

EVALUATING EQUITY UNDER MEASURE W

Los Angeles County

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GLOSSARY

Term	Definition
CalEnviroScreen 4.0 "CES4"	a screening tool that evaluates the burden of pollution from multiple sources in communities while accounting for potential vulnerability to the adverse effects of pollution.
DAC	A "disadvantaged community." Established by the Safe Clean Water Program.
Disadvantaged Community (DAC) Benefit	Water Quality Benefit, Water Supply Benefit, and/or Community Investment Benefit located in a DAC or providing benefits directly to a DAC population.
Multi-Benefit Project	A project that has: (1) a Water Quality Benefit, and (2) a Water Supply Benefit or a Community Investment Benefit, or both.
Safe Clean Water Program "SCWP"	The program established by Measure W, responsible for the allocation and distribution of funds and projects among the Municipal, Regional, and District Programs.
Stormwater	Water that originates from atmospheric moisture (rainfall or snowmelt) and falls or flows onto land, water or other surfaces.
Stormwater Investment Plan "SIP"	A five (5) year plan developed by a Watershed Area Steering Committee that allocates funding for Projects and Programs.
Water Quality Benefit	A reduction in Stormwater or Urban Runoff pollution, such as improvements in the chemical, physical, and biological characteristics of Stormwater or Urban Runoff in the District.
Water Supply Benefit	An increase in the amount of locally available water supply, provided there is a nexus to Stormwater or Urban Runoff capture.
Watershed Area	The regional hydrologic boundaries as depicted on maps maintained by the District for the SCWP, that are established in consideration of topographic conditions and other factors. The SCWP includes nine Watershed Areas.



ABSTRACT

Inadequate stormwater infrastructure has detrimental effects. If not correctly handled, stormwater can cause localized flooding, unsanitary conditions, and increase pollutants such as trash, fertilizers, and other chemicals in waterways and soil. In addition, poor capture and handling of stormwater have significant consequences in regions experiencing drought, often causing reliance on external water sources. Our research focuses on Los Angeles County and their response to this issue. Measure W, also known as the Safe Clean Water Program, was passed by LA County in 2018 and created "a comprehensive, regional plan to address how we capture water and how we can reduce reliance on imported water" (SCWP, 2022). Our goal was to evaluate the transparency, legitimacy, and equity of projects funded and implemented through Measure W. To do so, we considered projects' conduciveness to community engagement, proposed anti-displacement measures, and implementation of nature-based solutions. Additionally, we assessed the equitable distribution of project funding based on various factors such as DAC designation and CalEnviroScreen 4.0. Our methodology comprised GIS tools such as ArcMap, QGIS, and ArcOnline to visualize and analyze spatial and qualitative data. We interviewed experts in Measure W who brought significant insights, and collected data found from Measure W projects. We found that the DAC designation is not aligned with water quality or community needs within Los Angeles County. Measure W's scoring did not reflect the importance of community engagement, nor did it incentivize the implementation of green infrastructure over grey infrastructure. Additionally, Measure W has not adequately addressed the potential for green gentrification due to environmental greening from projects. Despite these shortcomings, we determined that Measure W is a strong program with the potential to make a difference in Los Angeles County's infrastructure. By implementing our recommendations detailed in this report, Measure W could increase community benefit and improve project sustainability.



1. INTRODUCTION

STORMWATER

Stormwater, as defined by the Environmental Protection Agency (EPA), is “rainwater that runs off land and moves away from the area where it originally falls.” (EPA, n.d.) In urban areas like Los Angeles, stormwater is runoff that runs along impermeable surfaces such as asphalt and concrete, collecting trash, bacteria, and pollutants that ultimately end up in the Pacific Ocean, as well as local creeks and rivers. Stormwater runoff is a federal issue regulated under the Clean Water Act, instituted in 1972 by the EPA in order to regulate pollution discharge into bodies of water in the United States. Contaminated water poses a threat to recreational water users by exposing them to pollutants and pathogens, which may lead to illnesses such as gastroenteritis (Brinks et al, 2010) and respiratory infections (Dwight et al, 2004).

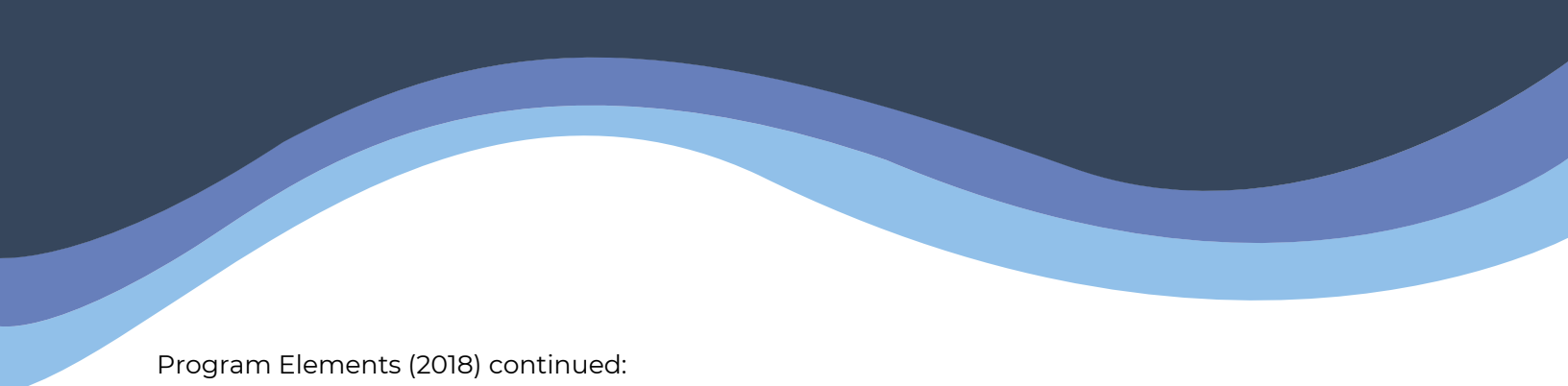
Beyond contributing to poor water quality, inadequate or poorly-maintained stormwater infrastructure can contribute to localized flooding, causing road closures and traffic blockages. Localized flooding is correlated with inadequate stormwater infrastructure in Los Angeles, specifically those in the East San Fernando Valley and East and Southeast Los Angeles (Prevention Institute, 2018). These areas consist of low-income communities of color (Prevention Institute, 2018), exacerbating environmental justice issues and leading to worsened community health.

Stormwater infrastructure is costly, and municipalities and regional agencies rely on measures or propositions to obtain money. The most recent piece of legislation that provides funding for stormwater infrastructure is Measure W, passed in 2018, which funds the Safe Clean Water Program (SCWP).

SAFE CLEAN WATER PROGRAM

Measure W places a small parcel tax per square foot of impermeable space, raising about \$300 million a year for stormwater projects to increase Los Angeles County’s water self-sufficiency. The goal of the Program as quoted from the Safe Clean Water: Program Elements (2018) document are:

- Improve water quality and contribute to attainment of water quality requirements.
- Increase drought preparedness by capturing more Stormwater and/or Urban Runoff to store, clean and reuse.
- Improve public health by preventing and cleaning up contaminated water, increasing access to open space, providing additional recreational opportunities, and helping communities mitigate and adapt to the effects of climate change through activities such as increasing shade and green space.
- Leverage other funding sources to maximize program goals.
- Invest in infrastructure that provides multiple benefits.



Program Elements (2018) continued:

- Prioritize Nature-Based Solutions.
- Provide a spectrum of project sizes from neighborhood to regional scales.
- Encourage innovation and adoption of new technologies and practices.
- Invest in independent scientific research.
- Provide funds such that each Municipality receives benefits in proportion to the funds generated within their jurisdiction.
- Provide Disadvantaged Community (DAC) Benefits in proportion to the DAC population in the County.
- Implement an iterative planning and evaluation process to ensure adaptive management.
- Promote green jobs and career pathways.
- Provide ongoing operations and maintenance for Projects

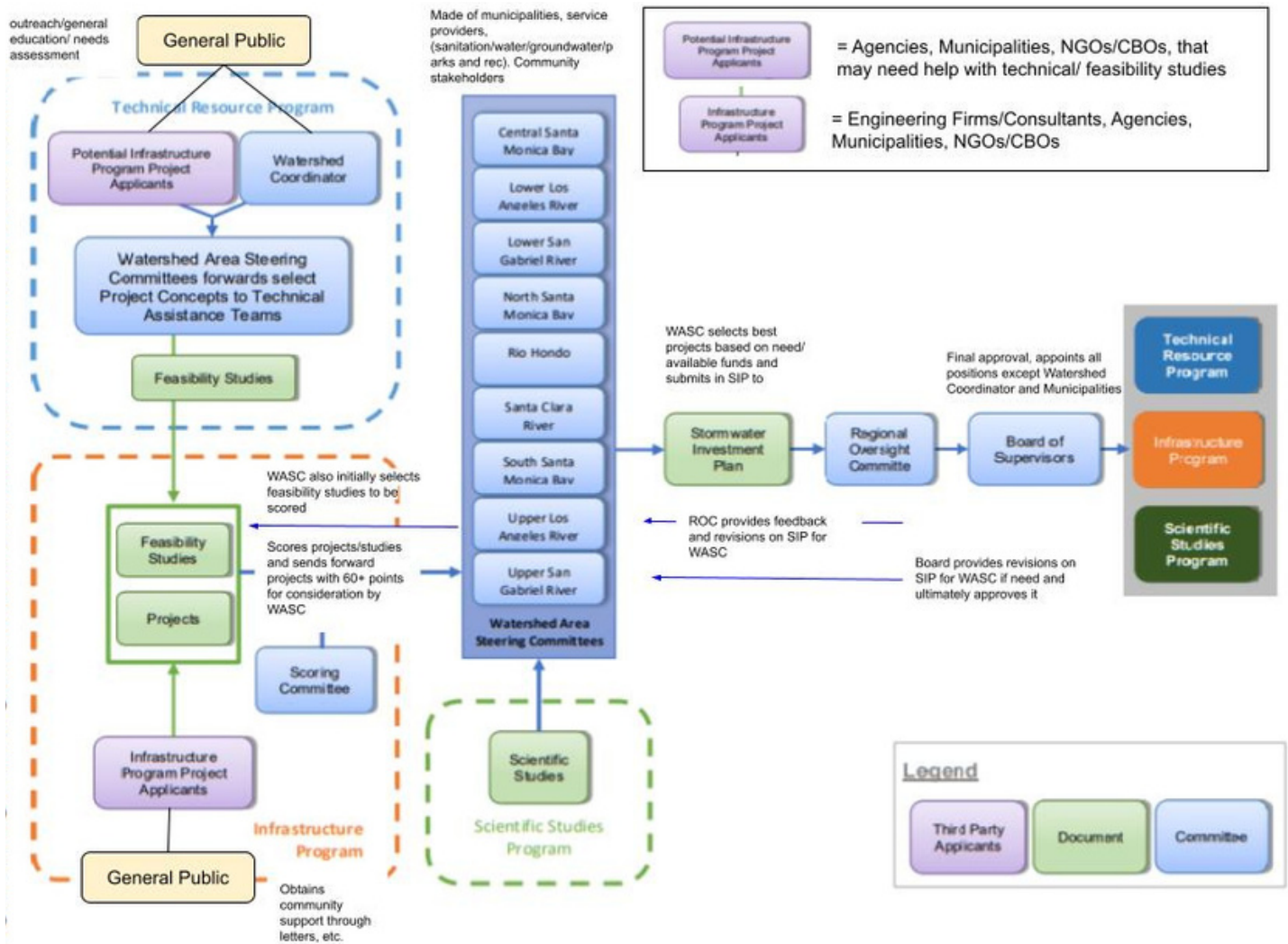
Source: Safe, Clean Water Program: Program Elements, 2018

The removal of trash and pollution from rainwater and runoff benefits numerous aspects of the environment, including community green spaces, marine life, watershed ecosystems, and human health. With climate change projected to increase climactic volatility and the frequency of droughts, Measure W is crucial in increasing our resilience against forces that can disrupt the livelihood of our community and ecological wellbeing.

Regional Project Selection and Criteria

In order to assess the projects under Measure W, it is critical to understand the criteria and approval process that a project must go through to obtain funding in the Regional Project Program, SCWP's most extensive program. 50% of funds under the SCWP are allocated for regional watershed projects. This program allows non-governmental proposals of projects from regional organizations such as engineering firms, agencies, and community-based organizations. There are four administrative committees that must review a project before it can receive funding. Three committees are specific to this measure (see Figure 1): the Watershed Area Steering Committees (WASC), where Los Angeles County is broken into nine different watersheds, the Scoring Committee, and the Regional Oversight Committee (ROC) (SCWP, 2018). The Board of Supervisors, also the governing body of Los Angeles County as a whole, appoints committee members and is ultimately responsible for allocation of funding. The Watershed Area Steering Committee forwards projects and project concepts of interest to the Scoring Committee, which evaluates them and returns them to WASCs for evaluation (SCWP, 2018). WASCs select specific programs for funding based on available funding, ratio of projects funded under each program (Infrastructure Program, Technical Assistance, and Scientific Studies) and in order to ensure that projects with a DAC benefit are given funding at at least 110% percent of the ratio of DAC population to total population within a given watershed area (SCWP, 2018). WASCs send their chosen projects to the Regional Oversight Committee (ROC) in a Stormwater Investment Plan, which is assessed and revised by them, and then the Stormwater Plan moves forward and is ultimately approved by the Board of Supervisors (SCWP, 2018).

Figure 1.1. Modified Safe Clean Water Regional Program Structure and Selection Process Flowchart, adapted from Safe, Clean Water Program: Program Elements, 2018



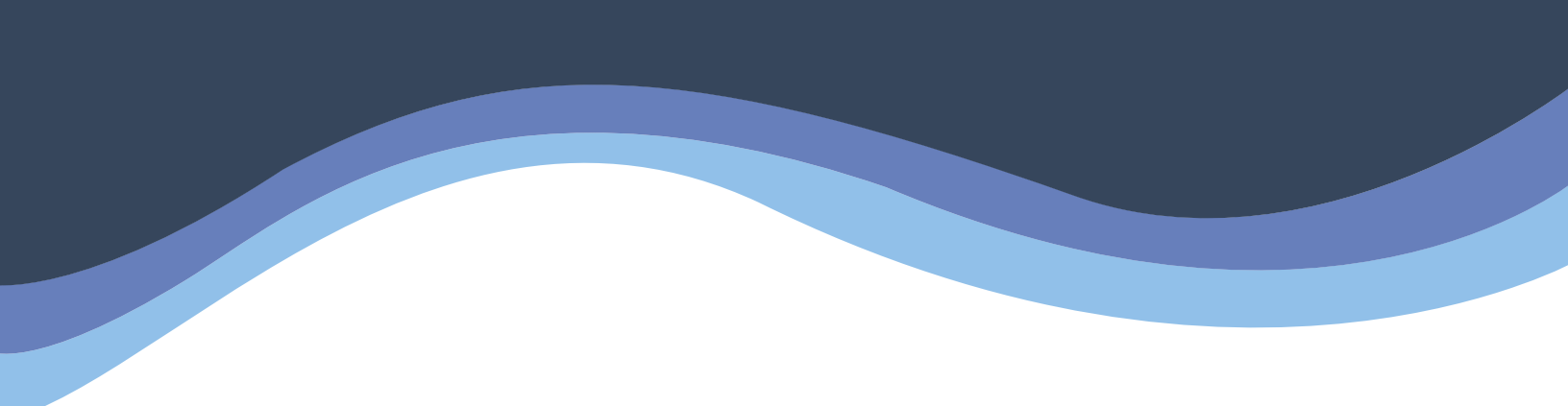
Safe, Clean Water Program: Program Elements, 2018



Improvements on Past Water Management in California

The most prominent piece of stormwater legislation in Los Angeles history is Proposition O: Clean Water, Ocean, River, Beaches, Bay Through Stormwater Projects, passed in 2004 in the City of Los Angeles, aimed to generate \$500 million dollars through property taxes and issue it in bonds to qualifying projects (SmartVoter, 2004). Though the proposition was smaller in scope than the current County-wide project, it had very similar goals. The goals of this project were as follows: "Water-quality protection of rivers, lakes, beaches, bays and the ocean, water conservation, drinking water and source protection, flood water reduction, river and neighborhood parks that prevent polluted runoff and improve water quality," and "stormwater capture, cleanup and re-use." The bond was written by environmental nonprofits and city officials, and seemed to invite public participation and community engagement (Park et al, 2009). However, Proposition O prioritized municipal needs and stormwater quality compliance, meaning that multi-benefit projects solicited from the public were often not considered to the same degree as city projects. In 2009, out of 22 Prop O eligible proposals, only 23% were nonprofit projects. Park et al. (2009) reports that many of the nonprofit proposals lacked the technical specificity to compete with city projects, and that consultant engineering firms had not received enough funding to assist in drafting complete proposals. Additionally, multi-benefit projects were not clearly quantified, so that project selection favored traditional projects (Park et al, 2009). Questionnaires distributed to different stakeholders, including nonprofits, engineering consultants, and environmental experts agreed that the Citizens Advisory Oversight Committee (COAC), which was responsible for coming up with project criteria, did not adequately consider multi-benefit projects (Park et al, 2009). These parties desired more transparency in the project selection process, especially when administrative parties seemed to favor projects that were focused on allowing cities to meet Total Maximum Daily Load (TMDL) limits, as required by the federal Clean Water Act (Park et al, 2009).

