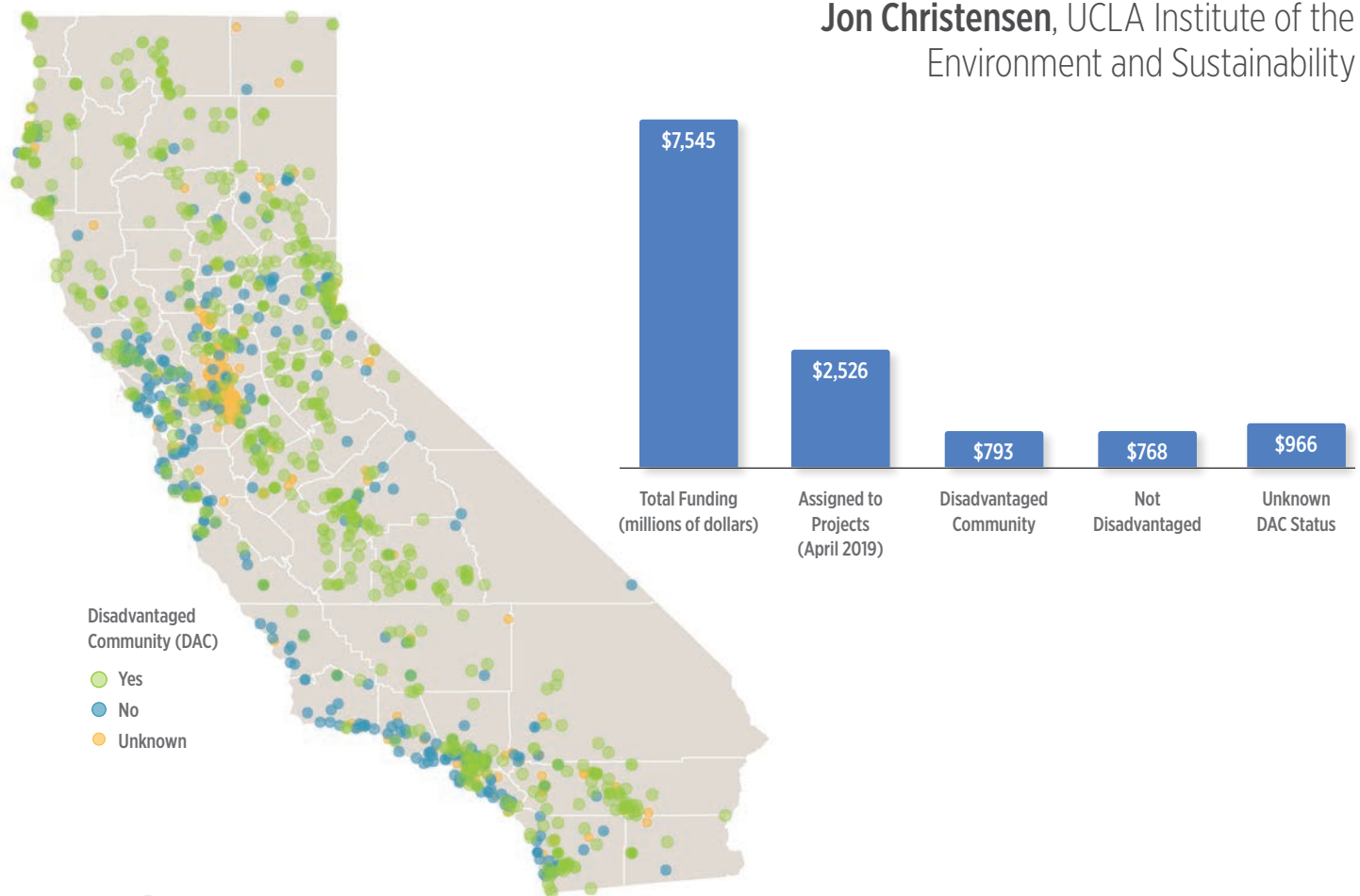


Striving for Equity in Public Investments in Water in California: An Analysis of Prop 1 Implementation

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Executive Summary

In 2014, California voters approved a \$7.5 billion bond measure to fund water quality, supply, and infrastructure improvements. Prop 1 included significant provisions to prioritize investments in disadvantaged communities.

For this report, looking at Prop 1 spending midstream, we analyzed the \$2.5 billion that had been assigned to projects as of April 2019 out of \$7 billion of the bond funding that has been committed so far through budget appropriations. We analyzed how much of that funding is going to projects benefiting disadvantaged communities and technical assistance efforts to increase the capacity of those communities to secure funds and manage projects. The executive summary of this report with our topline findings and recommendations below also serves as an index to the rest of the detailed report that follows.

