

SAFER Needs Assessment 2021 | Frequently Asked Questions

1. What is the SAFER Program?

In 2019 California enacted Senate Bill 200 (SB200), establishing the \$130 million per year Safe and Affordable Drinking Water Fund. In conjunction with SB200, the State Board created the Safe and Affordable for Equity and Resilience (SAFER) Program to advance the Human Right to Water (HR2W). The SAFER program encompasses regulatory, funding, and public engagement strategies to work toward long-term solutions for Californians without access to safe drinking water.

2. What is the SAFER Drinking Water Needs Assessment, and why is it needed?

Approximately one million Californians do not have access to safe drinking water. The SAFER Drinking Water Needs Assessment (Needs Assessment) which was originally created through the 2018 Budget Act, gives us the first-ever comprehensive look at California water systems that are struggling to provide safe drinking water to communities and how to help them, with a focus on the state's smaller water systems and domestic wells. It follows California's leadership in adopting the first Human Right to Water policy in the nation and includes data that can inform how the Water Board can utilize SAFER funds and resources and leverage other sources of funding and resources. This is the first in-depth study of this issue. As the federal government focuses on infrastructure improvements, this assessment sheds light on one of California's most critical needs.

3. What role does the Needs Assessment play in developing solutions?

SB 200 also requires an annual Safe and Affordable Drinking Water Fund Expenditure Plan, which prioritizes projects for funding and documents past and planned expenditures. The Needs Assessment will inform how the State Water Board prioritizes SAFER funds and resources in the Fund Expenditure Plan coming this summer. This statewide analysis is not intended to inform specific funding decisions, nor local decisions, for drinking water system solutions.

4. Where can I access the report?

You can find the report on the [Water Board website](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/needs/2021_needs_assessment.pdf):

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/needs/2021_needs_assessment.pdf

5. What kinds of data are included in the Needs Assessment?

The Needs Assessment does three things: (1) identifies California communities that are at failing and identified small water systems (3,300 connection or less)

and domestic wells that are at risk of failing (provides early warning to systems and consumers) to sustainably provide a sufficient amount of safe and affordable drinking water; (2) estimates the cost of interim and long-term solutions for these communities; and (3) determines the statewide funding gap and affordability challenges that may be barriers to implementing solutions for this subset of California water systems and domestic wells. It is important to note that this assessment does not generally focus on larger systems which are encompassed in the [U.S. EPA's Drinking Water Needs Survey and Assessment](https://www.epa.gov/dwsrf/epas-6th-drinking-water-infrastructure-needs-survey-and-assessment):
<https://www.epa.gov/dwsrf/epas-6th-drinking-water-infrastructure-needs-survey-and-assessment>

6. What is the Cost Assessment?

The purpose of the Cost Assessment is to estimate the costs of solutions for both HR2W and At-Risk drinking water systems. These estimated costs will then help to inform spending proposals in each year's Fund Expenditure Plan. The Cost Assessment determines the costs of implementing interim/emergency measures and longer-term solutions for systems on the HR2W systems and At-Risk systems (<3,300 connections) and domestic wells. The Cost Assessment evaluates potential solutions such as: physical consolidations, treatment facility additions or upgrades, and/or point-of-use/point-of-entry treatment. The Cost Assessment focuses on one- and five-year cost estimates. Estimates were limited to five years from the present day due to uncertainty in costs and regulatory requirements beyond that timeframe. Estimated capital costs for current HR2W list and At-Risk systems (not including operations and maintenance costs) are presented in the following table:

System Type	# of Systems	Total Capital Cost Range Total
HR2W	305	\$887 M - \$3,550 M
At-Risk PWS	630	\$819 M - \$3,280 M
At-Risk SSWS	445	\$27 M - \$106 M
At-Risk Domestic Wells	62,607	\$548 M - \$2,190 M
TOTAL:		\$2,280 M - \$9,120 M

7. What assumptions were made when assessing gaps in funding?

The Cost Assessment assumes that a portion of the estimated costs would not be eligible for State Water Board grants and would be paid by water systems, their ratepayers, and/or domestic well owners. These costs are referred to as "local cost share" and include non-grant eligible capital needs, interest payments, and long-term and interim operations and maintenance (O&M). The Cost

Assessment also identifies available funding sources and funding gaps that may exist to support these needs. The gap analysis evaluated both the gap in available statewide grant dollars and the gap in statewide financing dollars (e.g., loan dollars). The five-year estimates are based on theoretical disbursements of funds. Given the complexities in funding agreements and funding disbursements, the yearly allocation and commitment estimates in the Gap Analysis will not exactly match actual project funding and financing patterns. It should further be noted that there is another \$2.95 billion in costs for communities that are not eligible under existing drinking water funds available through the State Water Board, these are in addition to the gaps outlined below. There may be other funding sources that can help to address parts of this additional gap. The following two tables provide funding needs and existing drinking water funding gap results:

Funding Programs	5-Year Estimate		
	Grant Funds Availability	Grant Eligible Needs	Grant Funding Gap
All Grant Funds for All Refined Cost Estimates	\$1,200 M	\$3,250 M	\$2,050 M

Total Local Cost Share Needs	5-Year Estimate		
	Local Cost Share SWB Loan Eligible	SWB Loan Capacity	Financing Gap
\$5,040 M	\$4,050 M	\$1,500 M	\$2,550 M

8. What is included in the cost estimate and funding gap analysis for tribal water systems?

The Cost Assessment methodology for tribal water systems generally followed the statewide methodology, with some necessary modifications. Results are included in the following table. Drinking water solution costs for federally recognized tribes were not included in the Cost Assessment’s Gap Analysis for the 2021 Needs Assessment because tribal water systems are eligible for federal funding sources that are not currently captured in the gap analysis.

System Type	Total Systems Analyzed	Estimated Costs
Tribal HR2W Equivalent	13	\$43.5 M
Tribal At-Risk Equivalent	22	\$54.8 M
TOTAL:		\$98.3 M

9. What is Drinking Water Affordability?

The Affordability Assessment identifies community water systems that have customer charges that exceed an “Affordability Threshold.” The figure below illustrates the nexus of affordability definitions that exist are used to inform the Affordability Assessment.



1) Household Affordability: The ability of individual households to pay for an adequate supply of safe water

2) Community Affordability: The ability of households within a community to pay for water services to financially support a resilient water system

(3) & (4) Water System Financial Capacity: The ability of the water system to financially meet current and future operations and infrastructure needs to deliver safe drinking water. The financial capacity of water systems affects future rate impacts on households. The inability to provide adequate services may lead households served by the system to rely on expensive alternatives, such as bottled water

10. What is the Affordability Assessment?

The Affordability Assessment identifies community water systems that have customer charges that exceed an “Affordability Threshold.” The affordability threshold and a list of systems that exceed the threshold is a required element in the Fund Expenditure Plan. This year, the State Water Board developed three initial affordability indicators from readily available data to identify disadvantaged communities that may be experiencing drinking water affordability challenges:

- **% Median Household Income:** Average residential customer charges for 6 hundred cubic feet per month meet or exceed 1.5% of the annual Median Household Income within a water system’s service area
- **Extreme Water Bill:** Customer charges that meet or exceed 150% and 200% of statewide average drinking water customer charges at the 6 hundred cubic feet level
- **% Shut-Offs:** 10% or more of a water system’s residential customer base experienced service shut-offs due to non-payment in 2019

11. How many California water systems are failing or at risk of failing?

There are approximately 345 systems on the Human Right to Water (HR2W) list. In addition, the Risk Assessment identified 617 At-Risk public water systems and 611 At-Risk state small water systems. The Risk Assessment also identified approximately 80,000 At-Risk domestic wells.

12. Where can I find which systems are on the HR2W list?

The State Water Board assesses water systems that fail to meet the goals of the HR2W criteria and maintains a list and map of these systems on its [website](https://www.waterboards.ca.gov/safer/safer_data.html): https://www.waterboards.ca.gov/safer/safer_data.html

13. Why are there more systems on the HR2W list than there were last year?

The criteria for the list were expanded in April 2021. This change resulted in approximately 29 systems being added to this list of consistently failing systems. This change was necessary to ensure that broader issues (e.g., unresolved E. Coli violations, treatment technique violations, and extensive monitoring and reporting violations) were being addressed in addition to chemical violations.

Additionally, each year, approximately 45 new water systems are added to the HR2W list, but the overall number of HR2W systems is fairly constant because as some come into compliance, others begin to fail. This demonstrates that to truly make statewide progress, identifying and supporting at-risk systems before they fail is critical. The SAFER Program is designed to proactively meet the needs of water systems to reduce this number.

14. Are all California water systems included in the Risk Assessment?

No. The Risk Assessment identifies public water systems (with a focus on systems with 3,300 or fewer service connections), tribal water systems, state

small water systems, and regions where domestic wells consistently fail or are at risk of failing to provide adequate safe drinking water.

15. Why does the Needs Assessment focus on small water systems?

About 90% of drinking water quality violations occur in systems with fewer than 500 connections, so this data allows us to uncover and address the underlying issues in small water systems before they become big problems. There are still a lot of data gaps for at-risk systems, so we are working to fill these gaps. Over the next several years efforts to improve data quality will be undertaken through a publicly vetted process.