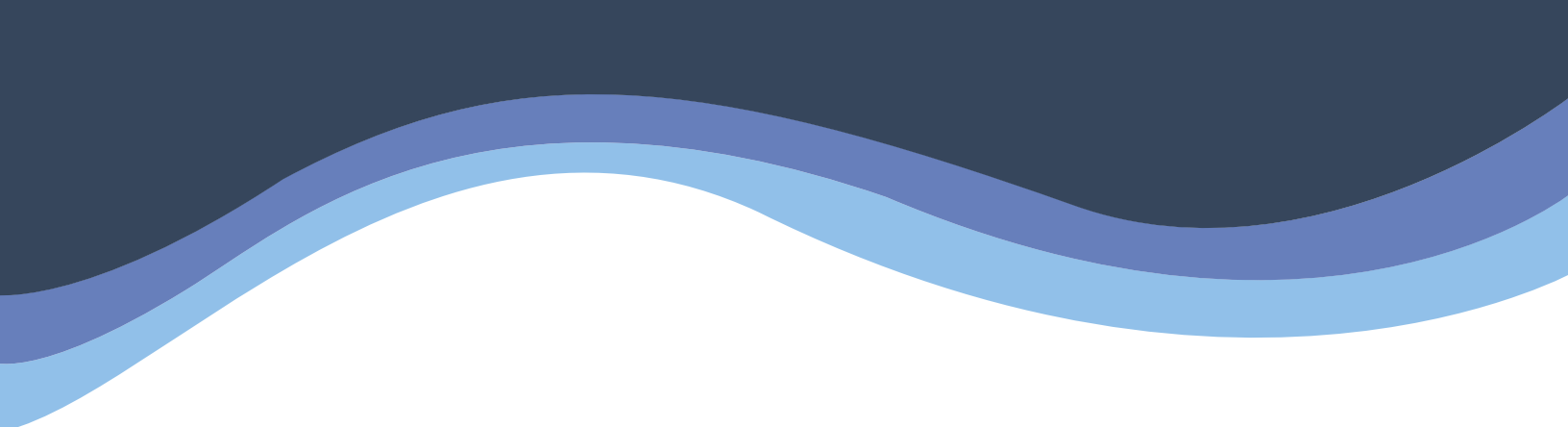
This is relevant to Measure W because Measure W specifically identifies Community-Based Organizations (CBOs), Non-governmental Organizations (NGOs), nonprofits, schools, and other groups that lack technical knowledge as potential Infrastructure Program Applicants. While Measure W also prioritizes water quality benefits, the SCWP goals explicitly list a desire for "infrastructure that provides multiple benefits." (SafeCleanWaterLA, 2018) It is worth assessing whether these groups are still at a disadvantage in Measure W's project selection process.



Measure W improves upon Proposition O's project selection process through dedicated funding of a Technical Resources Program, which aids NGOs, CBOs, and other similar groups in generating feasibility studies that can be assessed by the Scoring Committee (SCWP, 2018). However, receiving this assistance still requires a significant amount of time and advocacy in order to obtain feasibility study funding, let alone be able to resubmit the completed feasibility study for a second round of approval. The process begins with Watershed Coordinators, who perform community outreach and identify Potential Infrastructure Program Applications and project concepts (SCWP, 2018). These are forwarded to the Watershed Area Steering Committees, who can choose to dedicate up to 10% of regional program funds to development of feasibility studies in their Stormwater Investment Plan(SIP) (SCWP, 2018). This SIP undergoes revisions as ordered by the Regional Oversight Committee and the Board of Supervisors (SCWP, 2018). If approved, Technical Assistance Teams will assist NGOs and CBOs in completing feasibility studies. Technical Assistance Teams are appointed by the Board of Supervisors and consist of subject matter experts on a comprehensive list of topics, which include "Stormwater and/or Urban Runoff infrastructure design, hydrology, soils, Nature-Based Solutions, green infrastructure, Stormwater and/or Urban Runoff quality, water supply, recreation, open space, community needs, and other areas." (SCWP, 2018). The teams can work with or on behalf of NGOs and CBOs, but receiving their help in the first place is already a lengthy process. Future research should assess the time duration for Potential Infrastructure Project Applications to obtain funding for their feasibility study, to complete the study, and then to receive funding for the project itself by going through the process again. While Measure W's Technical Resources Program is an improvement on Proposition O because it allows NGOs and CBOs a genuine chance at project consideration and approval, the process may still be unnecessarily time and cost prohibitive to NGOs and CBOs, delaying access to stormwater infrastructure that the communities they represent may desperately need.

Project Overview

From its inception in 2018, the Safe Clean Water Program was dedicated to equity through guaranteed DAC funding and consideration of community investments, engagement, and anti-displacement. Measure W has gained the attention of many organizations and institutions for analyzing, reviewing, and revising the policies to ensure maximum effectiveness and equitability within Los Angeles County. Accelerate Resilience Los Angeles (ARLA) is an organization dedicated to Climate Resilience in Los Angeles. They have a working group of NGOs and municipal partners that assesses various impacts of Program and project implementation. This group published its final report in January 2022, including 22 recommended changes to the SCWP. ARLA's final report was a great source of information and analysis on Measure W, and much of our research complements or reinforces the recommendations included within the report. UCLA's Luskin Center for Innovation is also in the middle of performing a 2-year study, funded by the Los Angeles County Flood District, and is similarly focused on assessing equity in SCWP.



Our research complements this past research, reinforcing many of these expert group's suggestions by providing extensive analysis on the dozens of projects that have been designed and funded since the project's implementation in 2019. We assess the transparency, legitimacy, and overall equitability of the measure and the projects it funds, in order to provide a list of recommended improvements that will aid SCWP in developing safe clean water bodies and quality equitable stormwater infrastructure.

Our Research Questions

- Overall, are Safe Clean Water Program projects equitable, transparent, and legitimate? Is project funding equitably distributed throughout watersheds? Are projects funded and implemented in communities where they are most needed (based on DAC status, CalEnviroScreen, etc.)?
- Community Engagement: What is quality community engagement, according to SCWP? Is the project selection and approval process for Measure W designed to be conducive to community engagement and participation from community-based organizations?
- Are projects legitimate, based on past examples from other regions? Do they adequately address anti-displacement, nature-based solutions, and the stated goals of the measure (water quality, water supply, community investment)?



2. DISADVANTAGED COMMUNITIES



ASSESSMENT OF DAC DESIGNATION

Introduction

Measure W seeks to address water quality and capture in Los Angeles County through the implementation and funding of county-wide projects. Though, for a project to be considered for funding through Measure W, an organization, individual, or municipality must go through an extensive application and planning process. In addition to extensive planning and time, applicants need initial funding and support to get prepare for their application to the program. Consequentially, a significant barrier is created for disadvantaged communities with little access to resources and support. To address this issue, SCWP has a Disadvantaged Community (DAC) Benefit program in which "funding for projects that provide benefits to Disadvantaged Communities (DAC) are at least 110% of the ratio of the DAC population to the total population in each Watershed Area" (SCWP,2022). Although the program considers disadvantaged communities, the designations are determined solely by income, neglecting numerous other factors that could impede a community from participating in the program. Additionally, the current program promotes projects benefiting disadvantaged communities, however, it does not provide assistance for those within the DAC regions to develop projects themselves.

To ensure Measure W is providing equitable funding and assistance, we conducted our own assessment of LA County and its residents. The assessment includes an analysis of current DAC designations from the SCWP and a comprehensive analysis of Los Angeles County census tracts to create a new, multifaceted designation. Based on an extensive literature review and multi-project analyses, we selected specific variables we believe affect a community and its level of need. Using a capacity-based framework, we assessed census tracts within all nine watersheds using six context variables and three capacity variables (Mandarano & Meenar, 2017). Our research defines context as demographics and circumstantial variables that characterize communities and capacity as factors facilitating advocacy or action. This research aims to illustrate the varying level of disadvantage within LA County and highlight the subsequent need for SCWP to reevaluate DAC designations. Based on the goals of Measure W, as well as our assessment, we determined that Measure W's DAC designation is inadequate and non comprehensive and must be reevaluated to ensure equitable distribution of projects and funds.

Methodology

GIS methods were utilized to compare project locations to DAC locations. DAC block group data was downloaded from SCWP data (Price, 2021). When deciding on whether a project benefitted a DAC community, we created a half-mile buffer around the DAC block groups. The half-mile was chosen due to parks being considered inaccessible when a park is further than that distance (LA County Dept. of Parks and Rec., *Final report* 2016). Since the project proposals contained a community investment score, it is reasonable to require the project to be of similar distance

in order for DAC communities to utilize the benefits. A project was considered to benefit a DAC community if it intersected with the buffer and the proposal claimed that it benefitted a DAC community. Figure 2.1 shows the projects' DAC status according to their application and figure 2.2 shows the new DAC status according to the buffer.

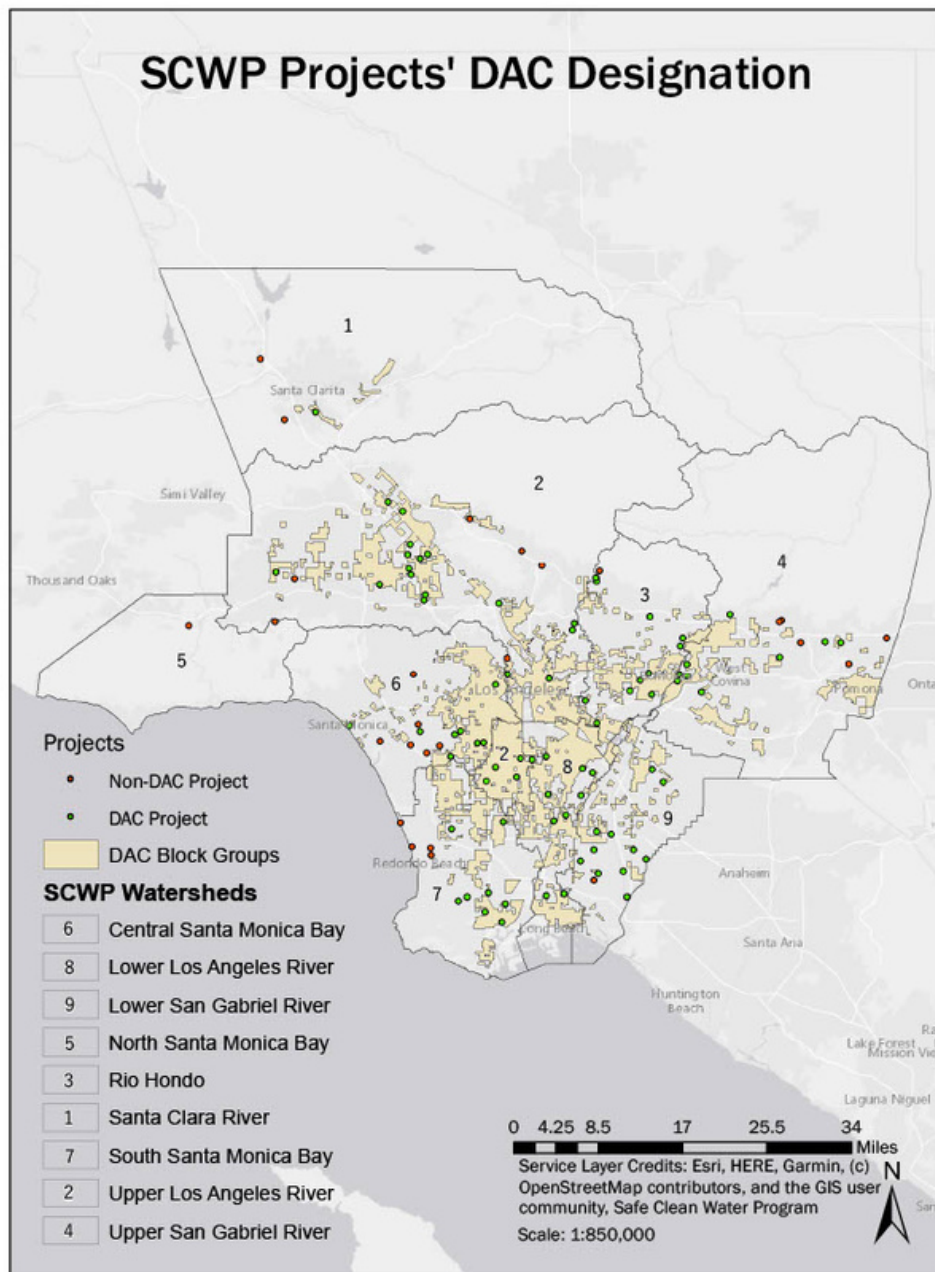


Figure 2.1: Projects by DAC status according to application.

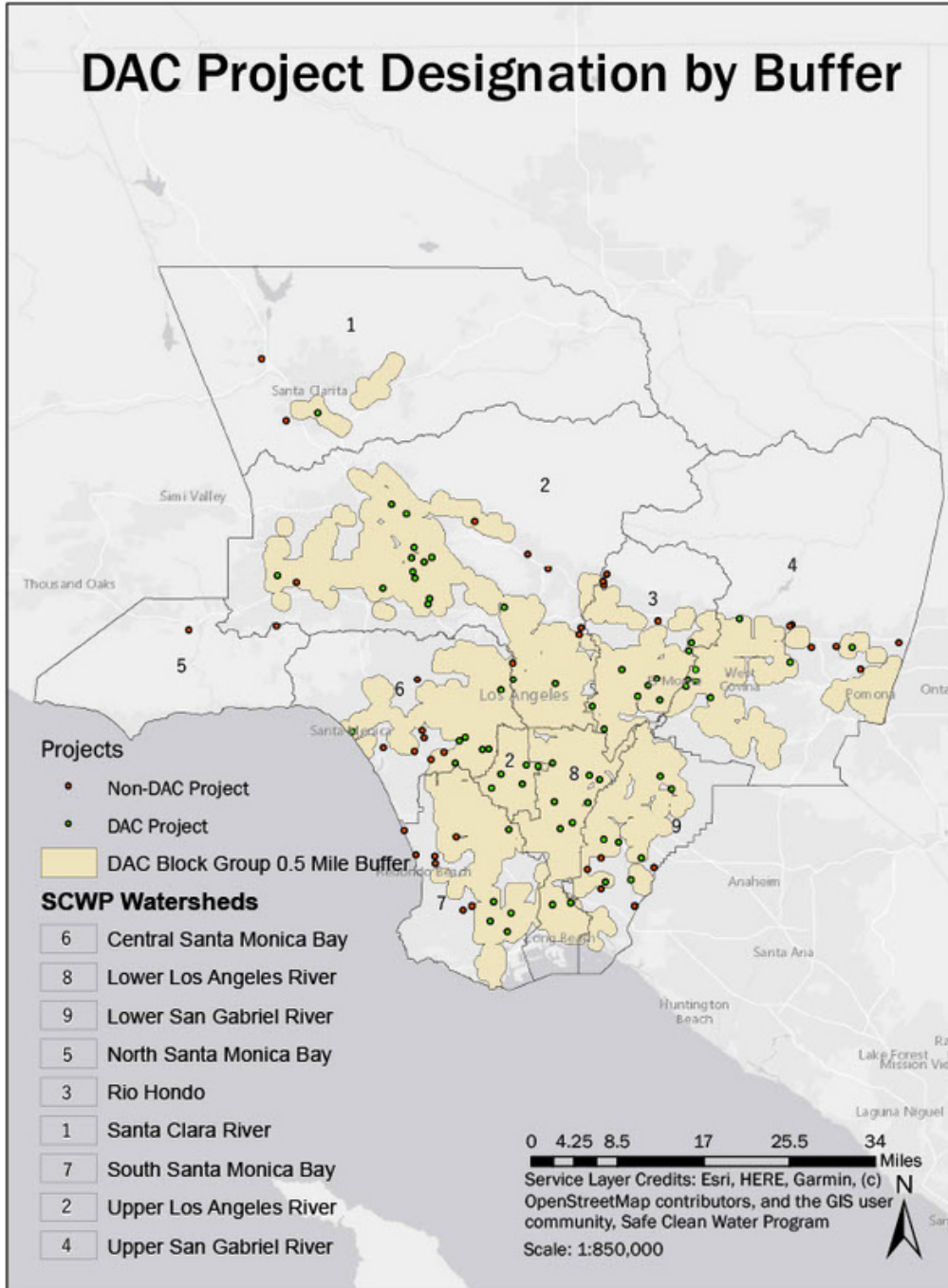


Figure 2.2: Projects by DAC status according to 0.5 mile buffer

In addition to analyzing the DAC designations set forth by SCWP, we wanted to assess LA County communities with our own methods to ensure disadvantaged areas were not being overlooked; consequently, adopting a modified version of a capacity based framework (Mandarano & Meenar, 2017). Data for all context and capacity variables were individually analyzed using the ArcGIS Online program. Each variable was then divided into five categories on a scale of ‘disadvantage,’ with 1 being the lowest and 5 being the highest level of disadvantage. Tables 1 and 2 show that the variables are divided by either equal interval or natural breaks, which was determined on a case-by-case basis to ensure accurate representation.