Our topline findings and recommendations are:

- **Finding:** Prop 1 is proving to be a promising, deliberate, thoughtful approach for improving investments in water projects in communities that historically have not benefited from them. So far, implementation of Prop 1 is meeting or exceeding its stated goals for assigning funds to projects in disadvantaged communities—or DACs—where the median household income is 80% or less of the statewide median household income. These communities are home to 33% of the state's population. [See pages 7–8.](#)
- **Finding:** The equity goals in Prop 1 build upon provisions in Prop 84, a previous environmental bond measure. As proved true in the implementation of Prop 84, sections of Prop 1 that establish explicit goals for serving disadvantaged communities are doing better at serving those communities than sections that did not establish clear goals. [See pages 9–11.](#)
- **Recommendation:** Future environmental funding measures should continue to learn from these successes and refine implementation guidelines and processes to meet these goals. [See page 3.](#)



Residents of East Porterville lived with severe drinking water problems for years until a connection to the city of Porterville was finally made in 2016 with a \$35 million grant from Prop 1. Photo by Florence Low, California Department of Water Resources.

- **Finding:** Inclusion of technical assistance in Prop 1 has helped disadvantaged communities to participate in applying for funding by providing training, guidance, and hands-on assistance in preparing plans and applications. Technical assistance is being funded even in chapters of Prop 1 that did not explicitly call for it, further increasing capacity for communities, agencies, and organizations to develop projects serving disadvantaged communities. [See page 6.](#)
- **Recommendation:** This institutionalization of technical assistance should continue to expand in future environmental funding measures. [See page 3.](#)
- **Finding:** Fulfilling the human right to clean, safe, and reliable drinking water promised by law for all Californians will require additional funding beyond Prop 1. Indeed, the technical assistance programs funded by the bond have helped communities develop plans for several hundred drinking water and wastewater improvement projects that will require future funding to implement. [See page 6.](#)
- **Recommendation:** Our state will need to develop a steady stream of funding from bonds and other sources to fulfill the law's promise of a human right to water, as well as equitable access to other environmental benefits. [See page 3.](#)
- **Finding:** The pace of spending from Prop 1 is similar to other bonds. These investments take time, care, and patience especially in disadvantaged communities requiring technical assistance. [See pages 9–11.](#)
- **Recommendation:** With more than half of Prop 1 funds still remaining to be assigned to specific projects, there is still much work to be done to ensure that this potential is fully realized. [See page 4.](#)
- **Finding:** Although more than a million Californians still do not have access to clean, safe, and reliable drinking water, the state is making deliberate progress in fulfilling its commitment to a human right to water, which was reaffirmed in Prop 1, by prioritizing public investments in communities most in need of infrastructure improvements as well as access to other environmental benefits.
- **Recommendation:** We can do better. [See pages 3–4](#) for our full set of recommendations for improvements in Prop 1 implementation and future environmental funding measures.



Becky Quintana grew up in Seville, a small Tulare County community that has been plagued with water problems for years. Prop 1 has provided technical assistance for planning improvements in Seville that will require future funding to implement. Photo by Tara Lohan.

Recommendations for Future Environmental Funding Measures

- › Prop 1 funding for technical assistance and planning in disadvantaged communities is already creating a list of crucial projects that will require future funding. **California needs a narrative that justifies ongoing and often overlapping bond measures as well as other funding for water, environment, and climate resilience needs, particularly in disadvantaged communities.**
- › **It takes time to carefully allocate and spend bond funding, especially in disadvantaged communities that require technical assistance to access the funding. Californians need to understand and communicate the importance of taking this care and time.**
- › **Future bond funding for water and the environment should continue to incorporate specific priorities, goals, and technical assistance for disadvantaged communities.** Explicit goals for serving disadvantaged communities should be included in all sections of funding measures for water and the environment in the future unless there are specific reasons why those goals are not appropriate. Otherwise, the risk that these communities do not receive their fair share of environmental investments and benefits will persist, and historical inequities will endure.
- › **All funding measures should be required to track whether funding is serving disadvantaged communities and households.**
- › **California needs more nuanced metrics for measuring how different kinds of environmental investments benefit disadvantaged households and communities. This includes clarifying the beneficiaries of projects and will likely require the state to seek expert help in developing robust measures of success for serving disadvantaged populations across all project types.** Prop 1 requires “metrics of success” be reported for all projects, and its implementation provides an opportunity to develop robust metrics for measuring how disadvantaged populations are being served across a wide variety of project types now and in the future. In a significant number of cases, the state’s bond accountability database, from which we obtained data, indicates that it is unknown whether the communities served by projects are disadvantaged or not. This is understandable given current standards for defining disadvantaged communities and the fact that many water projects serve large geographic areas comprising diverse communities, some of which are disadvantaged and others not. Prop 1 funds a diverse array of projects that could help refine the way that project beneficiaries are defined for different types of projects. But the answer will not be the same for river restoration projects, stormwater management projects, flood control projects, clean water projects, and statewide water system improvements. It may not make sense to specify a percentage of funding for disadvantaged communities in every project type. Instead, counting disadvantaged households may make sense for some projects.



