker	7	2021	2022	Cranfills Gap
25	2021	2022	Breckenridge	28	2021	2022	Daingerfield
30	2021	2022	Daingerfield	3	2021	2022	Mart
31	2021	2022	Crockett	20	2021	2022	North Texas MWD
34	2021	2022	Tom Green Co	19	2021	2022	Roma
				26	2021	2022	Shenandoah

communities from advancing through the funding process, despite the potential for eligibility based on other factors such as principal forgiveness eligibility, meeting green project reserve standards, or addressing the needs of DACs. We, therefore, recommend documenting a community's decision to withdraw project applications or the TWDB's decision to bypass a higher ranking project and providing this information in the annual report to better understand how to target TA to communities. One example of a state that does this is Arkansas, which states in its IUP, "If a situation develops which causes the state to bypass a project that is ready to proceed for another project, ADA-NRD will include an explanation in the annual report."[36] By asking communities or the Board why they decide to withdraw or bypass a particular application, the state will be able to better understand why certain communities are more likely to receive funding than others. Further, this will provide eligible applicants and stakeholders with important accessibility information.

5B: Provide Planning Loans to High-Ranking Projects that Are Not Ready to Proceed

Related to the recommendation above, it is important to ensure that all high-ranking projects have the ability to get their projects funded. In other words, worthy projects for underserved communities should not risk losing an opportunity to get funding due to a lack of capacity to meet arduous ready-to-proceed criteria such as engineering, environmental impact, or financial reports. Offering short-term, low or zero interest planning loans is a strategy employed by SRF programs in several other states to help communities procure the expertise and other resources needed to meet these requirements. Any project at risk of being bypassed by a lower ranking project should be offered a planning loan, which would allow them to become ready to proceed in time for a subsequent funding cycle. The planning loan can then be rolled into the construction loan when it is finalized.

5C: Clarifications on Green Projects

Under both the DWSRF and CWSRF project lists, the only green project type applicants submitted were business case projects. However, looking at these projects, many seem like categorical green projects and we are unsure why these projects are listed as business case projects. For example, PIF #14888 Ericksdahl WSC proposes "water meter replacement with an automatic meter reading system and installation of automatic flush valves."[37] These items qualify as green elements under the categorical projects section of the Green Project Reserve Guidance TWDB-1061. Therefore we are unsure why this is listed as a business case green type and additional clarification on when a project qualifies for different green types would be helpful. Tracking the type of green project applicants are applying for can help determine if there are any gaps in project types where applicants could benefit from assistance.

5D: Extend Public Comment Period

We strongly recommend increasing the public comment period. For the 2024 IUP, the public comment period was 14 days for both the DWSRF and CWSRF. Compounding this, both comment periods overlapped—meaning that hundreds of pages of IUP policy had to be digested and understood before writing comments. This provides advocates and stakeholders with little time to engage with the draft IUPs, let alone contact the TWDB with any questions that may provide clarity on the Board's draft policy choices. Therefore, to help increase stakeholder's ability to provide meaningful comments, we strongly recommend increasing the comment period to a minimum of 30 days to provide increased accessibility for stakeholders to provide public comment on the draft IUPs.

5E: Provide a Webinar on IUPs During the Comment Period

In addition to extending the public comment period, we also recommend providing a public facing webinar on the Draft IUP during the 30-day comment period. Although the TWDB periodically hosts webinars on the SRFs, offering a specialized webinar during the comment period would significantly broaden awareness about the SRF program and any potential adjustments to the IUP. We recommend that this webinar should be interactive, allowing participants to pose questions and receive immediate responses from TWDB representatives. This approach would not only facilitate a deeper understanding among various stakeholders but also stimulate greater involvement in the IUP process. It's worth noting that several states, including Wisconsin,38 have successfully adopted this strategy, providing valuable opportunities for public participation and feedback.

Notes

1 Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 (2021), available at: https://www.govinfo.gov/app/details/PLAW-117publ58.

2 White House, Fact Sheet: The Infrastructure Investment and Jobs Act Will Deliver for Texas, available at: https://www.whitehouse.gov/wp-content/uploads/2021/08/texas_infrastructure-investment-and-jobs-act-state-fact-sheet.pdf.

3 TWDB, DWSRF Set Aside Contract.

4 Wisconsin Department of Natural Resources, *State of Wisconsin, Safe Drinking Water Loan Program Intended Use Plan, SFY 2024*, available at: https://dnr.wisconsin.gov/sites/default/files/topic/Aid/loans/intendedUsePlan/SDWLP_SFY2024_IUP.pdf.

5 The entity's total HCF, which consists of the Income HCF (the percentage of annual household income that goes toward water, sewer, fees/surcharges, and project financing costs) combined with the Unemployment Rate HCF Adjustment ([Unemployment Rate – State Rate/State Rate] * 2) which is only used if a positive amount and may not exceed 0.75 percent) and the Population Decline HCF Adjustment ([(Prior Population - Current Population)/Prior Population] * 6.7 which is only used if a positive amount.

6 Alliance for Water Efficiency, *An Assessment of Water Affordability & Conservation Potential*, Houston, Texas (May 2023) available at: https://www.allianceforwaterefficiency.org/sites/default/files/assets/AWE_Houston%20Affordability%20Report%20-%20FINAL%20May%202023.pdf.