Table 2.1. Capacity variables by category

Capacity			
Level of Disadvantage	Bachelor Degree	Computer Access	Income
1- Lowest	80-100%	0-3%	> 165,000 – 250,010
2	60-80%	3-7%	> 114,500 – 165,000
3	40-60%	7-14%	> 80,000 – 114,500
4	20-40%	14-36%	> 55,500 – 80,000
5- Highest	0-20%	36-100%	4,910 – 55,500
Measurement	Percent of Population 25 Years and Over Years whose Highest Education Completed is Bachelor's Degree or Higher	Percent of Population 25 Years and Over in Households that Have No Computer	Median Household Income in past 12 months
Method of division	Equal interval	Natural breaks	Natural breaks

Table 2.2. Context variables by category

Context						
Level of Disadvantage	%POC	Low-Income	Linguistic Isolation	Single Parent (Mom+Dad)	Homeless Population	CalEnviroScreen 4.0
1- Lowest	80-100%	0-20%	0-20%	0-20%	0 To 140	0-20%
2	60-80%	20-40%	20-40%	20-40%	> 140 To 430	20-40%
3	40-60%	40-60%	40-60%	40-60%	> 430 To 1,000	40-60%
4	20-40%	60-80%	60-80%	60-80%	> 1,000 To 2,030	60-80%
5- Highest	0-20%	80-100%	80-100%	80-100%	> 2,030 To 4,890	80-100%
Measurement	% of Pop. that is White alone, Non-Hispanic	% of Pop. whose income in the past 12 months is below poverty level	% of adults 18 years and over who have limited English ability	% of Children in Single Parent Household	Total homeless population per census tract	Pollution Burden percentile
Method of Division	Equal interval	Equal interval	Equal interval	Equal interval	Natural breaks	Equal interval

Once categorized, we extracted only the census tracts with a rank of 3,4,5 to focus on the moderate to most disadvantaged communities for both the capacity and context groups; census tracts with a 1 or 2 ranking were no longer relevant for our research, and therefore not represented on the maps. The data were further processed in ArcMap using overlay analysis tools to combine variables based on disadvantage level for context and capacity data, as seen in Figures 2.3 and 2.4. Once all data was combined by category, we identified priority census tracts based on varying levels of capacity and disadvantage. These priority areas were then used to complete our analysis of equity. For further breakdown of our data and scoring visuals, which include the less disadvantaged census tracts with scores of 1 and 2, reference Appendix A.

Figure 2.3. Combined capacity variable ranked by disadvantage

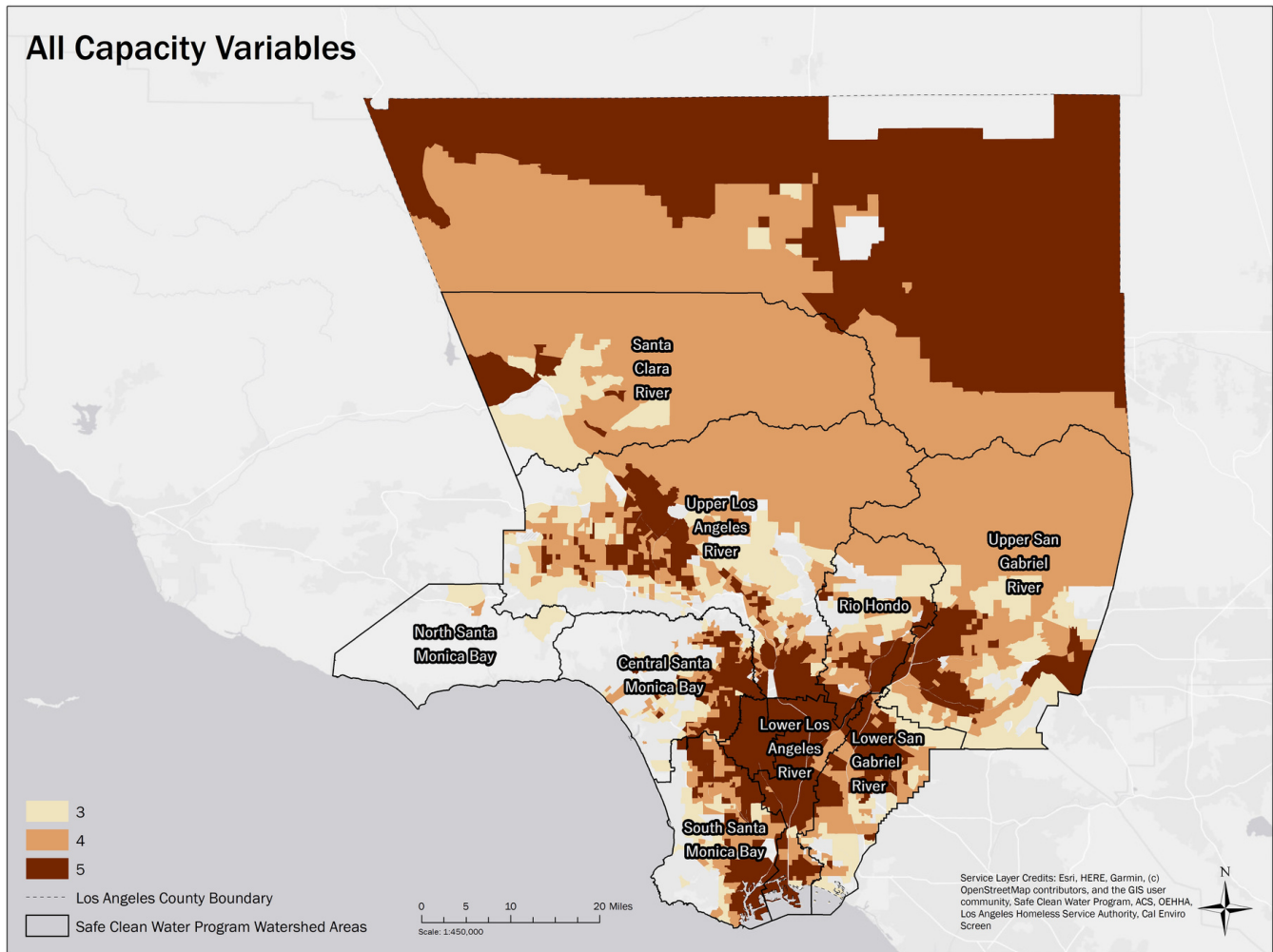
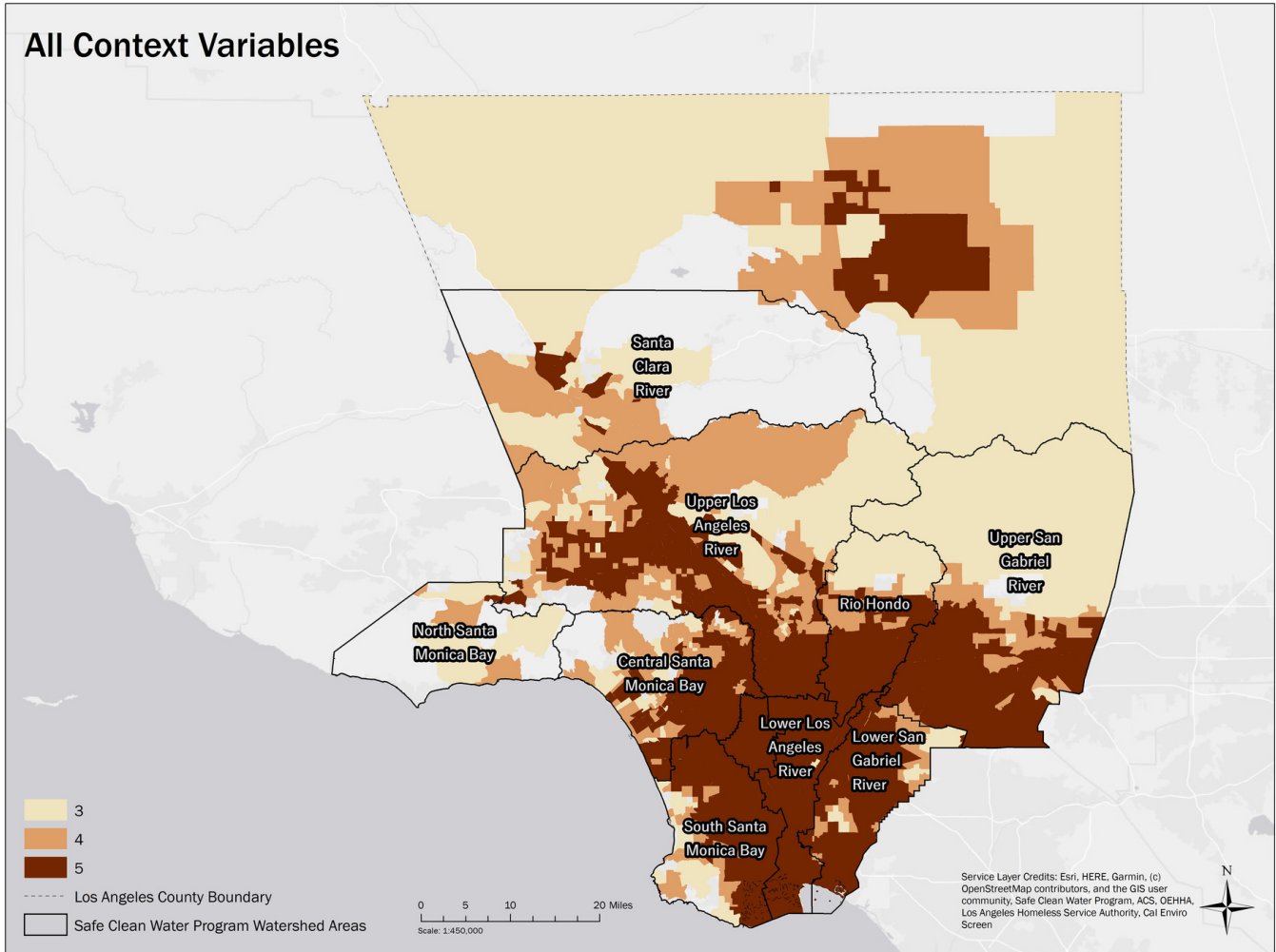


Figure 2.4. Combined context variables ranked by disadvantage



Results

Table 2.3. Scoring and DAC Status

		Project Application Scores	Scoring Committee Scores
All Projects	Number of Projects	107	107
	Community Investment Score Mean	6.6	5.4
	Leveraging Fund Pt. 2 Score Mean	3.1	2.2
	Total Score Mean	75.3	70.5
Application Claims DAC benefit	Number of Projects	81	81
	Community Investment Score Mean	7.2	5.7
	Leveraging Fund Pt. 2 Score Mean	3	2.1
	Total Score Mean	76.6	71.7
Application Doesn't Claim DAC Benefit	Number of Projects	26	26
	Community Investment Score Mean	4.8	4.5
	Leveraging Fund Pt. 2 Score Mean	3.4	2.6
	Total Score Mean	71.2	66.8
Within DAC Block Group and Application Claims DAC Benefit	Number of Projects	32	32
	Community Investment Score Mean	7.7	5.8
	Leveraging Fund Pt. 2 Score Mean	3	2.1
	Total Score Mean	77.7	72.1
Outside DAC Block Groups or Application Doesn't Claim DAC Benefit	Number of Projects	75	75
	Community Investment Score Mean	6.2	5.3
	Leveraging Fund Pt. 2 Score Mean	3.1	2.3
	Total Score Mean	74.3	69.9
Within 0.5 Miles of DAC Block Group and Application Claims DAC Benefit	Number of Projects	65	65
	Community Investment Score Mean	7.2	5.8
	Leveraging Fund Pt. 2 Score Mean	3.1	2.1
	Total Score Mean	76.8	72.1
Over 0.5 Miles Away from DAC Block Groups or Application Doesn't Claim DAC Benefit	Number of Projects	42	42
	Community Investment Score Mean	5.6	4.8
	Leveraging Fund Pt. 2 Score Mean	3.1	2.3
	Total Score Mean	72.7	68.1

Initially, 81/107 of the projects claimed they benefitted a DAC. When applying the new standards of requiring the project to exist within a half-mile of a DAC, there was a 20% decrease of projects to 65 benefitting a DAC. When comparing the scoring committee averages of DAC projects and non-DAC projects, the DAC community investment score averages are 21% higher than the non-DAC averages, the DAC total score averages are 6% higher than non-DAC, and the DAC leveraging funds pt. 2 score averages are 9% lower than non-DAC.

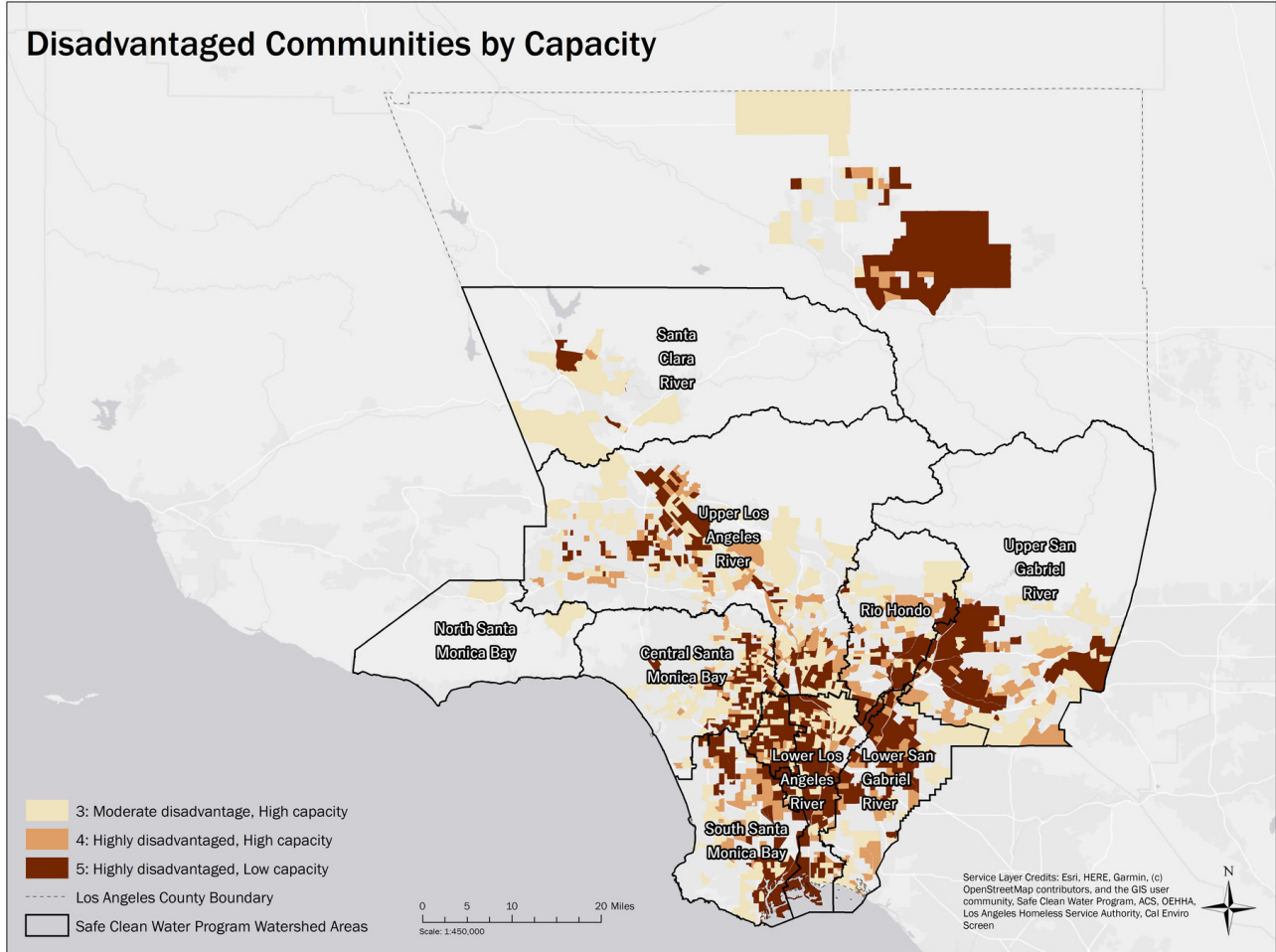


Figure 2.5. Capacity-based framework map of disadvantaged areas

The results acquired from the capacity-based framework are crucial to understanding a community's ability to improve and seek assistance. All census tracts illustrated on the map in Figure 2.5 experience moderate to severe levels of disadvantage in multiple categories. It is important to note that each of these census tracts, and their respective watersheds, could use assistance. However, this research is to identify those requiring the most assistance to ensure Measure W is equitably distributed and accessible. Based on the maps, it is evident that the communities surrounding South Gate, Compton, Long Beach, and Downtown are the most disadvantaged communities with the lowest capacity to facilitate change on their own. The majority of these communities are within the Lower and Upper Los Angeles River watersheds, placing a significant burden on the communities and the watersheds. Navigating away from these epicenters, the level of disadvantage tends to decrease, and the capacity increases. This research highlights the need for community outreach and capacity-building-based programs. Although the communities ranked as a 5 need the most assistance, they do not have the capacity to rally community members, show interest, or allocate funds to programs such as Measure W.

Capacity Framework as it Relates to SCWP Technical Resource Program

The Technical Resource Program (TRP) “provides resources to community groups, municipalities, and individuals who need technical assistance to develop their project concepts” (SCWP, 2022). The program can significantly benefit communities that would otherwise not have the funds or enough resources to complete a feasibility study and obtain support letters. Though the program provides assistance to improve equity among watersheds and communities, it is contingent on those communities having at least a moderate level of capacity to devise, plan, and submit a worthwhile proposal to the Watershed Steering Committees. The map in Figure 2.6 represents the current allocation of funded and submitted TRP projects in relation to the communities previously identified as disadvantaged with low capacity. It is evident that the projects are predominantly on the outskirts, away from the epicenter of disadvantage and low capacity, and lie either in communities with high capacity or in communities that are not designated as ‘disadvantaged.’ In regards to equity, this poses a considerable issue. To the general public or even elected officials, the TRP would appear as an adequate solution to combat inequality among watersheds and improve water quality for all. However, the program fails to include those with low capacity because the baseline for gaining assistance is above what they are capable of doing.