The Dutch Slough Tidal Marsh Restoration Project funded by Prop 1 is restoring 1,187 acres of tidal marsh to provide habitat for salmon and other native fish and wildlife. Although it is less than a mile from a disadvantaged community in Oakley, the state's bond accountability database indicates that it is unknown whether the project will benefit disadvantaged communities. Photo by Ken James, California Department of Water Resources.

Recommendations for Prop 1 Implementation

- **An increased focus on targeted technical assistance could help ensure more projects serving disadvantaged communities are awarded funds in areas where significant investments under Prop 1 remain to be decided.**
- **With more than half of Prop 1 funds still to be assigned to specific projects, the focus on communities most in need of investments in water quality, supply, and infrastructure must be maintained. Bringing an equity lens to statewide water system improvements and drought preparedness—where the bulk of the remaining funds, nearly \$2.6 billion, has yet to be assigned to specific projects—would be a major step forward.**
- **Publicly available accountability metrics must track the language in legislation and voter approved measures to be useful in measuring their success.** Working with comprehensive data from the state's bond accountability database to do an analysis like this entails a labor intensive data review process typical of work with any large dataset, and we applaud the state's efforts to continue to improve data reliability and accessibility, while encouraging continuing efforts to make this kind of timely, midstream analysis possible, since it can contribute to learning and course correction. We especially appreciate the inclusion of data about whether projects serve disadvantaged communities in every aspect of Prop 1, not just where it is required by the measure. Such metrics matter for focusing attention on areas of greatest need. Some sections of Prop 1, however, specifically prioritize "severely disadvantaged communities": where the median household income is 60% or less of the statewide median household income. Yet the state's bond accountability database does not contain data about whether projects serve severely disadvantaged communities. This should be corrected.



Leonicio Ramirez and Guillermina Avila were the first residents of East Porterville to receive water through a new connection to the city of Porterville funded by Prop 1. Photo by Florence Low, California Department of Water Resources.



The small community water system in the unincorporated Central Valley community of Woodville, a recipient of Prop 1 technical assistance, is one of hundreds in desperate need of improvements to ensure residents have reliable access to clean, safe drinking water. Photo by Tara Lohan.

How Are We Doing?

In 2012, California became the first state in the nation to guarantee the human right to water, with a law declaring that “every human being has the right to safe, clean, affordable, and accessible water.” Since then state funding for water projects has increasingly focused on delivering benefits to communities most in need of improvements in order to fulfill this promise, and more equitably providing other environmental benefits to communities that have not historically seen such investments.

Approximately 42% of California households are disadvantaged households, in which the household income is 80% or less of the statewide median household income. Disadvantaged communities—census areas where the median household income across the entire area is 80% or less of the statewide median household income—are home to 33% of the state’s population.

Prop 1 is so far meeting or exceeding the explicit goals for funding improvements in disadvantaged communities in each of the chapters that set such goals. And as of April 2019, 31% of the total \$2.8 billion assigned to projects is going to projects benefiting disadvantaged communities.

We Can Do Better

Even after Prop 1 is fully implemented California will still have a long way to go to fulfill its promise of a human right to water in the state. At \$7.5 billion, Prop 1 is not just a drop in the bucket. But state officials and experts estimate it is only a portion of the investment needed in the state’s water infrastructure in the coming decades, particularly when it comes to providing for clean, safe, and reliable drinking water for disadvantaged communities. Prop 1 has provided technical assistance and planning for safe drinking water projects and other projects that benefit disadvantaged communities, creating a growing list of projects that still need to be funded in order to ensure that more than 1 million Californians who currently do not have access to clean, safe and reliable drinking water have access to water.

Learning from the past, even the very recent past, and improving the implementation of public funding is crucial to ensure every Californian has the right to water in their daily lives guaranteed by the laws of our state. Creating funding streams, through future bonds and other sources, will also be crucial.