16. Are tribal water systems included in the Needs Assessment?

Yes. Tribal water systems that are not federally recognized (i.e., those regulated by the state) are included in the Needs Assessment. However, an alternative approach was used to assess federally recognized tribal water systems. The Needs Assessment identified 13 federally recognized tribal water systems that failed to meet the goals of the HR2W and 22 At-Risk equivalent tribal water systems. It was necessary to approximate tribal equivalents for HR2W list and At-Risk water systems to ensure tribal systems were included in the prioritization of SAFER funding and technical assistance. Outreach to tribal water systems is planned for 2021 with a focus on informing tribal leaders of the purpose of the SAFER Program and providing information on the benefits of sharing information and data so that tribal water systems may be better integrated in future risk assessments.

17. How much will it cost to implement solutions for failing and at-risk water systems and domestic wells?

The Needs Assessment estimated the total cost of implementing interim and long-term solutions, for the projected number of water systems and domestic wells that need assistance within the next 5-years is approximately \$10.25 billion. This includes costs that are eligible for grants and loans, as well as costs that are not typically eligible for grants and loans (i.e. loan interest payments and O&M costs). Additionally, the Needs Assessment identified a funding and financing gap of \$4.7 billion in existing drinking water programs. There is another \$3 billion in costs that are not eligible under existing drinking water programs administered by the State Water Board. Some of these needs, however, may potentially be met by other non-State Water Board funding programs.

18. How much funding and financing is needed to bring water systems that are failing and at risk of failing into compliance with drinking water standards?

Of the estimated total cost of implementing interim and long-term solutions, the Needs Assessment identified \$3.3 billion in grant-eligible funding needs and another \$4 billion in loan-eligible funding needs. Some of these funding needs may be met with State Water Board funding programs. However, the Needs

Assessment identified a funding and financing gap of \$4.6 billion. Some of these needs, however, may potentially be met by other non-State Water Board funding programs.

19. Isn't there already funding through SB 200 and other sources to address the problem?

The Needs Assessment estimates \$2.7 billion in State Water Board funding availability over the next 5 years. However, an additional estimated \$2 billion in grant funding and \$2.6 billion in loan funding would be needed to close the estimated funding gaps for the subset of California water systems and domestic wells analyzed in the Needs Assessment. The five-year estimates are based on theoretical disbursements of funds. Given the complexities in funding agreements and funding disbursements, the yearly allocation and commitment estimates in the Gap Analysis will not exactly match actual project funding and financing patterns.

20. Is there hope for helping these water systems return to compliance?

While the estimated funding gap is substantial, addressing it is realistic. In collaboration and coordination with Federal, local, and tribal government partners, as well as the private sector, the state can support solutions that cross jurisdictional and funding boundaries. Development of local and regional solutions will be key to addressing these issues.

21. What has the Water Board done over the last year to help these systems?

Forty water systems have been returned to compliance with drinking water quality standards since July 2020. With support from the State Water Board, 92% of systems on the HR2W list are actively working toward long-term solutions; approximately 40% of systems on the list are determining if it is feasible to consolidate with another water system as one of those solutions.

22. What role do water systems have in solving this issue?

To return systems to compliance, local communities must do the hard work of implementation. Water systems and communities may also need to coordinate with the State Water Board and other government and private entities to find additional funding to fill specific needs for any individual project. The amount of time and resources communities have directly influences the speed at which these problems can be solved.

23. Will drought conditions affect water systems' ability to become compliant?

For water systems already facing challenges, continued drought conditions will further threaten their ability to provide safe drinking water since lowering groundwater levels could reduce the available water supply and may further concentrate groundwater contaminants. Finding solutions for systems on the

HR2W and At-Risk lists will also improve their drought resiliency by ensuring long term sustainable drinking water solutions.

24. Who developed the methodologies for the Needs Assessment?

The State Water Board developed the methodologies for the Risk and Cost Assessments in partnership with the University of California, Los Angeles (UCLA) and their subcontractors, Corona Environmental Consulting, Pacific Institute and Sacramento State University Office of Water Programs and refined them with broad stakeholder input. The State Water Board developed the Affordability Assessment methodology. Since 2019, the State Water Board has hosted 14 public workshops to develop the Needs Assessment methodologies: two in-person and 12 webinars. Workshop recording, white paper, and presentations can be found on the State Water Board's [Needs Assessment webpage](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html): https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html

25. How will future iterations of the Affordability Assessment be refined?

The State Water Board recognizes the need to refine the affordability indicators used in the Affordability Assessment. New affordability indicators will be included in future assessments, while others, like percentage of shut-offs may be removed. The State Water Board will begin research and stakeholder engagement to develop a more refined Affordability Assessment and appropriate affordability thresholds in mid-2021.

26. How is the State Water Board improving the data in the Needs Assessment?

The State Water Board has already begun taking necessary steps to improve data coverage and accuracy for the Needs Assessment by improving data collection and validation through the Electronic Annual Report (EAR); developing strategies to capture more detailed funded project and technical assistance cost data; and hosting tools to improve the water system area boundaries dataset. A concerted effort will be made to begin collecting data related to water system Technical, Managerial and Financial (TMF) capacity, water source capacity, and domestic well location/water quality.