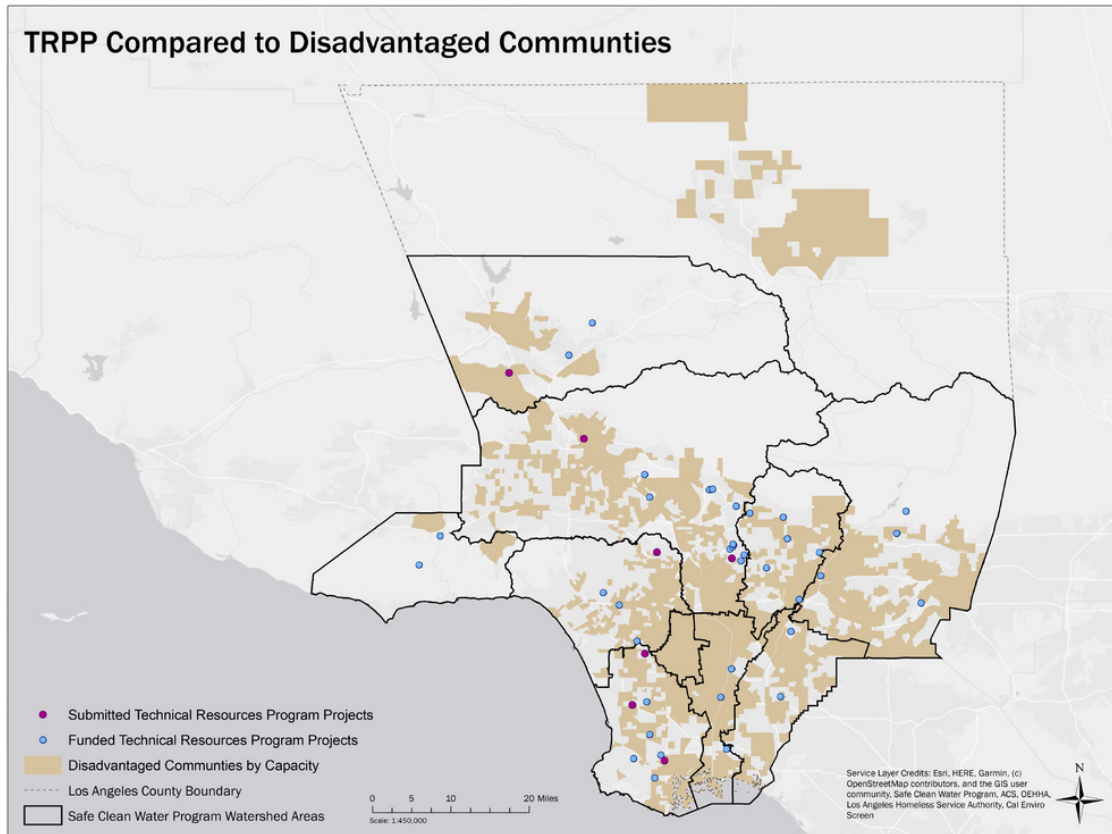


Figure 2.6. Technical Resource Program projects overlaid with disadvantaged communities by capacity

DAC Designation Compared to Other Water Metrics

The Polluted Drinking Water variable was determined by the top 25th percentile of drinking water pollution in Los Angeles County. According to the data we were able to collect, only 57% of DAC-designated areas overlapped with the top 25th percentile of CalEnviroScreen 4.0's Drinking Water Pollution Metric.

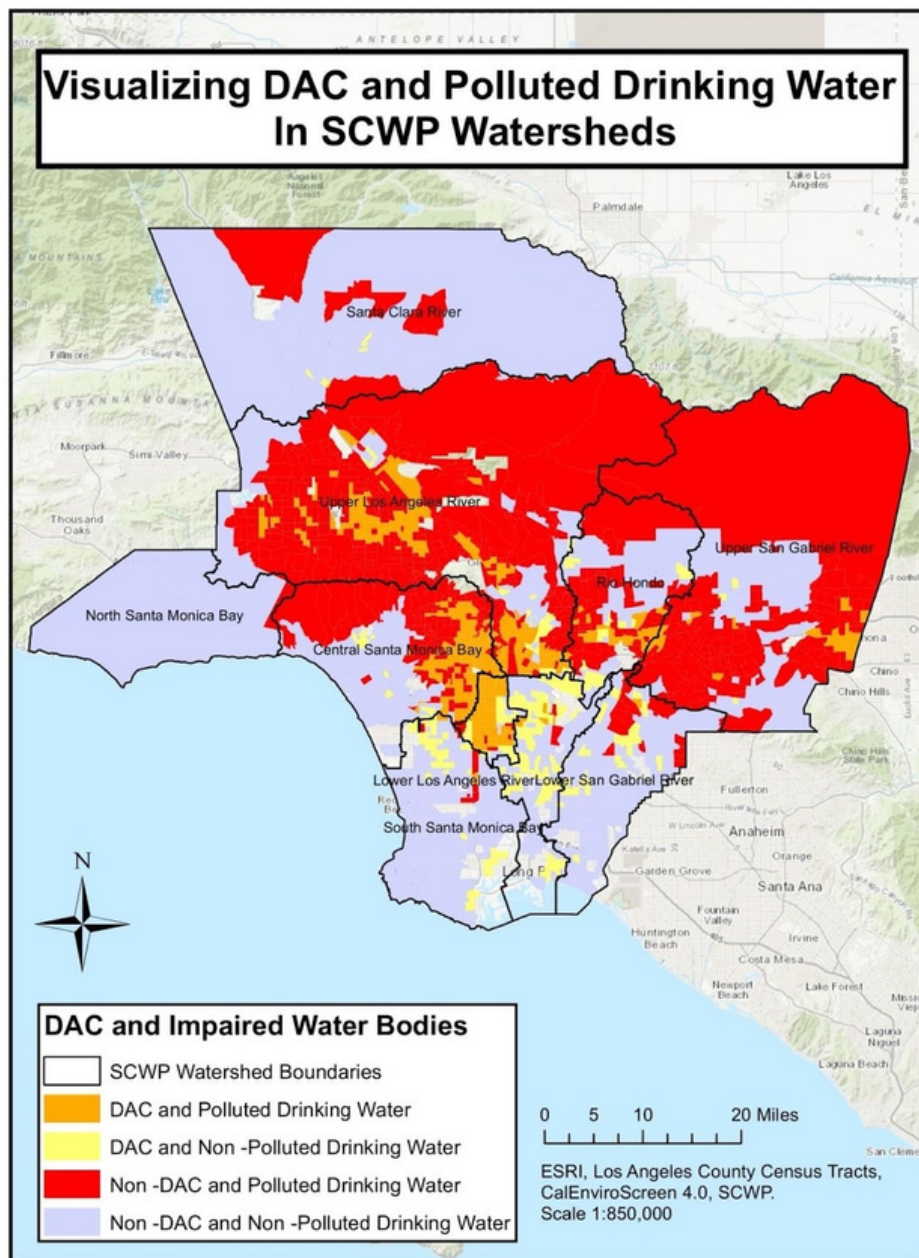


Figure 2.7. Map comparing SCWP DAC designation and CalEnviroScreen 4.0's Drinking Water Pollution Metric.

The Impaired Water Bodies variable was determined by the top 25th percentile of Impaired Water Bodies in Los Angeles County. According to the data we were able to collect, only 9% of DAC-designated areas overlapped with the top 25th percentile of CalEnviroScreen 4.0's Impaired Water Bodies.

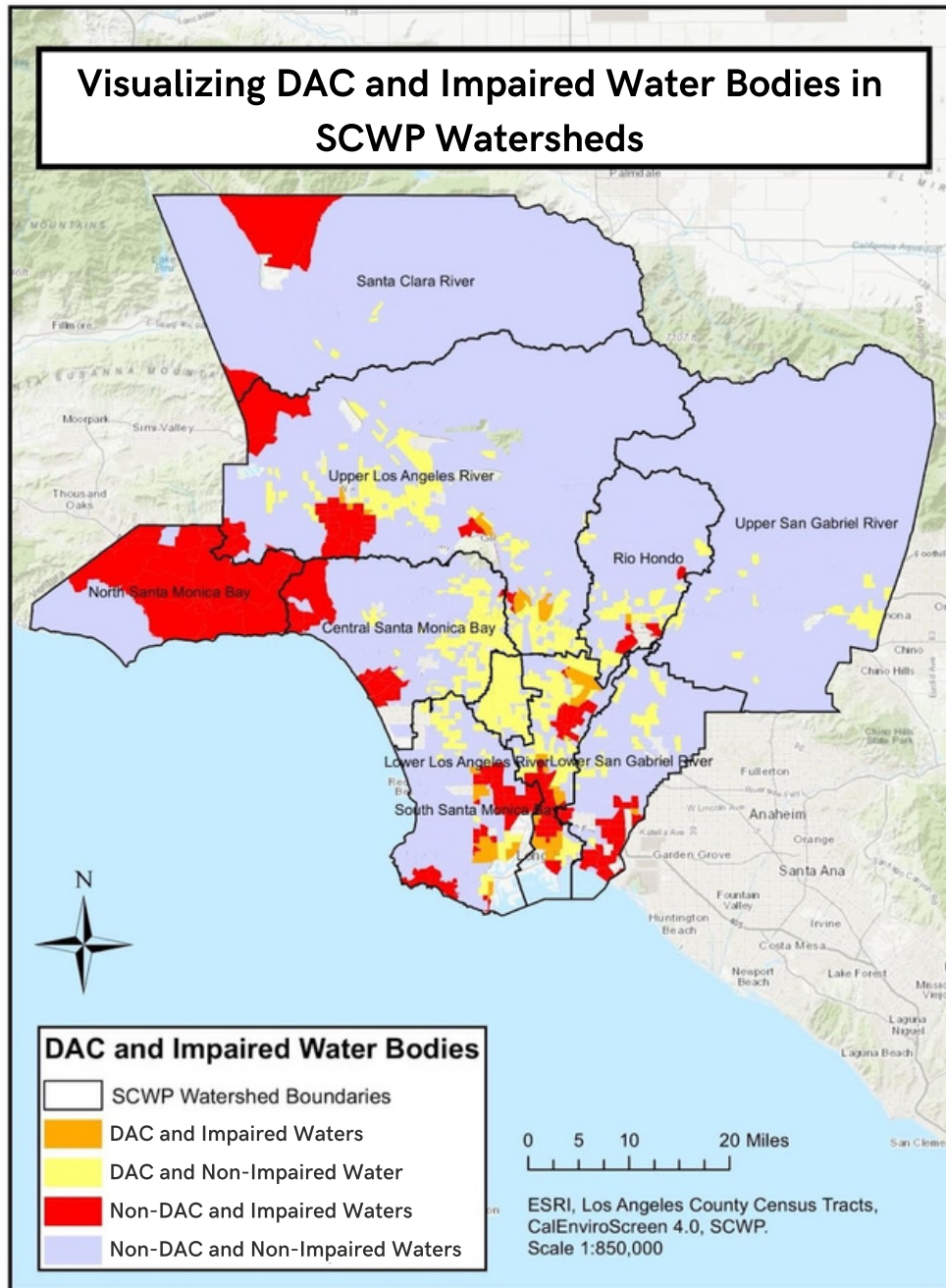


Figure 2.8. Map comparing SCWP DAC designation and CalEnviroScreen 4.0's Impaired Water Bodies Metric.

Discussion

The GIS analysis showed that applications were claiming that they were benefitting DACs even though they were not located in or near DACs. While early projects and guidelines ranged from non-existent to confusing, SCWP has adjusted its application to give clearer guidelines for whether a project provides DAC benefits. The program could adjust guidelines by considering projects within a half-mile of a DAC to be beneficial to them. If over a half-mile indicates that a park is inaccessible, the same could be said for a project's community investments, especially since DACs have historically lacked community investment. Measure W required that DACs received a higher percentage of funding for projects, but it was not codified that the DAC projects must be of similar or better quality than non-DAC projects. We assessed whether DAC projects would be getting the community investment they need and whether their projects showcase local support, by comparing the averages of those scores between DAC and non-DAC projects. DAC projects were found, on average, to have a higher total score and community investment score; and only 9% lower leveraging funds pt. 2 scores than non-DAC projects. It is fair to conclude that DAC communities are not receiving lower quality projects than their non-DAC counterparts.

Data, map, and program analysis show there is a great need for an improved assistance program specifically intended to increase capacity. At the core of the SCWP, project allocation is equitable to the extent possible given their current resources and foundation. Consequently, to improve equity, Los Angeles county and Measure W must begin at the root of the problem: low capacity in highly disadvantaged areas.

During the analysis of DAC designation and CalEnviroScreen 4.0 water metrics, we discovered varying levels of overlap between the top 75th percentile of pollution and the 80 percent of statewide household median income. We noticed about 57 percent of the DAC-designated areas overlapped with water quality within the SCWP's watersheds. Additionally, we noticed an about 9 percent overlap between DAC-designated areas and impaired water bodies areas. Further, considering Measure W's primary goal is to promote water quality, capture, and community benefits, DAC designation attributes should be considered beyond income such as areas of poor water quality.

The goal of this analysis was to visualize the geographic overlap between water quality metrics and income metrics. The results of comparing DAC designation and other water quality metrics demonstrate that distinguishing DAC based on income does not have the strongest correlation between the water quality and pollution metrics. SCWP based its DAC designation on the standard definition from Water Code section 79505.5. SCWP's DAC designation has precedence and changing the designation would have a wide scope of consequences associated with who would no longer benefit and who would. Considering the ramifications of changing the DAC designation, we would suggest extending DAC's designated areas to include more factors other than income. CalEnviroScreen 4.0 is an excellent screening tool to determine social, economic, and environmental burdens based on census tracts within California. Therefore, DAC should strongly consider using these metrics and data which are already readily available to extend the designation. Additionally, these metrics could be used to secure further funding based on the top 25th percentile of water pollution within the region.

Recommendations

Create a County-Wide Community Engagement Program

We suggest creating a county-wide program to teach community members about city planning, development, zoning, and the burdens their community faces through the lens of city planners and officials. Los Angeles County could reference Philadelphia's Citizen Planning Institute as a model for developing the program (CPI,2022). The program would empower citizens with knowledge and resources, therefore increasing their capacity. We suggest building this program as either an extension of the Technical Resources Program to directly work on Measure W projects or as a separate entity that would broaden the focus and benefit numerous other facets of city development.

Extend the DAC designation to include the top 25th percentile in water quality and impaired water bodies

We suggest maintaining the standard DAC definition and adding further areas to this designation based on CalEnviroScreen 4.0's top 25th percentile of pollution in both water quality and impaired water bodies. In alignment with the primary goals of Measure W to increase water quality, capture, and community investment, increasing the DAC designation to areas of poor water quality will enable more focused areas for future projects.



Proximity



Community
Needs



Capacity

Limitations and Future Research

Regarding capacity, we suggest that future research be done at a grass roots level within the communities identified as highly disadvantaged with low capacity. We suggest auditing the current resources available to each community and assessing their purpose, and potential to assist, as it relates to improving the overall capacity of citizens. This level of research is beyond the scope of our project, but we feel it would be conducive to the implementation of our suggestions.



3. COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT WITHIN THE SCWP

Introduction

Meaningful dialogue through community engagement, especially with “communities commonly excluded from democratic voice & power”, is critical to creating equitable projects that adequately prepare a community for future crises (Gonzalez, 2021). Community engagement is highly valued among the Community Based Organizations (CBOs) who advocated for Measure W’s passing, and is part of the scoring committee’s rubric for assessing Infrastructure projects within the Program. While the primary goal of SCWP based on Scoring Committee point allocation is Water Quality and Water Capture, the SCWP program dedicates 4 out of 110 potential points for a project to community engagement, listed in the criteria as Leveraging Funds 2. Information regarding community engagement is also requested in the Safe Clean Water Program Regional Project Application (Figure 3.1).

7.2 Local Support

Please describe the Outreach Plan conducted for this project:

Does this demonstrate strong local, community-based support?

The following table details the support by local, community-based organizations for the project (also see attachments):

Local Support		
Organization Name	Description	PDF

Figure 3.1. Community Investment and Local Support Benefits chapter, more specifically the Local Support section. Modified from Torrance Airport Storm Water Basin Project, Phase 2, Feasibility Study Report, Region Program Projects Module

Insight into Scoring for Community Engagement

The Project Application asks 4 things regarding community engagement:

- Please describe any prior outreach and engagement conducted for this project
- Please describe the Outreach Plan for this project moving forward
- Does this demonstrate strong local, community-based support?
- The following table details the support by local, community-based organizations for the project. (The application requests that they attach letters of support here.)

Finally, the project asks them to score their own community engagement. Projects can receive a maximum of 4 points in Leveraging Funds 2 based on one metric: “The Project demonstrates strong local, community-based support and/or has been developed as part of a partnership with local NGOs/CBOs.” (SafeCleanWaterLA, 2018) Based on our preliminary research, this prompt was not sufficiently specific and did not adequately communicate the Scoring Committee's expectations for community engagement. This confusion could result in a discrepancy between a project's perceived community engagement score and the score they received from the Scoring Committee. This confusing criteria provides one reason why a project lead may not complete quality community engagement.