The Importance of Technical Assistance

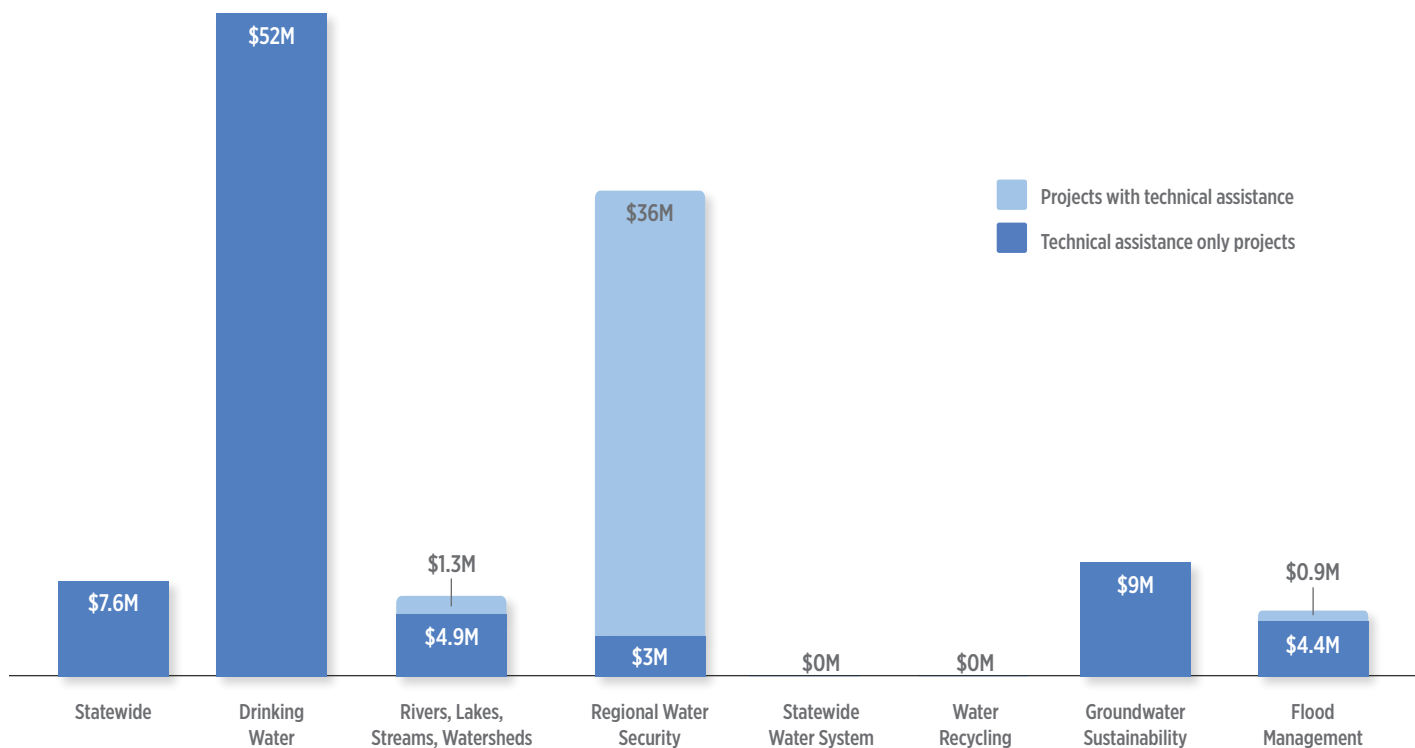
In recent years, the state of California has increasingly recognized that disadvantaged communities often need technical assistance to compete on a level playing field with more affluent communities for grants from statewide environmental bonds such as Prop 1. While many cities have environmental planning staffs with the expertise necessary to put together a proposal and plan for a project such as a drinking water treatment facility, a groundwater management plan, or a stormwater recharge project, smaller communities often do not have such resources. Technical assistance can bridge the gap.

Prop 1 specifically allocated up to \$78 million in funding for technical assistance to improve drinking water and wastewater systems. That funding was prioritized for disadvantaged communities depending on small community water systems serving up to 3,300 people. In the measure, technical assistance was also made available for water recycling and groundwater projects, and its use has since spread to other purposes including protecting watersheds and coastal waters, regional water security, climate, drought preparedness, and

flood management. As of April 2019, a total of \$119 million had been assigned to 123 projects that include technical assistance, with \$81 million going to 51 technical assistance projects, and \$38 million going to 72 projects in which technical assistance is one component.

In December 2018, the Department of Water Resources reported that 515 technical assistance requests had been approved under Prop 1 for 452 community water systems, with 415 of those requests for drinking water projects, 96 for wastewater projects, and three for stormwater projects. However, very few of those drinking water and wastewater projects will receive funding for implementation under Prop 1 because most of that funding has already been assigned to other projects atop of a long list of priority projects. This illustrates one of the major challenges of providing equitable investments to disadvantaged communities: Technical assistance, including community engagement in planning, takes time. Ongoing bond funding for capital projects will be necessary for communities that are only now, under Prop 1, able to adequately plan for the improvements they need.

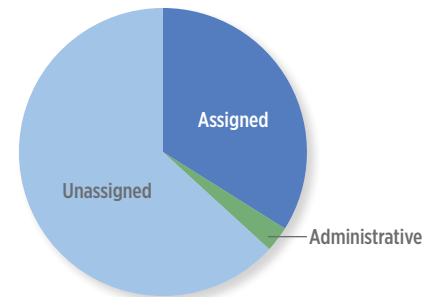
Technical Assistance Spending Under Prop 1 in Millions of Dollars



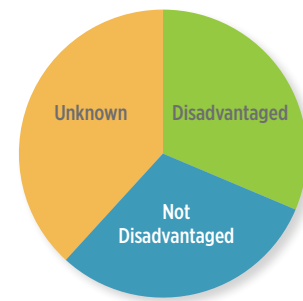
Key Findings

Analyzing Prop 1 funds assigned to projects so far, we found that implementation of the measure is meeting or exceeding the measure's goals for prioritizing disadvantaged communities.