7 Nicholas Institute for Energy, Environment, and Sustainability, Water Affordability Dashboard. Available at: https://nicholasinstitute.duke.edu/water-affordability/water-affordability-dashboard/.

8 American Water Works Association, R. Raucher, PhD., J. Clements, E. Rothstein, J. Mastracchio, and Z. Green, "Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector" (April 17, 2019) available at: https://www.acwa-us.org/wp-content/uploads/2019/05/Developing-New-Framework-for-Affordability-Report-Final.pdf.

9 American Water Works Association, R. Raucher, PhD., J. Clements, E. Rothstein, J. Mastracchio, and Z. Green, "Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector."

10 American Water Works Association, R. Raucher, PhD., J. Clements, E. Rothstein, J. Mastracchio, and Z. Green, "Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector."

11 Id. at 3-23.

12 Id at 8.

13 Id. at 3-24.

14 EPA, EJScreen Map Descriptions, available at: https://www.epa.gov/ejscreen/ejscreen-map-descriptions#ejin.

15 https://www.sandiego.gov/sites/default/files/background_review_presentation_of_findings_final_compressed_5pollution.pdf.

16 https://capitol.texas.gov/billlookup/text.aspx?LegSess=82R&Bill=SB28

17 EPA, America's Water Sector Workforce Initiative: A Call to Action (2020), available at: https://www.epa.gov/sites/default/files/2020-11/documents/americas_water_sector_workforce_initative_final.pdf

18 Texas Water Development Board, *Drinking Water State Revolving Fund Intended Use Plan* - SFY 2024 (November 2023), pg. 10. Available at: https://www.twdb.texas.gov/financial/programs/DWSRF/doc/SFY2024/SFY2024-DWSRF-IUP.pdf.

19 Office of Inspector General, *The EPA Could Improve Its Review of Drinking Water State Revolving Fund Programs to Help States Assist Disadvantaged Communities* (July 11, 2023), pg. 14. Report No. 23-9-0022. Available at: https://www.epaoig.gov/sites/default/files/reports/2023-07/_epaoig_20230711_23-p-0022_2.pdf.

20 EPA, Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law (March 8, 2002) at 4, available at: https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf. EPA, at 31. Available at: https://www.epa.gov/system/files/documents/2023-07/_epaoig_20230711_23-P-0022_2.pdf.

21 Id. at 31.

22 Id. at 32.

23 Office of Inspector General, *The EPA Could Improve Its Review of Drinking Water State Revolving Fund Programs to Help States Assist Disadvantaged Communities* (July 11, 2023), pg. 31.

24 Id. at 32.

25 EPA, About the Drinking Water State Revolving Fund (DWSRF) Set-Asides, available at: https://www.epa.gov/dwcapacity/about-drinking-water-state-revolving-fund-dwsrf-set-asides#:~:text=The%20Local%20Assistance%20and%20Other,development%20and%20source%20water%20protection.

26 *Id.*

27 EPA, Radhika Fox, *Implementation of the Clean Water and Drinking Water State Revolving Fund Provisions of the Bipartisan Infrastructure Law* (March 8, 2022), available at: https://www.tn.gov/content/dam/tn/environment/water/drinking-water-unit/wr_wq_dw_epa-memo-bil-srf-implementation.pdf

28 Id.

29 Texas Water Resources Institute, https://twri.tamu.edu/publications/txh2o/2019/summer-2019/water-but-no-

workers/.

30 EPIC, available at: https://static1.squarespace.com/static/611cc20b78b5f677dad664ab/t/65524fa3f801814ab0a7811f/1699893156241/StateSRFOptions_v4.pdf.

31 Id.

32 Id.

33 Id.

34 Texas Water Development Board, Drinking Water State Revolving Fund SFY 2022 Annual Report.. Available at: https://www.twdb.texas.gov/publications/reports/administrative/doc/FY22-DWSRF-AnnualReport.pdf.

35 Texas Water Development Board, Clean Water State Revolving Fund SFY 2022 Annual Report. Available at: https://www.twdb.texas.gov/publications/reports/administrative/doc/FY22-CWSRF-AnnualReport.pdf.

36 Arkansas, Draft 2024 DWSRF IUP, at 9. Available at: https://www.agriculture.arkansas.gov/wp-content/uploads/00-AR-DWSRF-IUP-SFY-2024-Final-Draft-10-02-2023.pdf

37 Texas Water Development Board, *Drinking Water State Revolving Fund Intended Use Plan* - SFY 2024 (November 2023), pg. 125.

38 Wisconsin Department of Natural Resources, *State of Wisconsin, Safe Drinking Water Loan Program Intended Use Plan*, SFY 2024, available at: https://dnr.wisconsin.gov/sites/default/files/topic/Aid/loans/intendedUsePlan/SDWLP_SFY2024_IUP.pdf.

PolicyLink

Lifting Up What Works®

Headquarters
1438 Webster Street
Suite 303
Oakland, CA 94612
t (510) 663-2333

policylink.org
Facebook: /PolicyLink
Twitter: @policylink
Instagram: @policylink