Furthermore, our client, David Diaz, told us that community engagement is not currently incentivized in scoring. He told us that only 60 points out of 110 potential points are necessary to have a project considered for funding, meaning that many project leads could skip community engagement entirely and still qualify for funding. This is troubling for a measure designed to promote equity and prevent anti-displacement. In 2022, groups such as Accelerate Resilience Los Angeles (ARLA) and the Safe Clean Water Program itself have provided additional guidance and suggestions that would properly incentivize meaningful engagement. In particular, ARLA recommends that Leveraging Funds Part 2 should be increased to 10 points rather than four points, and split accordingly:

Points	Criteria
• Award 2.5 points for documented community engagement completed prior to application submission that reaches Levels 3, 4, or 5 on the Spectrum of Community Engagement to Ownership model. Prior engagement will be assessed based on the submitted community involvement documentation. Project proponents should provide the following:	<ul style="list-style-type: none"> » Letters from involved community leaders, NGOs/CBOs, individuals, and elected representatives stating their support for the project. All letters of support should describe how they were engaged in the process. » Minutes from meetings, including attendees and their affiliations (if applicable), photos, or other documentation.
• Award 2.5 points for planned community engagement that reaches Levels 3, 4, or 5 on the Spectrum of Community Engagement to Ownership model.	<ul style="list-style-type: none"> » Applicants are required to submit a community engagement and monitoring plan that fits within the Spectrum of Community Engagement to Ownership model as part of the application process. Engagement plans should include budgets and mechanisms for reporting back to the SCWP committees in their proposals. If the Community Engagement Plan includes activities from Levels 3-5 (“Involve/Collaborate/Defer to”) on the Spectrum of Community Engagement to Ownership model, the project will receive the points.
• Award 2.5 points for projects that have worked with a local CBO/NGO to shape the proposed project.	<ul style="list-style-type: none"> » Applicants can demonstrate this by providing a letter of support from the CBO/NGO that represents community members that will be impacted, explaining how they contributed to shaping the proposed project.
• Award 2.5 points for projects that meet community needs:	<ul style="list-style-type: none"> » Step 1: Identify the population <ul style="list-style-type: none"> - Project proponents must use tools (see Recommendation 12) to determine the population benefiting from their project (via applicable service areas) » Step 2: Identify the needs <ul style="list-style-type: none"> - Use needs assessments to determine needs in each Watershed Area - SCWP funding cycle 4 – Use DACIP - SCWP funding cycle 5 and beyond – Use needs assessments from the Needs Assessment Initiative (see Recommendation 6) » Step 3: Verify that benefits provided directly address an identified need <ul style="list-style-type: none"> - Using the Needs Assessment Initiative checklist, award points if the project includes components that, when executed, address one or more key needs identified in the needs assessment

Table 3.1. ARLA scoring breakdown for those that pass past application/feasibility. Source: Jackson et al, 2022, ARLA Report: Using Watershed Science to Build Consensus and Maximize Benefits of L.A. County's Safe Clean Water Program, 2022

In particular, they set a bare minimum standard for all projects to complete, regardless of community engagement points, where all project leads must inform communities of their intentions and receive input and feedback from them in community meetings. The table references The Spectrum of Community Engagement to Ownership, a document created by Rosa Gonzalez and Facilitating Power with the Movement Strategy Center in 2021. It emphasizes local democracies, and participation from “communities commonly excluded from democratic voice and power.” Similarly, the SCWP 2022 Interim Guidance document, released in February 2022, uses this document to explain their expectations for community engagement (Table 3.2).

	Good	Better	Best
Engagement Levels	<p>Inform - Provide the community with relevant information</p> <p>Consult - Gather input from the Community</p>	<p>Involve - Ensure community input, needs, and assets are integrated into processes, receive demonstrable consideration and appropriate responses, and inform planning</p> <p>Educate – Grow community understanding of the existing infrastructure systems, purposes, perceived outstanding needs, pertinent history and regulations, SCWP opportunities (including Watershed Coordinators) to establish</p> <p>Learn – Grow own understanding of existing community, perceived needs, pertinent history, key concerns, and other potentially interested parties.</p>	<p>Collaborate - Leverage and grow community capacity to play a leadership role in both planning and implementation</p> <p>Incorporate - Foster democratic participation and equity by including the community in decision-making, bridge divide between community and governance</p> <p>Partner – Establish certain project concepts based on community-driven and identified needs, solidify formal partnerships, and build in sustained paths forward to joint implementation and management with well-defined roles per agreement</p>

Table 3.2. SCWP 2022 Interim Guidance, best practices for conducting outreach and engagement, Safe Clean Water Program, 2022

We used this revised framework to assess Infrastructure projects approved for funding since the Program’s implementation in 2018, determining how many projects currently perform the lowest level of community engagement activities requested by ARLA and the Safe Clean Water Program. With this information, we could identify areas where additional guidance or support should be provided in order to promote high community engagement levels.

ANALYSIS

Data Collection: Project Level Analysis

Leveraging Funds 2

We gathered proposal scores from two separate places. The project's proposal scores came from downloading the project applications on the SCWP Website (SCWP Reporting Map, 2022). The scoring committee project scores were gathered from the scoring committee meeting notes and scoring rubrics on the Scoring Committee Page on the SCWP website (SCWP, 2022). These scores were compiled into a database of scores for internal use. In viewing these scores, we recorded some of the listed reasons for giving a project a good score, or for giving a project a lower score than expected.

Community Engagement

To limit the scope of projects to observe, we used a list of projects obtained from the Samuel Price with Stantec from ArcGIS Online, the account that holds the official data library for the SCWP. This analysis used the Funded Infrastructure Projects shapefile, which was a feature layer of 77 projects that had been funded up to the 2021 - 2022 fiscal year. We then looked at the project proposal for each project on this list, accessed through the SCWP Project Portal on the SCWP website, looking for specific activities mentioned in the Spectrum of Community Engagement to Ownership. These are not definitive judgements of the community engagement that a project lead performed, but a qualitative observation made with the same information that the Scoring Committee had access to when judging.

Stance toward community	0	1	2	3	4	5
	IGNORE	INFORM	CONSULT	INVOLVE	COLLABORATE	DEFER TO
Impact	Marginalization	Placation	Tokenization	Voice	Delegated Power	Community Ownership
Community Engagement Goals	Deny access to decision-making processes	Provide the community with relevant information	Gather input from the community	Ensure community needs and assets are integrated into process and inform planning	Ensure community capacity to play a leadership role in implementation of decisions	Foster democratic participation and equity by placing full decision-making in the hands of the community; bridge divide between community and governance
Message to Community	"Your voice, needs, and interests do not matter"	"We will keep you informed"	"We care what you think"	"You are making us think (and therefore act) differently about the issue"	"Your leadership and expertise are critical to how we address the issue"	"It's time to unlock collective power and capacity for transformative solutions"
Activities	<ul style="list-style-type: none"> • Closed-Door Meetings • Misinformation • Systematic Disenfranchisement 	<ul style="list-style-type: none"> • Fact Sheets • Open Houses • Presentations • Billboards • Videos 	<ul style="list-style-type: none"> • Public Comment • Focus Groups • Community Forums • Surveys 	<ul style="list-style-type: none"> • Community Organizing & Advocacy • House Meetings • Interactive Workshops • Polling • Community Forums 	<ul style="list-style-type: none"> • MOUs with Community-Based Organizations • Community Organizing • Citizen Advisory Committees • Open Planning Forums with Citizen Polling 	<ul style="list-style-type: none"> • Community-Driven Planning • Consensus Building • Participatory Action Research • Participatory Budgeting • Cooperatives

Table 3.2. ARLA's Modified Spectrum of Community Engagement to Ownership.
 Source: Jackson et al, 2022, ARLA Report, Using Watershed Science to Build Consensus and Maximize Benefits of L.A. County's Safe Clean Water Program, 2022

Most proposals remained vague about the nature of their community engagement, so we identified three levels of engagement that we were interested in:

- Level 1, which involved informing the community through public outreach events. The in
- Level 2, Consulting, which involved receiving feedback from community members in meetings, focus groups, community forums, surveys. If a group mentioned using feedback to shift the design or location of the project, it was included here.
- Collaboration with a CBO/NGO, which is Level 4+ of community engagement, as well as half of the Scoring Committee's scoring standard. Projects were marked yes on this if they were led by NGOs, such as Amigos de los Rios, or if a CBO/ local NGO was listed in the Local Support section as contributing to the design or outreach of the project.

To complement this data, we generated a list of projects with exceptional community engagement to identify their strategies and the resources they had access to. Additionally, we reached out to various members of the scoring committee, including David Diaz and Dr. Kirsten Schwarz, whom both specialize in assessing Community Investments. They assisted us in understanding how the Scoring Committee determines the number of points a given project should receive and whether that matches the criteria listed in existing community engagement guidance materials.

Results

Leveraging Funds 2

Projects consistently scored themselves higher in their Project Application as compared to Scoring Committee Scores in all categories, with a 0.9 point difference in point average for the Leveraging Funds 2. In particular, 83 projects gave themselves a 4 in Leveraging Funds 2 while 46 projects in total received a 4 from the Scoring Committee. 69 projects in total received some or all points in Leveraging Funds 2, with 7 receiving a 3, 14 receiving a 2, and 2 receiving a 1. Below are some of the comments from the Scoring Committee's scoring rubric that may partially explain the differences in scores.

		Project Application Scores	Scoring Committee Scores
All Projects	Number of Projects	107	107
	Community Investment Score Mean	6.6	5.4
	Leveraging Fund Pt. 2 Score Mean	3.1	2.2
	Total Score Mean	75.3	70.5

Table 3.3. *Leveraging Funds of SCWP Regional Projects, Source: SCWP, 2022*

Scoring Committee Comments - FY 2021-2022

- Stormwater Treatment and Reuse System (STAR System) Hacienda Park
 - “Single letter from a resident. Intent for strong community support is geared more towards community groups.”
- Torrance Airport Storm Water Basin Project, Phase 2 Construction
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 0
 - “Letters are from Cities and the County, and are for a 2016 proposition application, not for the SCW project. Does not meet the intent of the strong community support.”
- Mt. Lowe Median Stormwater Capture Project
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 4
 - “Only letter of support is from a town council”, “Applicant noted the Altadena town council functions primarily as a neighborhood council”, “SC recognizes that more clarity is required by the ROC and District to specify intent for what constitutes Strong Community Support.”
- Fairplex
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 0
 - “Applicant included no letters of support, only a pending letter from the LA County Fair Association. Landowner or business letters of support do not meet the intent of strong community support.”
- FINKBINER PARK STORMWATER CAPTURE PROJECT
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 0
 - “Project includes a letter of support only from a city community service office. As a city department, this does not meet the intent of a strong community support such as a CBO, NGO, or other community group.”

Scoring Committee Comments - FY 2022-2023:

- Salt Lake Park Infiltration Cistern
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 2
 - “One way outreach”
- Salt Lake Park Infiltration Cistern
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 2
 - “One way outreach”

Scoring Committee Comments - FY 2022-2023 Cont. :

- Edward Vincent Jr. Park Stormwater Improvements Project
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 2
 - “Had 3 workshops, 16 letters of support”
- Stormwater Treatment and Reuse System (STAR System) Hacienda Park
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 1
 - “Vague details on community meetings/outreach”, “Only 1 letter of support from resident”
- Bellflower Simms Park Stormwater Capture Project (Construction)
 - Applicant Leveraging Funds 2 Score: 4
 - SC Leveraging Funds 2 Score: 2
 - “No details on outreach”

Type of Support Obtained	Project Count
Government/Municipal	52
Community/Community Based Organization	55
Environmental Non-Governmental Organization	9

Table 3.3. Letters of Support, Source: SCWP, 2022

A main point of confusion was the source of the letters of support, which were ideally composed of letters from Non-Governmental Organizations and Community-Based Organizations. 52 projects added Government and Municipals support to this category. Many groups obtained multiple letters of support from multiple types of organizations. They were only considered by individual types here.

Community Engagement Activities

In this reduced sample size, 40 projects received a 4.

Level 1: Informing- These groups performed one-way outreach through fact sheets, informational meetings, and websites/social media platforms,

	Number of Projects	Percentage of 4 Projects (40)	Percentage of Total (77)
Present	44	110.0%	57.1%
Future	7	17.5%	9.1%
Total	51	127.5%	66.2%

Table 4.4. Level 1: Informing
Source: SCWP, 2022

Level 2+: Consulting- These groups had documented meetings, surveys, polls, and other programs that solicit feedback from the community,

	Number of Projects	Percentage of 4 Projects (40)	Percentage of Total (77)
Present	21	52.5%	27.3%
Future	11	27.5%	14.3%
Total	32	80.0%	41.6%

Table 3.5. Level 2+: Consult:
Source: SCWP, 2022

CBO Collaboration- These groups collaborated with a CBO, with a CBO either listed as an official partner or were noted as heavily involved in the project development process,

	Number of Projects	Percentage of 4 Projects	Percentage of Total (77)
Present	7	17.5%	9.1%

Table 3.6. Community-Based Organization Collaboration
Source: SCWP, 2022

Exceptional Projects

There is no single activity or piece of evidence that guarantees all or part of the 4 points currently dedicated to community engagement in Leveraging Funds 2. In FY 2021-2022, the Scoring Committee seemed to score qualitatively, looking for “strong community support,” which is never explicitly defined, and prioritizing letters of support over activities. Table 5.2 shows that roughly 30% of total projects would meet minimum standards according to the ARLA recommendation, and that community engagement through collaboration with CBOs is exceedingly rare, with only 9.1% of all projects opting to do so. The qualities of some exceptional projects are outlined in the infographic below, in order to assess the strategies they use.

<p style="text-align: center;">Altadena Mariposa Green Street Demonstration Project</p> <ul style="list-style-type: none"> -20+ events -40 total letters of support -Collaboration with business owners -wide variety of letters of support (Schools, CBOs, environmental non-profits, Boy Scouts) - “Significant number of letters of support. Exemplary community outreach and engagement” - Scoring Committee 	<p style="text-align: center;">Broadway-Manchester Multi-Modal Green Streets Project</p> <ul style="list-style-type: none"> - Engagement ongoing since 2016 - Response to long-lived community need for safer streets - Residents selected the site - Wide community involvement (neighborhood councils, schools, CBOs and environmental non-profits) - “Very good example of a community project” - Scoring Committee <p>Spectrum Score: 4 / 5</p>
<p style="text-align: center;">Merced Ave Greenway (Phase I - South Residential Corridor)</p> <ul style="list-style-type: none"> -Ongoing engagement throughout design phase since 2015 -Collaboration with two non-profits, CBO Active SGV and Climate Resolve - Dates of tabling events, pop ups, and meeting attendance provided (18 total) 	<p style="text-align: center;">Urban Orchard Project</p> <ul style="list-style-type: none"> -39 total community meetings, focus groups, tabling at events -Bilingual Community Outreach in residential areas -Community input on site selection -Specific collaborators listed, displaying a variety of community involvement (From Lot to Spot, mobile home park, Tongva elders, SELA)

Figure 3.2 Projects with exceptional community engagement

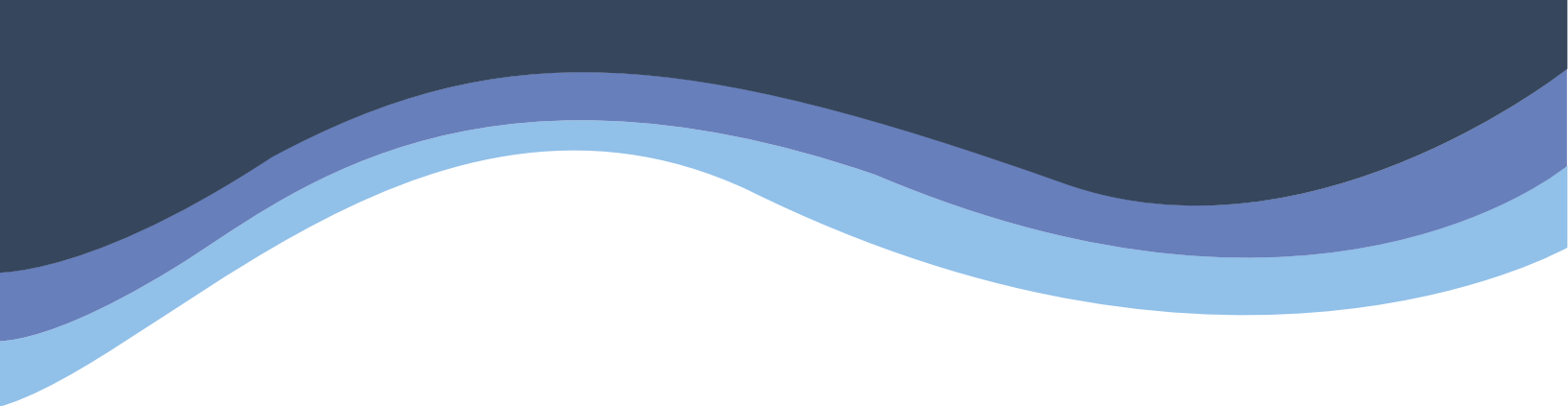
Discussion

There is a clear disconnect between applicant Leveraging Funds Pt. 2 scores and Scoring Committee assessments. The average Leveraging Funds Pt. 2 SC score is 0.9 points less than the Applicant score. While this shows that there is still confusion for applicants in how exactly to get their scores, it also shows due diligence in the scoring committee. They are willing to dock points when they feel that an application is not up to par on their scoring.