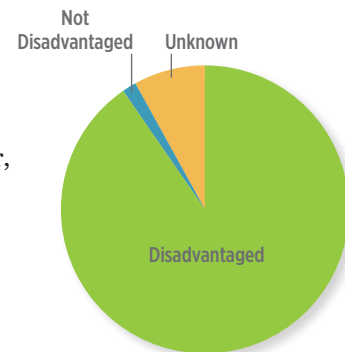
- **Bond Funds Assigned to Projects:** As of April 2019, when we accessed data from the state's bond accountability database, \$2.5 billion or 34% of the approved funds had been assigned to specific projects, 3% had been assigned for administrative costs, and 63% of the funds remained unassigned to specific projects, although some of those funds are earmarked for certain purposes and geographic areas, with specific projects still to be defined.



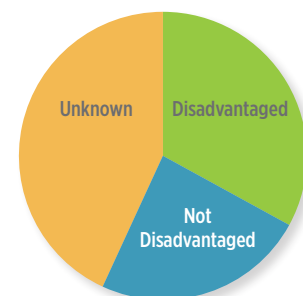
- **Spending in Disadvantaged Communities:** Although the measure did not set an explicit goal for overall spending in disadvantaged communities, of the \$2.5 billion assigned to projects so far, 31% is going to projects benefiting disadvantaged communities, 30% is going to projects benefiting communities that are not disadvantaged, and 39% is going to projects where it is unknown whether disadvantaged communities are benefiting.



- **Drinking Water Projects:** Funding for clean, safe and reliable drinking water, which explicitly prioritized disadvantaged communities, is, indeed, going to communities most in need. Of the \$431 million assigned to projects so far, \$389 million or 90% has gone to projects serving disadvantaged communities.



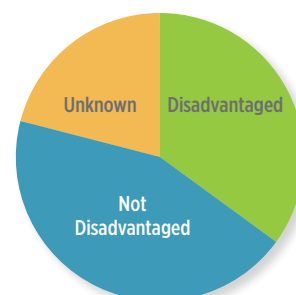
- **Water Security, Climate, and Drought:** Funding for regional water security, climate, and drought preparedness is exceeding the stated target of providing 10% for projects serving disadvantaged communities, with \$80 million or 33% of the \$241 million assigned so far going to projects serving such communities.



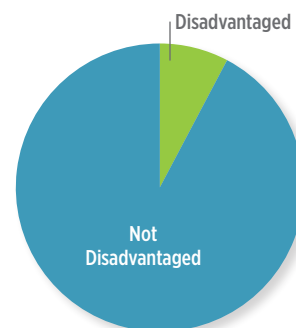


Drilling a groundwater monitoring well in Yolo County for the Sustainable Groundwater Management Program of the California Department of Water Resources. Photo by Florence Low, California Department of Water Resources.

➤ **Groundwater Projects:** Funding for groundwater sustainability projects appears to be exceeding the stated target of providing 10% for projects serving severely disadvantaged communities with \$82 million or 35% of the \$233 million assigned so far going to projects serving disadvantaged communities. However, we were unable to track how much of the funding is specifically going to projects serving severely disadvantaged communities because that data is not available in the state's bond accountability database.



➤ **Stormwater Management:** Multibenefit stormwater management projects funded by Prop 1 are required to address entire watersheds and incorporate the perspectives of communities adjacent to the watersheds, especially disadvantaged communities. But so far only \$15 million or 8% of the total \$200 million authorized for such projects has been assigned to projects serving disadvantaged communities.



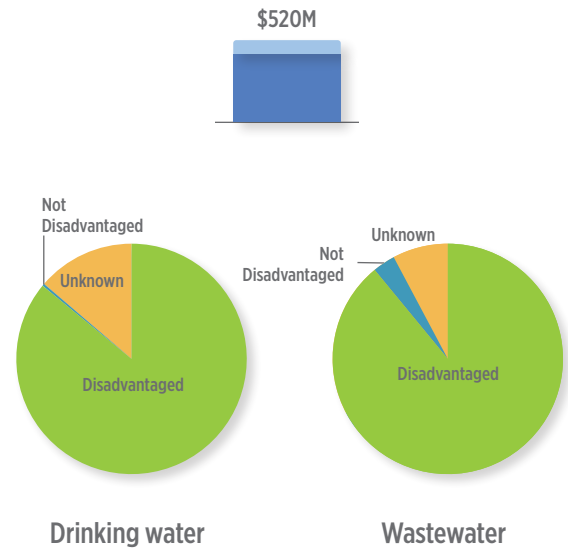
➤ **Technical Assistance:** There is funding available for technical assistance in several chapters in Prop 1. This funding totals up to \$78 million for drinking water and wastewater projects, with more if authorized by the state agency administering the funds, and an unspecified amount for water recycling and groundwater projects. Technical assistance is also being funded even in some chapters of Prop 1 that did not specifically call for technical assistance funding. So far, a total of \$119 million has been assigned to 123 projects that include technical assistance, with \$37 million going to 51 technical assistance projects, and \$38 million going to 72 projects in which technical assistance is one component. This spread of technical assistance to other parts of the measure is indicative of the increasing attention being paid to the need to develop technical capacity for projects serving disadvantaged communities.

Chapter 5. Clean, Safe and Reliable Drinking Water

Prop 1 authorized \$520 million for drinking water projects. As of April 2019, \$431 million or 83% has been assigned to projects, \$60 million remains unassigned, and \$26 million has been assigned for administrative purposes. At least 10% of the funds is required to be allocated to severely disadvantaged communities, and up to 15% is allocated for technical assistance to disadvantaged communities, and more if needed for additional funding of planning. So far, \$52 million or 10% of the total funds available has been assigned to 24 technical assistance projects.

Half of this chapter's funds, \$260 million, is available for grants and loans for public water system infrastructure improvements and related actions to meet safe drinking water standards, ensure affordable drinking water, or both. Prop 1 states that priority shall be given to projects that provide treatment for contamination or access to alternate drinking water sources for small community water systems in disadvantaged communities whose drinking water source is impaired by chemical and nitrate contaminants and other health hazards. So far, \$221 million or 89% of the funds assigned to projects is going to 155 projects serving disadvantaged communities.

The other \$260 million in this chapter is available for grants for wastewater treatment projects through the State Water Pollution Control Revolving Fund Small Community Grant Fund. Prop 1 states that priority shall be given to projects that serve disadvantaged communities and severely disadvantaged communities, and to projects that benefit public health. As of April 2019, \$168 million or 83% of the funds assigned to projects is going to 86 projects serving disadvantaged communities.



Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

Under this chapter, Prop 1 authorized \$1.5 billion for competitive grants for multi-benefit ecosystem and watershed protection and restoration projects. Most of this funding does not have a specific requirement for prioritizing disadvantaged communities. However, through April 2019, \$232 million or 25% of the \$932 million assigned to projects so far is going to serve disadvantaged communities, and \$4.9 million has been assigned to nine technical assistance projects, with another \$1.3 million going to five projects that included technical assistance.

One section of this chapter that does prioritize funding for disadvantaged communities authorized \$100 million to protect and enhance an urban creek. That funding has been directed to the Los Angeles River. Prop 1 states that 25% of those funds is required to go to projects that benefit disadvantaged communities, and up to 10% may be used for project planning. So far, \$16 million has been assigned to 10 projects in disadvantaged communities—representing 67% of the funds assigned to projects. Two conservancies administer those funds and each has developed its own guidelines that prioritize disadvantaged communities. This sets up an important opportunity for learning, so it will be important to measure, evaluate, and compare outcomes.



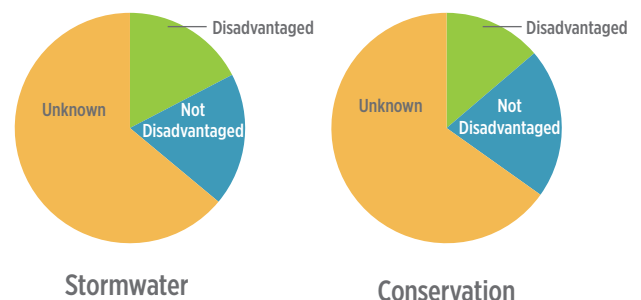
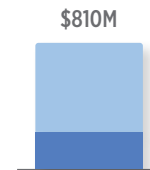
Chapter 7. Regional Water Security, Climate, and Drought Preparedness

This chapter made \$810 million available for projects that are included in integrated regional water management plans throughout the state. At least 10% of the funds must be assigned to projects that directly benefit disadvantaged communities. Through April 2019, \$241 million had been assigned to 179 projects, with \$80 million or 33% going to 109 projects that benefit disadvantaged communities, and \$39 million assigned to projects including technical assistance, \$3 million of that for one technical assistance project, and \$36 million for 66 projects that include technical assistance.

Multi-benefit stormwater management projects were allocated \$200 million under this chapter. Plans for these projects are required to address entire watersheds and incorporate the perspectives of communities adjacent to the watershed, especially disadvantaged communities. But so far, as of April 2019, only \$15 million or 8% has been assigned to 15 projects serving disadvantaged communities.

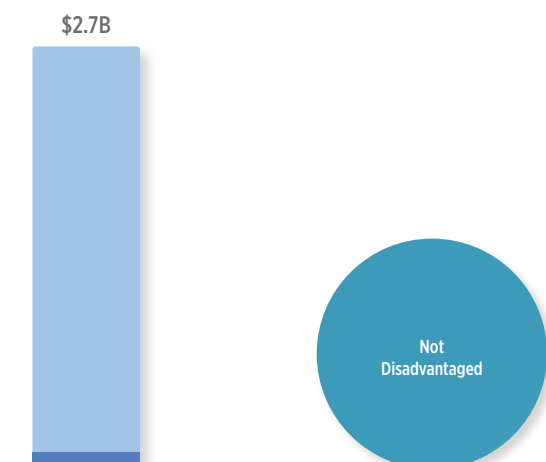
Another \$100 million in this chapter is dedicated to water conservation and efficiency plans, projects, and programs. Although there is no specific goal for disadvantaged communities in this section, \$10 million or 14% of the \$72 million assigned to projects has gone to 11 projects serving disadvantaged communities.