Notably, "exceptional project" leads had access to two main resources: time and CBO connections. The Broadway-Manchester and Merced Avenue Greenway projects had been in process since 2016 and 2015, 2-3 years before Measure W was passed in 2018. This gave the project time to conduct a large number of meetings necessary for quality community engagement. Additionally, projects such as the Merced Ave Greenway and Urban Orchard Project were able to collaborate with CBOs such as ActiveSGV and From Lot To Spot in order to conduct their community engagement events. This is valuable and encouraged, but we suspect that time and staffing may limit CBO collaboration as well. CBOs are often non-profits that may not be able to devote staff or networks to assist in a project that has yet to secure funding. Future research would involve connecting with these CBOs and project leads, in order to better understand the barriers to community engagement.

Dr. Kirsten Schwarz, UCLA associate professor, and scoring committee member corroborated our concerns about time. She noted that the scoring committee has gradually become more strict regarding Leveraging Funds 2, and this is evident in the comments we noted from the Scoring Committee. FY 2021-2022 is almost entirely focused on letters of support, while FY 2022-2023 is focused on evidence of community meetings, including dates, meeting minutes, and pictures. There is hope that the number of projects completing high levels of community engagement will go up, as more and more projects have time to invite community members to participate in the democratic process.

Dr. Schwarz also noted that all project leads are mandated to attend an introductory meeting, which likely involves community engagement advice. We are unsure what community engagement advice is given at these meetings, so we can not fully conclude if community engagement expectations are properly communicated to them. In the future, this meeting could be a critical area of providing assistance to teams in developing their community engagement strategies. She also directed us to important people such as Bruce Reznik, head of the scoring committee, who is actively looking for community engagement example projects and resources to provide to the lead. We were unable to contact him during the course of the project, but he would be a valuable future resource, as well as other ARLA report authors. Future research should evaluate the projects in the future fiscal years, to determine if SCWP 2022 Interim Guidelines provided sufficient guidance on community engagement or if other support or incentivization is needed.



Ultimately, we decided that the scoring committee was doing their best to ensure that good quality community engagement was happening, and was also understanding of the time and resources necessary to create good quality engagement, but it was clear that more clarification and assistance could be provided to project leads and communities, allowing better quality community engagement.

Recommendations

Adopt ARLA Working Group Recommendation 8: Clarify Scoring for Engagement, ARLA Working Group Recommendation 5, Create Community Engagement Program, and ARLA Working Group Recommendation 7: Connect Community Engagement to Technical Resources Program

There is a discrepancy between project lead applicant assessments of community engagement and scoring committee assessments due to unclear standards for project leads regarding acceptable letters of support and an uncertain amount of detail necessary for outreach, as well as ambiguity surrounding the 4 point designation. ARLA's recommended 10-point model gives adequate weight to community engagement, provides more incentives, and exact examples of what allows a project to obtain points. Furthermore, it imposes a minimum level of community engagement, promoting equity. We recognize the time and connections necessary to achieve the minimum levels of community engagement for both project leads and Community Based Organization participation, leading us to the next recommendation. To support projects in achieving high Leveraging Funds 2 Scores, SCWP could also adopt ARLA Working Group Recommendation 5, Create Community Engagement Program, and ARLA Working Group Recommendation 7: Connect Community Engagement to Technical Resources Program. We reiterate the DAC Community Recommendation for a Community Engagement program, allowing communities with limited resources to create better projects and stronger project applications.

Combine Scoring Committee Scores and Project Proposal Scores into One Accessible Database

As a team that desired to clarify the meaning of “strong community support” as well as trying to collect project scores for analysis, we were required to access over 100+ separate project proposal PDFs and 25+ meeting minutes from the scoring committee. The Scoring Committee and Kirsten Schwarz have both acknowledged the potential of different SCWP to serve as a model for community engagement, and having the information on past projects readily available could be a key resource for project leads. The SCWP website already has the infrastructure available in its Project Library and Spatial Data Library, though the program would need to update it every Fiscal Year.



4. NATURE-BASED SOLUTIONS & GREEN INFRASTRUCTURE



UTILIZATION OF GREEN INFRASTRUCTURE WITHIN PROPOSED PROJECTS

Introduction

Nature-based solutions' or 'green infrastructure'(GI), is a combination of natural (green) and artificial (gray) systems that target specific resiliency goals. It incorporates products, technologies, and practices that use ecological or engineered systems that mimic natural processes. Green Infrastructure is not only used for stormwater capture benefits, but it also drives improvement in health and provides amenities like parks that enrich biodiversity and cultural opportunities (Staddon et al. 2017). It is an opportunity to bridge environmental and social health and connect people back to nature. This is why we felt the need to research how well the proposals incorporate community engagement in their Green Infrastructure considerations. The stormwater management ability of a GI project is just as reliant on the social aspect as it is on the physical location and environmental surroundings (Vogel et al. 2015). Strategic engineering is necessary but not sufficient enough in itself to facilitate the resiliency necessary to combat climate change. Inclusivity and appropriateness should be the guiding principles in a successful resilience strategy as it is important to include all citizens that could be at risk through disability, cultural, ethnic, religious, socio-economic, and psychological circumstances. This is why question 1. Below is a recommendation to ask for elaboration within proposals so that benefits of GI can be maximized.

Appropriateness means that the GI project aimed at increasing a city's resilience to climate change must be tailored to local needs, capacity, and ability, rather than merely imposing a streamlined plan from "outside" (Staddon C, 2017). When the social life cycle of a project is not assessed properly, environmental greening will cause gentrification in the project area. That is why it is crucial to ensure GI systems are designed to incorporate inclusion, equity, and social and physical impacts to ensure their success (Byrne 2012). We propose that decision making with GI projects can be improved and rendered more equitable by engaging with citizens and stakeholders. We recommend utilizing social impact analysis when planning a project as this will allow for more long term and overarching benefits to people and the environment through the Green Infrastructure programs. Our goal is to evaluate the performance of nature-based solutions, as multipurpose infrastructure, and assess how well they perform while addressing community needs.

In this chapter we ask whether the nature-based solutions proposed will accomplish the goals set forth by the SCWP. First, we assess the SCWP scoring method for nature-based solutions, and then explain how to efficiently assess these methods for the greatest impact on water infiltration and quality while addressing community needs.

Additional Questions For Consideration

We have developed additional questions to incorporate into project proposals. Often, proposals include broad statements to address GI without providing s data or solutions. In the section below, we address common problems as well as our suggestions and solutions to improve the quality of GI in projects. Using these questions and recommendations, we aim to better represent the impact of Nature-Based Solutions within the scope of the specified project.

GREEN INFRASTRUCTURE

Question 1:

What service or recreational properties does the community want with regards to Green Infrastructure and how does the proposed project compliment that? Does it co-create a space for environmental and community connections?

TREES

Question 2:

What will the vegetation density be and how many trees will be taken out and or planted? Are there any other mechanisms for a shade that will help with the Urban Heat Island effect?

Problem:

The criteria to get points for Nature Based Solutions can be too broad and not detailed enough for the scoring committee to make a proper assessment. A proposal can simply say they will plant trees and native shrubs and that is their “Nature Based Solution.”

Solution:

Native plants are great and planting trees is amazing, but they need to quantify the scope of this utilization for the scoring committee to properly understand the impact it will have.

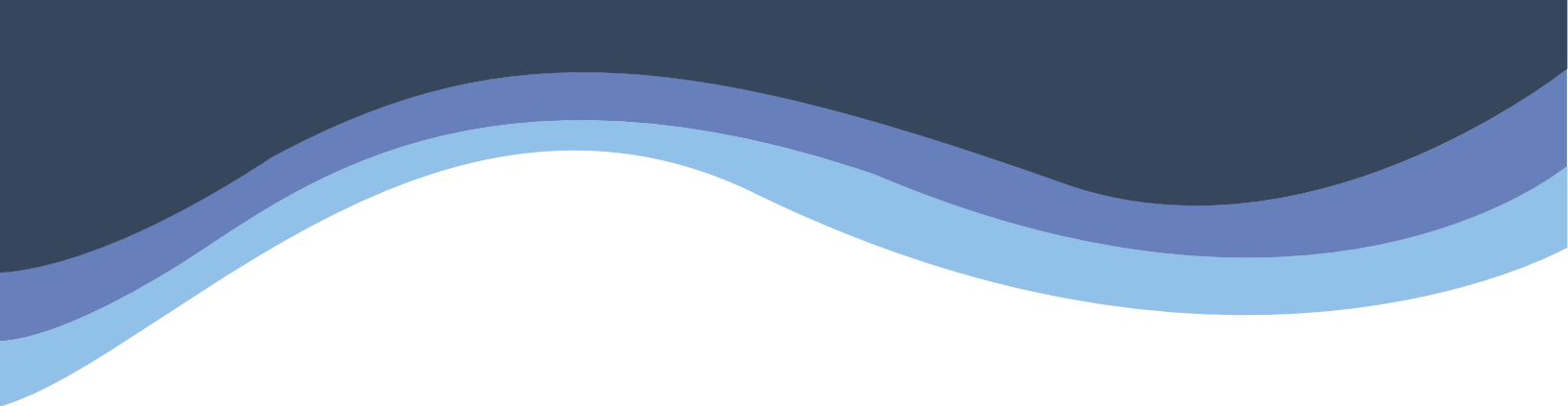
The scoring committee needs to know the number of trees being removed and visuals of how the trees will be arranged, as well as a species list.

SOIL

Question 3:

Does the soil composition and water table depth at the project site compliment the chosen method of Green Infrastructure for infiltration?

Feasibility studies for stormwater infiltration systems consist of checking how far they can: (i) protect against flood risks, (ii) conserve soil and groundwater quality, and (iii) prove long-lasting both physically and socio-economically. The soil type in a particular area is crucial when deciding upon a certain infiltration method at a project site. It would be beneficial to the success of the project to make sure soil type and water table depth has been assessed in an analysis of the best green infrastructure method for that project location.



Drywells are used very often in the proposals as a method of groundwater recharge, in areas facing severe drought or have high volumes of precipitation. Drywells provide a direct link between the land surface and the vadose zone sediments, bypassing the soil horizons that would normally act as a natural filter of contaminants. When drywells are charged with contaminated water, it can be a potential cause of ground-water contamination when placed near polluted locations. The density of the soil is very important because if it is too dense the water will not infiltrate, so assessing the soil where the dry well is going to be placed is crucial to reduce the risk of flooding or foundational damage from soil saturation (Emily C. Edwards, 2016). Gravity favors infiltration downwards, so if the gallery is too close to an impervious layer or the water table it can also cause flooding and stagnant water which leads to disease and insect proliferation.

MAINTENANCE

Question 4:

What is the maintenance schedule of the proposed green infrastructures like infiltration wells and gravel trenches?

Stormwater infiltration systems are used to control large volumes of polluted, urban runoff and improve its quality, but their tendency to clog can cause problems if the system is not maintained. If an infiltration gravel trench is not cleaned, it will clog within two years and render the infiltration method obsolete (N.R. Siriwardene, 2007). The time for a system to clog depends on the type of impervious areas it resided. Clogging occurs at the interface between the filter media and surrounding soil and clogging will be more rapid in systems that regularly fluctuate between being empty and full. Infiltration in areas of drastic water volume changes will need to be monitored more closely and cleaned more often. The efficiency of stormwater infiltration systems depends on the management of the clogging layer at the filter/soil interface. If a nature-based infiltration system operates with a constant water level, a plug of sediment forms around this water level. This causes a reduction in the sediment that reaches the interface and therefore slows the clogging process. If systems could be operated with a minimum constant water level above the base (e.g. by constructing them downstream of major storage or detention basin), this will prolong their lifespan and make them more effective in urban water outflow capture (N.R. Siriwardene, 2007). Pretreatment before entering a dry well, like sedimentation chambers and vegetative pretreatment systems was shown to reduce the clogging rate of stormwater infiltration systems, thus maintaining their functionality for longer periods and allowing them to continually provide beneficial stormwater runoff management and aquifer recharge (Emily C. Edwards, 2016). If maintained, drywall could be used functionally for more than 70 consecutive years (Chen et al., 2007).



SCWP PROJECT ANALYSIS

Methods

In order to assess the legitimacy of green infrastructure within Measure W's projects, we analyzed between 40 and 50 projects (their executive summaries, project scoring data, and other project-specific documents – all available through the SCWP). We focused on the projects from the Fiscal Year (FY) 2021-2022 because the most recent year of funded projects demonstrates the scoring committee's most recent trends for approving project funds. We used data from official SCWP scoring as well as our own calculated scoring of green infrastructure implementation between these projects. This was done in order to compare the SCWP's overall scoring of these projects with the level of green infrastructure within them.

Our final deliverables were two graphics depicting the FY 2021-2022 Measure W program projects. One focused on four main projects of varying green infrastructure levels while the other depicts the acreage green infrastructure implementation across Los Angeles County and the nine watershed districts in Los Angeles. The first one is an in-depth discussion of benefits through all the acts and creates general commentary around the subject.

Results

Our in-depth analysis of four varying projects revealed that green infrastructure implementation is mainly dependent on project-specific goals rather than SCWP scoring incentives. Many funded projects will sacrifice either water quality/quantity or nature-based solutions depending on the intention of each project. The Carson Stormwater Capture project, for example, has immediate positive impacts on water quality and quantity for the local area despite a lack of nature-based solutions and environmental longevity. Aside from a few projects that excel within both water impacts as well as green infrastructure implementation, the most recent SCWP scoring trends show no real intent to fund projects without strong water or green infrastructure impacts.

Looking at Measure W from a more broad perspective demonstrates similar results. We calculated an average Green Infrastructure score of 2.28/5, and the average SCWP score of 70.7/110 shows how the most recent scoring criteria do not have appropriate incentives for implementing green infrastructure within its projects. Most of the projects that show low green infrastructure scores compensate with impressive water quality and quantity scores across the board, which emphasizes the reality that SCWP scoring prioritizes immediate water quality/quantity impacts rather than environmental longevity within its projects.

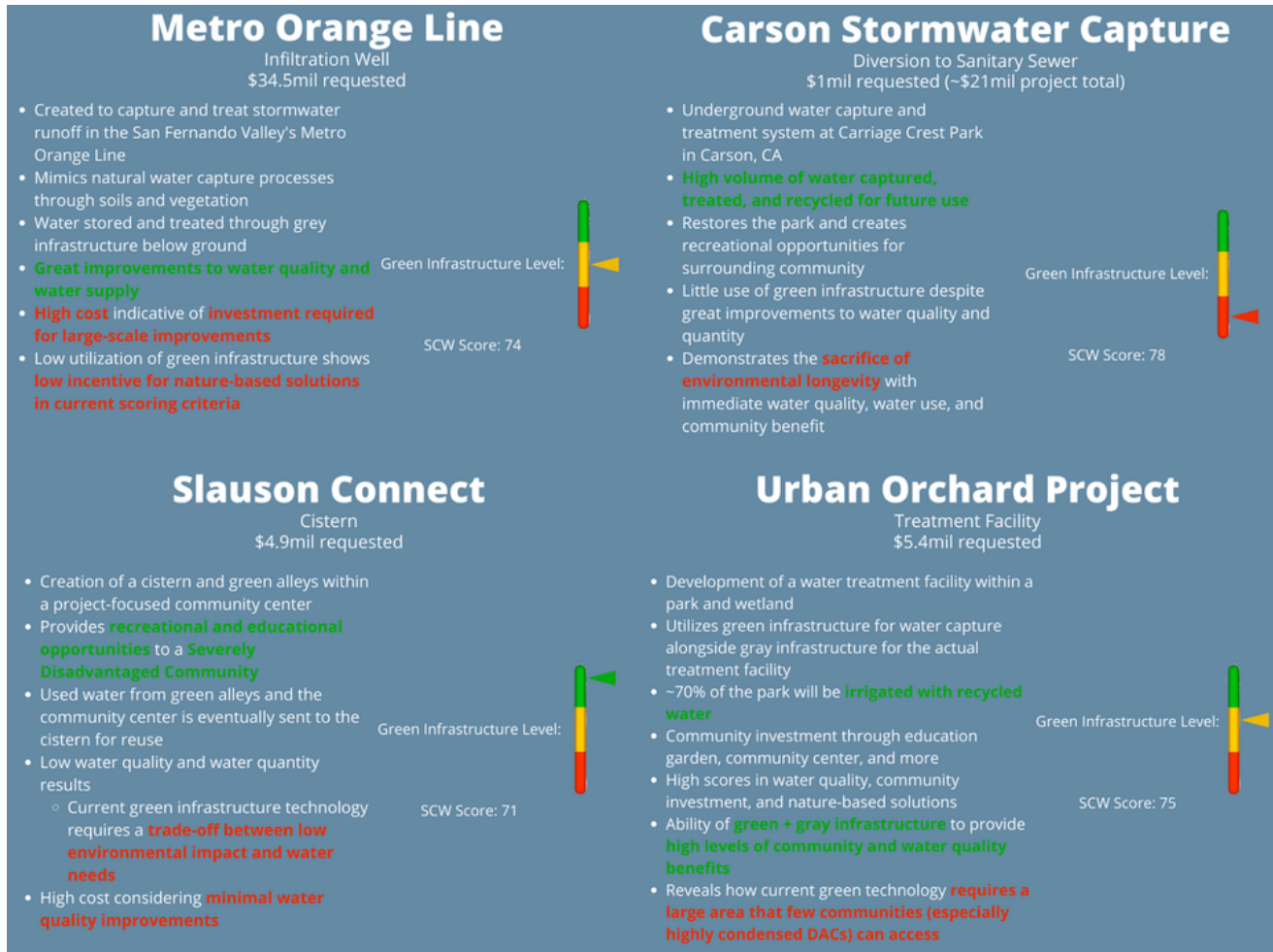


Figure 5.1 In-depth analysis of benefits and drawbacks for four varying projects from SCWP FY 2021-2022