The bulk of the funding in Chapter 7, \$510 million, is divided among 12 hydrologic regions, with no less than 10% in each region required to be dedicated to ensuring involvement of disadvantaged communities, economically distressed areas, or underrepresented communities in integrated regional water management planning. So far, \$55 million has been assigned to 84 projects serving disadvantaged communities, mostly to engage disadvantaged communities in that process.



Chapter 8. Statewide Water System Operational Improvement and Drought Preparedness

Prop 1 made \$2.7 billion available for water storage projects to improve the operation of the state water system that serves 23 million Californians and 750,000 acres of agriculture, and provide a net improvement in ecosystem and water quality conditions. As of April 2019, only \$79 million of this funding had been assigned to projects. None of the funding is prioritized for disadvantaged communities, although the state water system directly and indirectly serves many disadvantaged communities, illustrating one of the major challenges of quantifying how some major water projects serve these communities.



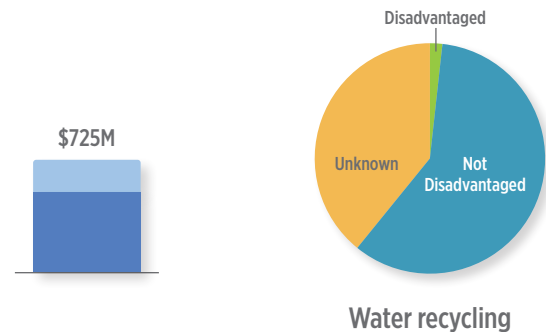
Chapter-by-Chapter Analysis

Assigned

Not Assigned

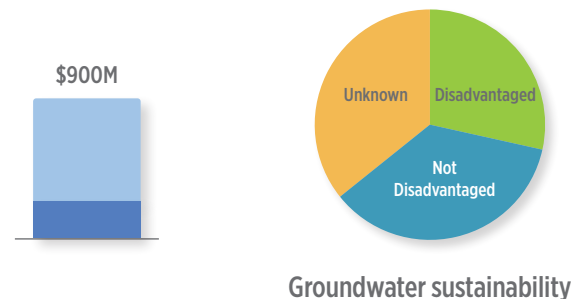
Chapter 9. Water Recycling

This chapter made \$725 million available for grants or loans for water recycling and advanced treatment technology projects, including technical assistance and grant writing assistance for disadvantaged communities. As of April 2019, \$518 million had been assigned to 70 projects with \$9 million or just over 2% for two projects benefiting disadvantaged communities, and no funds yet assigned for technical assistance.



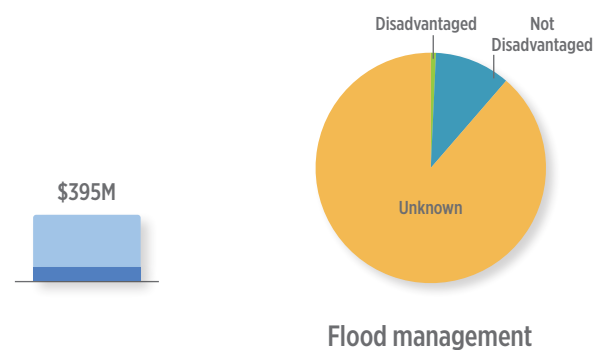
Chapter 10. Groundwater Sustainability

This chapter made \$900 million available for groundwater cleanup and sustainability projects, at least 10% of which must be allocated to projects serving severely disadvantaged communities, with funding including technical assistance for disadvantaged communities. The agency administering this funding is required to operate a multidisciplinary technical assistance program for small and disadvantaged communities. Through April 2019, \$233 million had been assigned to 126 projects, with \$82 million or 35% going to 64 projects benefiting disadvantaged communities, and \$9 million assigned to four technical assistance programs.



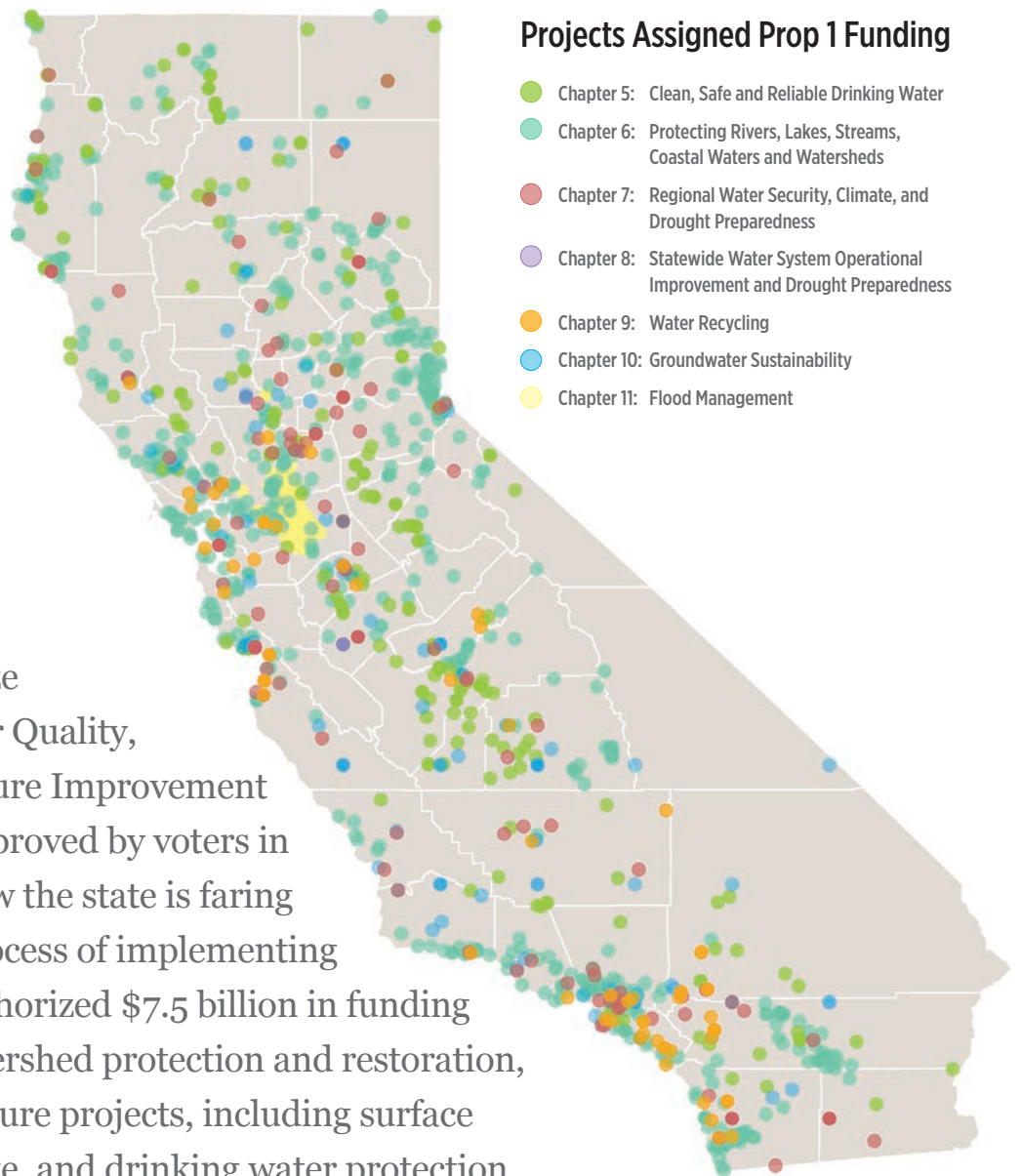
Chapter 11. Flood Management

This chapter allocated \$395 million for multi-benefit projects that enhance public safety and fish and wildlife habitat. This chapter had no provisions for disadvantaged communities. As of April 2019, \$85 million had been assigned to 90 projects, including \$618,030 or less than 1 percent for three projects serving disadvantaged communities, \$4 million for 12 technical assistance projects, and \$900,000 for one project that includes technical assistance. It should be noted that 89% of the funding so far has been assigned to projects where it is “unknown” whether the project serves disadvantaged communities, although flood control projects often benefit low-income residents and can provide environmental and recreational benefits.



Striving for Water Equity

In this report, we analyze Proposition 1, the Water Quality, Supply, and Infrastructure Improvement Act, a bond measure approved by voters in 2014, to understand how the state is faring midway through the process of implementing the measure. Prop 1 authorized \$7.5 billion in funding for ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection. We specifically examine efforts to serve disadvantaged communities most in need of these investments in California. By providing a snapshot at this point, this report is meant to inform further implementation of Prop 1 and provide useful recommendations for future environmental funding measures and implementation efforts.



This report was written by Jon Christensen, adjunct assistant professor at the Institute of the Environment and Sustainability at UCLA. The analysis was conducted by Christensen, with data wrangling, graphs, and maps by GreenInfo Network, under a grant from Resources Legacy Fund. For more information, contact Jon Christensen at jonchristensen@ioes.ucla.edu. This report is available online at <https://www.ioes.ucla.edu/project/prop1>. This report builds on a previous report entitled “Environmental Bonds Should Equitably Benefit All Communities: Looking Forward Based on an Analysis of Prop 84,” which is available at <https://www.ioes.ucla.edu/news/prop84>.