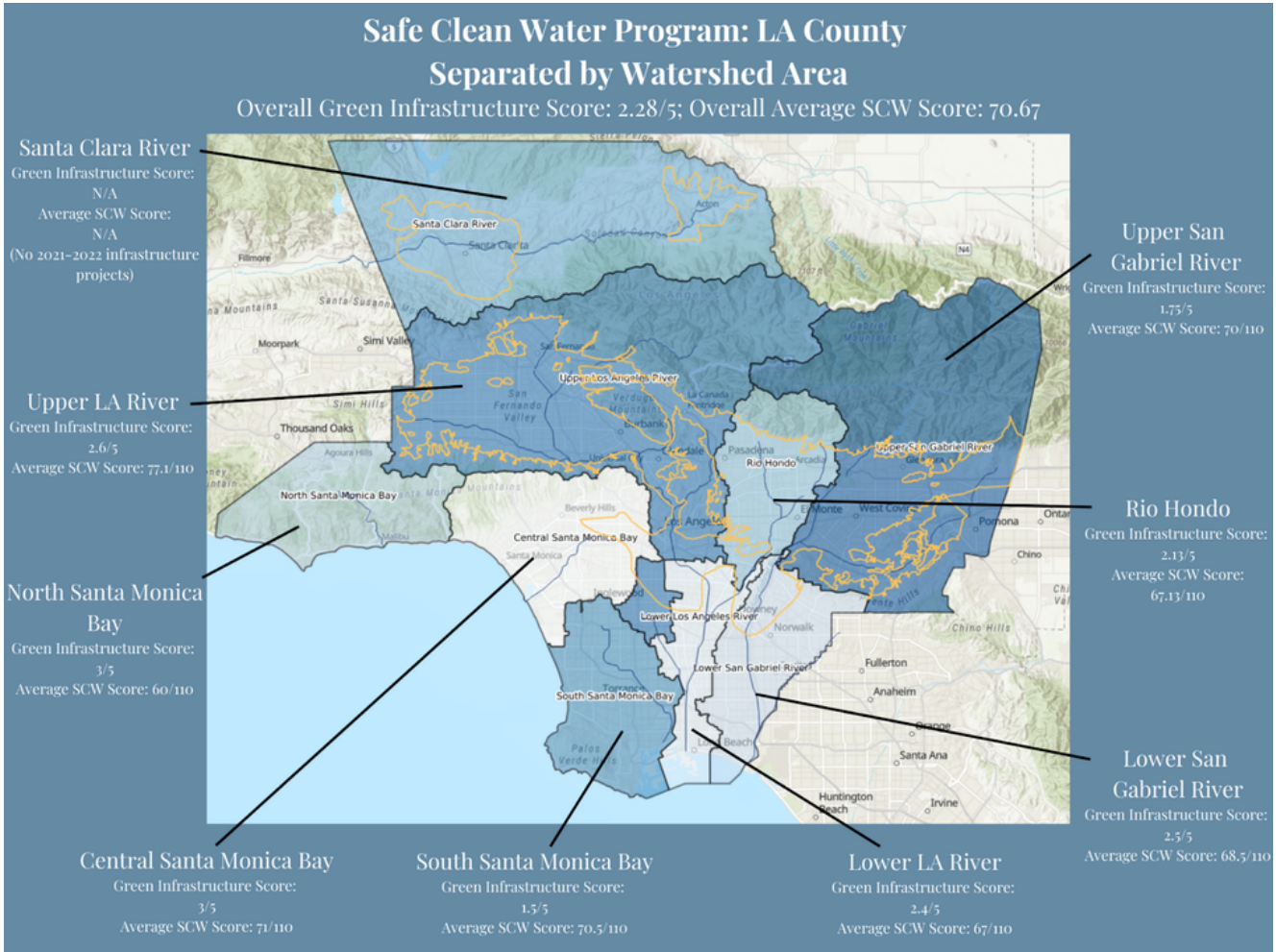


Figure 5.2 General analysis of the nine watershed areas in LA County



Methods

Based on our analysis, we found that there are very few incentives within Measure W to implement green infrastructure, and the most successful projects within the program balance both green and gray infrastructure. Low levels of green infrastructure across the board are indicative of issues with SCWP scoring and the current state of innovation in green infrastructure technology.

A great example of this is the Urban Orchard Project, which uses gray infrastructure to treat and store water that is captured by means of natural processes throughout a public park. Due to its great ecological, water quality, and water quantity results, experts tout the Urban Orchard Project as one of the most impactful Measure W projects to receive funding. Despite that, however, it only received a modest SCWP score of 75. This underlines the lack of importance of nature-based solutions in SCWP scoring, which is likely why projects have little motivation to implement green infrastructure unless it adds direct benefits to the project's form or function.

Another notable project is the Slauson Connect Cistern and Community Center, which implements high levels of green infrastructure (natural water collection processes and green alleys) but fails to deliver impressive water quality and water quantity results. This is reflected in their modest SCWP score of 62. Comparing Slauson Connect and the Urban Orchard Project also brings up the issue of how current green infrastructure technologies (permeable surfaces for natural water collection) need large amounts of space in order to make significant contributions to water quality and quantity goals. This space requirement is not a luxury that many areas in Los Angeles (especially disadvantaged communities) can utilize. In the coming years, we hope that green infrastructure can advance to innovate new technologies that address this issue.

Recommendations

Revise Project Proposal Questions Regarding Green Infrastructure to Emphasize Community Engagement

The effectiveness of Green Infrastructure relies on the impacted communities' participation in its planning and utilization. There needs to be a shift towards co-production of a proposal with green infrastructure and community. For these reasons, there should be an incorporated question in the proposal about what the community is interested in having. (ex: natural gardens, kind of landscaping, natural areas left alone, etc.)



Questions to be Implemented Into the Project Proposals:

1. What service or recreational properties does the community want in the region of Green Infrastructure and how does the proposed project compliment that? Does it co-create a space for environmental and community connections?
2. What will the vegetation density be and how many trees will be taken out and or planted? Are there any other mechanisms for a shade that will help with the Urban Heat Island effect?
3. Do the soil composition and water table depth at the project site compliment the chosen method of Green Infrastructure for infiltration?
4. What is the maintenance schedule of green infrastructure like infiltration wells and gravel trenches?



5. ANTI-DISPLACEMENT POLICIES



PREVENTING GREEN GENTRIFICATION

Introduction

When these multimillion dollar projects are built in particularly poor neighborhoods, it can cause the value of the homes to rise which can render a current tenant unable to keep up with the increase in price of the area. This is known as Green gentrification, and by definition it is the process by which environmental greening leads to increases in local desirability. This then creates an environment that breeds the exclusion and displacement of the politically disenfranchised. While environmental improvements tend to benefit residents by increasing their quality of life and reducing exposure to toxic pollution, it subsequently raises property values which prices out economically vulnerable residents. Poor people are already disproportionately impacted by pollution and dirty environments, so when this is cleaned up and property value goes up, they cannot afford to live in their homes anymore and are replaced by newer, wealthier residents—starting the cycle of displacement and gentrification. This is why we looked into anti-displacement policies and investigation within the proposals to see if the SCWP is addressing this problem.

Methods

One way in which we are able to predict what is going to happen when Measure W projects begin to roll out is by looking elsewhere in the country. Throughout the United States, there have been numerous environmental planning agendas implemented to increase the inclusion of nature based solutions. These agendas are filled with green infrastructure projects that are both effective and economical—such as restoring wetlands or creating a multipurpose park rather than funding a new water treatment facility. Going through numerous case studies and academic journals, we were able to look through these agendas to find projects similar to those proposed through Measure W and analyze how they have affected their communities. We were then able to sort through where each of the projects was located, what their intentions were, if/why it was successful, how they impacted the community they intended on helping, and how MeasureW can learn from them.

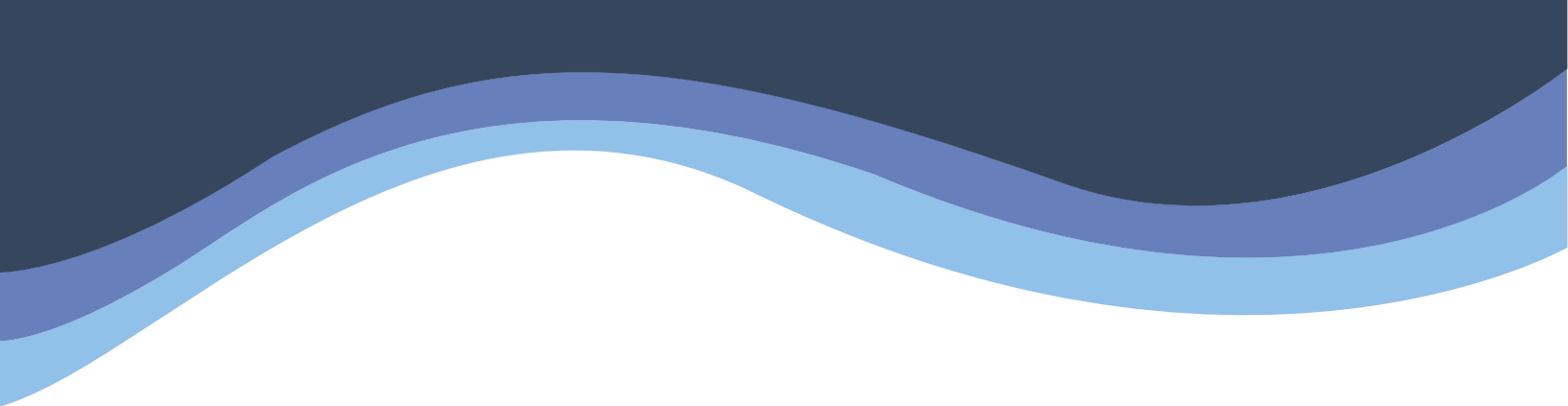
Results

According to our research, there has been a large variety of strategies employed around the country in an effort to mitigate the issue of displacement. While there is no perfect, easy solution that works for every project in every state, there are some strategies we can employ to ensure the greatest success. Before beginning a project, those in charge of building and funding must consider the implications of their proposal and recognize how it may alter property values. If it is going to drastically raise the housing prices then it may not be in the best interest of the community. Community engagement is crucial for the success of a project and the



implementation of anti-displacement policies. It is vital to the success of the project that at the beginning stages there is a large effort made to gather support from those who live around the area and from community-funded organizations. Projects that focus on equity-oriented efforts tend to lead the way when it comes to being conscious of affordable housing, job creation, and support for community members. All of which have proven to be a factor in whether a project was successful or not. In New York, one of the first projects of its kind was created. The “High Line” project was intended to repurpose a piece of abandoned railroad and turn it into a public space that is home to a diverse suite of public programs, teens engagement, community efforts, artwork, and performances- free for anyone. This rail line is now a 1.45-mile-long greenway featuring 500+ species of plants and trees. While it has been praised as a success story in regards to being a “trojan horse” of parks projects, it helped to identify the housing issues that come along with urban redevelopment. These issues then went on to be known as “The High Line Effect.” Ultimately this project gentrified the neighborhoods and displaced community members that it had intended to benefit. Properties within a 5 minute from the park saw a 103% property value increase between 2003 and 2011 and only 7% of users are latino or black, despite their large presense in the community before the High Line Project commenced. In Atlanta, Georgia, there was a widely known “urban redevelopment” project called “the Beltline.” This project was headed by Ryan Gravel and transformed a former another industrial rail line into a linear park near the northwest side of the city. The Beltline was actually inspired by the success of the High Line project, but much like it, the project created more issues of displacement. From 2011 to 2015, in some segments of the Beltine, the property values of home within a half-mile radius rose from 17.9% to 26.6%. Gravel had dreams of what it could be, but issues of rising housing prices and gentrification forced him to reevaluate and step down. “There’s not one thing we need to do around affordability, there are 30 things that we need to do, the problem is not that we don’t know what to do. It’s that we need the political will to do it,” Grave stated when he resigned. In the summer of 2018, protesters picketed downtown Atlanta, calling out the rising cost of housing near the Beltline. At the time of its founding, the Beltline committed to creating 5,600 units of affordable housing by the time it was finished, but sadly, as of 2017 they had only funded 785, according to the Atlanta Journal-Constitution. In Chicago, the 606 project was created in Logan Square, a neighborhood that at the time had the least amount of open space per capita in Chicago. It was another version of the High Line project that ended up ignoring the notorious “High Line Effect.” The abandoned rail line turned multipurpose park unsurprisingly caused housing prices to soar in minority neighborhoods such as Humbolt Park and caused a mass wave of gentrification. Throughout the country, there have been numerous other projects who have emulated the High Line and Beltline project, but all seem to have failed in regards to the communities they intend to help and bring resources to.

While many projects have not learned from each other, there are some who have began prioritizing displacement issues. The El Paseo Trail Project is was a proposed path and multipurpose greenway that connected Latino neighborhoods that began with the intention of earning from the failures of the 606 and High Line projects. They received praise from the



community members as they are listening to the community and timing time to figure out what safeguards to implement in order to allow the current communities to benefit. On the El Paseo Trail website when asked about this issue, they state, “The primary focus of the trail should be the surrounding residents in Pilsen, Marshall Square, and Little Village. The trail will also serve regional users, but should be designed in coordination with the Department of Housing to prevent displacement of long-term residents.” By sourcing out opinions to experts, they are able to properly mitigate the issue of displacement before it occurs. They are learning from past consequences. In Los Angeles, the Urban Orchard project was proposed as a multi-benefit park along the LA River in Southgate. This park would have an integrated dry weather run off treatment facility to benefit the communities it is near. These communities are extremely disadvantaged with a high percent of the population being unemployed and nearly 40% having less than high school education. A recent study found that “seven of every ten residents of southeast Los Angeles County have lost their jobs or had their wages cut during the pandemic, and 40% have less than \$500 in savings to help them survive the economic devastation (CalMatters, 06/04/2020.) Having learned from other projects around the country, Urban Orchard was designed with extensive input from the surrounding communities so that it can serve them in the best way possible. While this project is a great example of how the projects and proposals should be designed and built to benefit the residents of Los Angeles, there is no regulation in place mandating that those in charge make the effort to prioritize this or include robust community engagement.

Discussion

In many academic journals, as well as magazine publishings, there has been a mass agreement that these green infrastructure movements are necessary, but in addition to them, the issue of anti-displacement needs to be addressed as these projects often fail the communities. There needs to be enforced policy to mitigate the unforeseen consequences that have been exemplified over and over again. Beginning with mandated extensive research in the early stages of development and strong engagement of the communities they benefit from. An idea based on this for Measure W would be to collaborate with housing advocates such as Los Angeles Regional Open Space and Affordable Housing collaborative (LA ROSAH), much like the creators of the El Paseo Trail project did with the Department of Housing. This organization currently advocates locally for policy changes and can help educate and aid in creating a successful project.

Recommendations

Implement a Requirement of Anti-Displacement Research and Inclusion of Strategies to Avoid Gentrification In Order to Protect the Communities

The implementation of a requirement for anti-displacement and gentrification strategies included in proposals submitted to Measure W. This would act as an insurance to the people who are served by Measure W. By ensuring there is a plan in place for when a project breaks down, we are able to reduce the risk of these issues occurring.



5. CONCLUSION

SUMMARY OF FINDINGS

Conclusion

In conclusion, our team made multiple key findings regarding the equitability, transparency, and legitimacy of the Safe Clean Water Program. Regarding disadvantaged communities (DAC) and equitability, we found that 20 percent of projects providing DAC benefits were more than half a mile away from disadvantaged communities. We determined through geographic analysis that the communities surrounding South Gate, Compton, Long Beach, and Downtown LA are the most disadvantaged communities with the lowest capacity to facilitate change on their own. Thirdly, we found that the existing DAC designation does not fully acknowledge communities that are in high-need of water quality projects, with approximately 57 percent of the DAC-designated areas overlapped with the top 25th percentile of water quality pollution and approximately 9 percent overlap between DAC-designated areas and the top 25th percentile of impaired water bodies within LA County. All of these findings show that Measure W's DAC designation should be expanded to consider proximity, capacity, and community needs beyond low income.

Within the scope of Measure W's community engagement, we determined that there was clear confusion on the preferred source of the letters of support based on the project scoring. Projects consistently scored higher in their Project Application than Scoring Committee Scores in all categories, with a 0.9 point difference in point average for the Leveraging Funds 2. While the scoring committee was not scoring inaccurately, they could always make community engagement standards clearer to project leads. Additionally, strong community engagement is time and network intensive, and is not properly emphasized or supported in the existing program.

In regards to anti-displacement, nature-based solutions, and the stated goals of the measure (water quality, water supply, community investment) concerns, we found an average Green Infrastructure score of 2.28/5 and an average SCWP project score of 70.7/110, show how current scoring criteria lacks appropriate incentives for implementing green infrastructure. It was a clear trend that projects compensated for their low green infrastructure scores with strong water quality and capture scores. Finally, anti-displacement findings determined that there are a variety of strategies employed around the country in an effort to mitigate the issue of displacement. However, project leads need to recognize the potential for property value increase, potentially through community transparency and engagement, in order to prevent anti-displacement as a result of SCWP projects.



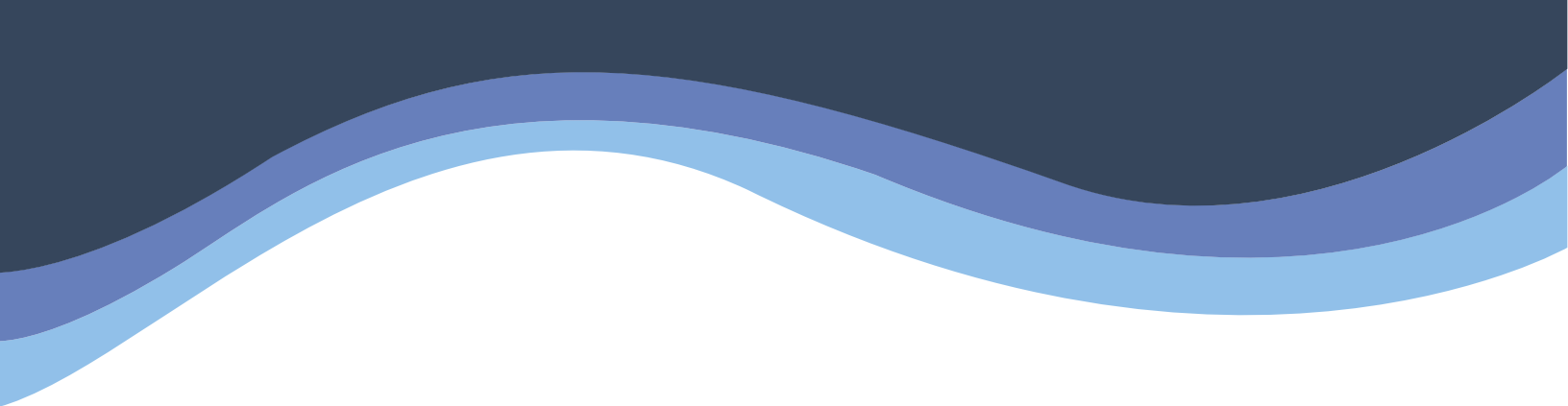
Primary Recommendations

1. Creating a county-wide program to teach community members about city planning, development, zoning, and the burdens their community faces through the lens of city planners and officials.
2. Extend the DAC designation in SCWP to include designation based on CalEnviroScreen 4.0's top 25th percentile of pollution in both water quality and impaired water bodies,
3. Following ARLA's recommendations, emphasize Community Engagement in the Scoring Rubric, and clarify Scoring to provide more direction to project leads,
4. Revise Project Proposal Questions Regarding Green Infrastructure to Emphasize Community Engagement

There are many changes that need to be made in the Safe Clean Water Program, but we have found that it is a robust program with the capacity to make meaningful changes in Los Angeles infrastructure, especially in disadvantaged communities when the Program and projects are given adequate time and resources. The primary limitation of the program is its youth, and we can hope that scoring revisions and clarifications will allow it to flourish with time. Planning, building, and funding infrastructure is inherently complex, even without consideration of environmental sustainability and equitability. However, it is of critical importance for the long-term resilience of Los Angeles to prioritize water quality, capture, and community investments. The true impact of this Measure will be reaped for many decades to come and therefore any and all recommendations and critiques have the potential to pay great dividends.



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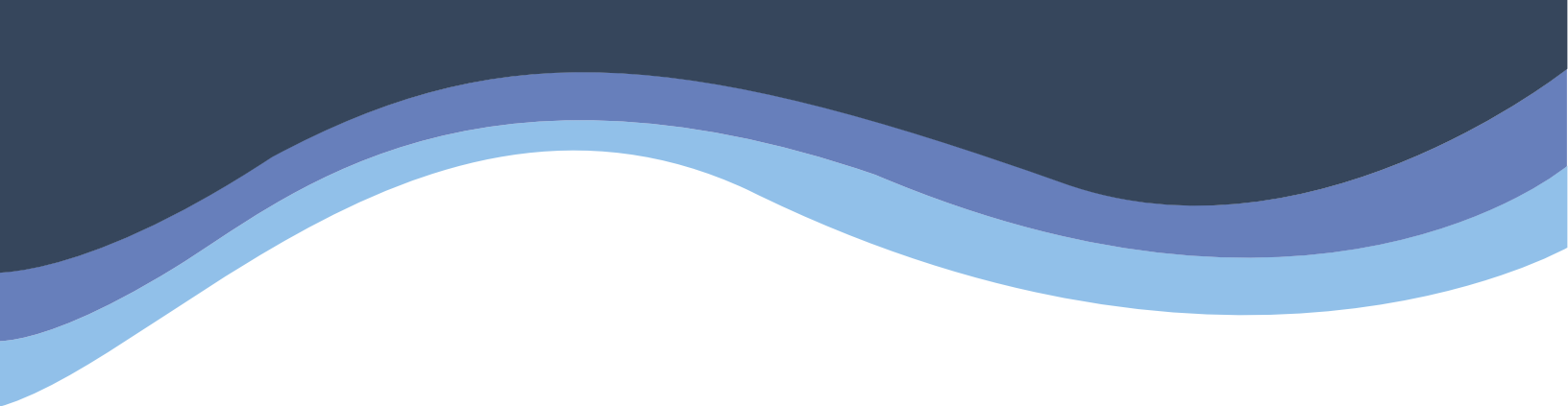
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8. APPENDIX A

APPENDIX A: PRIMARY METHODOLOGY

Introduction

While data collection and analysis were largely specific to individual projects, some resources and databases were created and utilized by multiple members of the team. These are listed below, with further details provided in future chapters.

GIS Mapping and Spatial Analysis

Community demographics are often measured as a percentage of a population within a geographic zone, such as on a city or census tract level. As a measure that emphasized equity, Measure W identifies underserved communities using the Disadvantaged Community (DAC) designation, based solely on income. There are several other factors to consider for disadvantaged communities, including burden according to CalEnviroScreen and racial and ethnic demographics. The spatial relationship between project locations and disadvantaged communities was visualized using ArcMap and QGIS.

Numerous maps were created and extensive data analysis occurred prior to producing the final maps within this report. Each variable for context and capacity was numerically and visually assessed to categorize census tracts into a level of disadvantage on a scale of 1-5. To see these individual maps, and the accumulation of data, visit our interactive web map:

<https://www.arcgis.com/apps/instant/portfolio/index.htmlappid=80181e98a1eb4b8ea2e077e56138a383>

Expert Interviews

Jon Christensen:

Jon Christensen of the UCLA Institute of the Environment and Sustainability, Luskin Center for Innovation, and Center for Digital Humanities is an adjunct assistant professor who has explored the equity metrics of Measure W. He, along with a team of researchers, has been involved in developing a whitepaper and diving deeper into the engagement. As former students of Christensen, we recognized his name on some of the minute's logs and asked if he might be open to reviewing our proposal. Our team was able to set up a meeting with Christensen where we asked him questions about his involvement and opinions on the way Measure W operates. We learned that his research overlapped with ours in many ways which were not only insightful but validating that others have identified similar issues.



Kirsten Schwarz:

As a scoring committee member with the Safe Clean Water Program, Dr. Kirsten Schwartz contributed key insight into the intricacies, strengths, and shortcomings of scoring proposals for funding through Measure W. Schwartz met with our team twice to answer questions that would not be researchable on our own and gave us incredible inspiration and insider knowledge that helped shape the trajectory of our project. Her focus and expertise within the scoring committee are for water quality, community investments, and nature-based solutions, making her interview particularly helpful in our assessment of the utilization of green infrastructure seen in proposals. This allowed our team to come up with recommended changes to the scoring process to better utilize Nature-Based Solutions by increasing the effectiveness of groundwater infiltration and community engagement.

Data Collection- SCWP Regional Project Database

One of our earliest observations was that individual project data was difficult to access. GIS Shapefile data provided simple information such as watershed location, Best Management Practice (BMP) type, cost, and project leads, but proposal scores, both the self-determined ones through the project application and the official ones by the scoring committee, were spread out throughout the Measure's Official Website, in individual project proposals or in Scoring Committee Meeting notes. The compiled data is available [here](#).

Additionally several of us analyzed the project proposal data further, making qualitative judgments about Green Infrastructure levels, and community engagement activities (see Appendix B). These analyses helped us to compile project application and scoring revisions, detailed in the Recommendation section of each of our focus topics.



9. APPENDIX B

APPENDIX B: COMMUNITY ENGAGEMENT ACTIVITIES ASSESSMENT DATABASE

Watershed_C,254	Project_Na,C,254	Leveraging Funds Part 2	Community Workshops/	CBO Collaborators	Outreach	Notes	Proof of Past Engagement (Dates, Images, Attendance Numbers)
Lower Los Angeles River	Spang Park	0 no	no	no	no		
North Santa Monica Bay	Viewridge Road Stormwater Improvements Project	0 no	no	no	no		
South Santa Monica Bay	Stormwater Basin Expansion Project	0 no	no	no	no		
South Santa Monica Bay	Torrance Airport Storm Water Basin Project, Phase 2	0 no	no	no	no		
Upper Los Angeles River	The Distributed Drywell System Project	0 no	no	no	no		
Upper Los Angeles River	Walnut Park Pocket Park Project	0 no	no	no	no		
Central Santa Monica Bay	Ballona Creek TMDL Project	4 Future	no	yes	future but detailed		
Central Santa Monica Bay	Beverly Hills Burton Way Green Street and Water Efficient Lan	4 No	No	Yes			
Central Santa Monica Bay	Culver City Mesmer Low Flow Diversion	4 No	No	Yes			
Central Santa Monica Bay	Ladera Park Stormwater Improvements Project	4 Yes	No	Yes		Yes	
Central Santa Monica Bay	MacArthur Lake Rehabilitation Project	0 Future	No	Future	future everything		
Central Santa Monica Bay	Monteith Park and View Park Green Alley Stormwater Improve	4 Yes	No	Yes		Yes	
Central Santa Monica Bay	Slauson Connect Clean Water Project	4 Yes	No	Yes	survey		
Central Santa Monica Bay	Sustainable Water Infrastructure Project	4 Yes	No	Yes			
Central Santa Monica Bay	Washington Boulevard Stormwater and Urban Runoff Diversio	4 Yes	No	Yes			
Lower Los Angeles River	Compton Blvd Et. Al. Project	0 No	No	No			
Lower Los Angeles River	Furman Park Stormwater Capture and Infiltration Project	0 No	No	No			
Lower Los Angeles River	John Anson Ford Park Infiltration Cistern	0 Yes	No	Yes			
Lower Los Angeles River	Long Beach Municipal Urban Stormwater Treatment (LB MUS)	4 No	No	Yes			
Lower Los Angeles River	Lynwood City Park Stormwater Capture Project	4 Future	No	Yes	future feedback		
Lower San Gabriel River	Adventure Park Multi Benefit Stormwater Capture Project	0 no	no	no			
Lower San Gabriel River	Bellflower Simms Park Stormwater Capture Project	2 Future	No	Yes	future feedback	Yes	
Lower San Gabriel River	Bolivar Park	0 No	No	Yes			
Lower San Gabriel River	Caruthers Park	0 No	No	No			
Lower San Gabriel River	Cerritos Sports Complex	0 No	No	No			
Lower San Gabriel River	El Dorado Regional Project	0 No	No	No			
Lower San Gabriel River	Hermosillo Park	4 No	No	Yes		Yes	
Lower San Gabriel River	Mayfair Park	0 No	No	No			
Lower San Gabriel River	Skylinks Golf Course at Wardlow Stormwater Capture Project	4 No	No	Yes			
Rio Hondo	Alhambra Wash Dry-Weather Diversion	4 No	No	Yes	amigos		
Rio Hondo	Baldwin Lake and Tule Pond Restoration Project	4 yes	no	Yes			
Rio Hondo	East Los Angeles College Northeast Drainage Area and City of	4 No	No	Partial			
Rio Hondo	East Los Angeles Sustainable Median Stormwater Capture Pro	0 No	No	No			
Rio Hondo	Eaton Wash Dry-Weather Diversion	4 No	No	Yes	stakeholders		
Rio Hondo	Mt. Lowe Median Stormwater Capture Project	4 Yes	No	Yes		Yes	
Rio Hondo	Rio Hondo Ecosystem Restoration Project	4 No	No	Yes	CBO		
Rio Hondo	Rubio Wash Dry-Weather Diversion	4 No	No	Yes	stakeholders group		
Santa Clara River	Hasley Canyon Park Stormwater Improvements Project	0 No	No	No			
Santa Clara River	Newhall Park Infiltration	0 No	No	No			
South Santa Monica Bay	Alondra Park Multi Benefit Stormwater Capture Project	0 No	No	Yes	future		
South Santa Monica Bay	Carson Stormwater and Runoff Capture Project at Carriage Cr	0 No	No	No			
South Santa Monica Bay	South Santa Monica Bay Water Quality Enhancement: 28th St	4 Yes	No	Yes		Partial	
South Santa Monica Bay	Wilmington Q Street Local Urban Area Flow Management Proj	0 No	No	No			
Upper Los Angeles River	Active Transportation Rail to River Corridor Project - Segment	0 No	No	Yes			
Upper Los Angeles River	Alladena - Lake Avenue Green Improvement	0 No	No	No	who is sd5	Yes	
Upper Los Angeles River	Alladena Mariposa Green Street Demonstration Project	4 Yes	Yes	Yes	Good		
Upper Los Angeles River	Arroyo Seco-San Rafael Treatment Wetlands	4 No	no	Yes			
Upper Los Angeles River	Broadway-Manchester Multi-Modal Green Streets Project	4 Yes	No	Yes	Good		
Upper Los Angeles River	City of San Fernando Regional Park Infiltration Project	0 No	No	Yes	no real feedback		
Upper Los Angeles River	David M. Gonzales Recreation Center Stormwater Capture Pro	4 Yes	No	Yes		Yes	
Upper Los Angeles River	Echo Park Lake Rehabilitation	4 No	No	No			
Upper Los Angeles River	Fernangeles Park Stormwater Capture Project	4 Future	No	Future	future		
Upper Los Angeles River	Franklin D. Roosevelt Park Regional Stormwater Capture Proj	0 No	No	No	future		
Upper Los Angeles River	Lankershim Boulevard Local Area Urban Flow Management N	0 No	No	No			

Watershed_C,254	Project_Na,C,254	Leveraging Funds Part 2	Community Workshops/	CBO Collaborators	Outreach	Notes	Proof of Past Engagement (Dates, Images, Attendance Numbers)
Upper Los Angeles River	Lincoln Park Neighborhood Green Street Network	0 No	No	No	No		
Upper Los Angeles River	Los Angeles Pierce College Northeast Campus Stormwater Ca	4 No	No	Yes			
Upper Los Angeles River	Metro Orange Line a Water Infiltration and Quality Project	4 Future	No	Yes	future feedback		
Upper Los Angeles River	Oro Vista Local Area Urban Flow Management Project	0 Yes	No	Yes	future		
Upper Los Angeles River	Rory M. Shaw Wetlands Park Project	0 No	No	Yes	stakeholders group		
Upper Los Angeles River	Strathern Park North Stormwater Capture Project	4 Yes	No	Yes	future everything		
Upper Los Angeles River	Valley Plaza Park Stormwater Capture Project	4 Yes	No	Yes	survey, stakeholc	Yes	
Upper Los Angeles River	Valley Village Park Stormwater Capture Project	4 Future	No	Future	future		
Upper Los Angeles River	Westmont - Vermont Avenue Green Improvement	0 Future	No	Yes	future feedback		
Upper San Gabriel River	Barnes Park	0 yes	No	Yes	good	Yes	
Upper San Gabriel River	Encanto Park Stormwater Capture Project	0 No	No	Partial			
Upper San Gabriel River	Fairplex	0 Future	No	Future	future		
Upper San Gabriel River	FINKBINER PARK STORMWATER CAPTURE PROJECT	0 Future	No	Future	future all		
Upper San Gabriel River	Garvey Avenue Grade Separation Drainage Improvement Proj	4 No	No	Future	future		
Upper San Gabriel River	Lone Hill Park	4 No	No	Yes			
Upper San Gabriel River	Pedley Spreading Grounds	4 No	No	No			
Upper San Gabriel River	Wingate Park Regional EWMP Project	0 Future	No	Future	future		
Lower Los Angeles River	Urban Orchard Project	4 Yes	Yes	Yes	focus groups, tab	Yes	
Rio Hondo	Merced Ave Greenway (Phase I - South Residential Corridor)	4 Yes	Yes	Yes	Good - ActiveSG	yes	
Rio Hondo	Plymouth School Neighborhood Stormwater Capture Demonst	4 Yes	Yes	Yes	Amigos		
South Santa Monica Bay	Wilmington Neighborhood Greening Project	4 Yes	Yes	Yes	Good		
Upper San Gabriel River	Bassett High School Stormwater Capture Multi-Benefit Project	4 No	Yes	Yes			
Upper San Gabriel River	Zamora Park Renovation Project	4 Yes	Yes	Yes	Good, workshop,	Yes	
Total Projects with 4 points		40					
Outreach (One-Way)							
	Number of Projects	Percentage of 4 Projects	Percentage of Total				
Present	44	110.0%	57.1%				
Future	7	17.5%	9.1%				
Total	51	127.5%	66.2%				
Outreach (with Feedback)							
	Number of Projects	Percentage of 4 Projects	Percentage of Total				
Present	21	52.5%	27.3%				
Future	11	27.5%	14.3%				
Total	32	80.0%	41.6%				
CBO Collaborations							
	Number of Projects	Percentage of 4 Projects	Percentage of Total				
Present	7	17.5%	9.1%				