Stantec

SCHOOLS AS PROJECT PROPONENTS IN THE SAFE, CLEAN WATER PROGRAM

A Summary of Safe, Clean Water Program Funded and Considered School Projects To-Date

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Los Angeles County Flood Control District

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Project:
Regional Coordination of the Safe, Clean Water Program

1 Background

The Safe, Clean Water Program (SCWP, or Program), administered by the Los Angeles County Public Works Flood Control District (Public Works, PW), supports projects and programs that provide water quality, water supply, and community investment benefits. The PW Program code Section 16.03 explicitly describes the "greening of schools" as one of the available ways for projects to provide Community Investment Benefits.

Revenues from the SCWP are generated from a special parcel tax on private properties in Los Angeles County. Parcels that are exempt from ad valorem property taxes, including schools, are also exempt from this special parcel tax and therefore do not contribute revenue into the program. Regardless, improving school campuses is within the goals of the SCWP ordinance, and developing successful school projects has been central to the first years of SCWP implementation as school districts, municipalities, advocates, and community groups investigate how SCWP goals and funding can align with goals to improve school campuses.

> Of the twenty-six school greening applications, ten (38%) received SCWP funding.

School campuses are distributed across the SCWP funding area of LA County, and efforts to green campuses not only benefit the students, faculty, and staff who spend time at school, but also their surrounding communities. School greening projects, which can include the replacement of asphalt playgrounds with nature-based landscape designs, can provide multiple health benefits to people on school grounds or in neighboring communities. By introducing native plants, removing hardscape, painting black asphalt to reflect heat, or planting shade trees, a school environment becomes one that is physically cooler and emotionally more welcoming[1]. In the Greater LA area, temperatures recorded on playground surfaces often reach around 150 degrees Fahrenheit[2]. For many students who live in park-poor areas, school may serve as the sole opportunity for outdoor recreation and exploration[3]. For community members around the campus, native plants, shade trees, bioswales, and other nature-based solutions can improve air quality, water quality, and unhealthful temperatures beyond school property. Most school campuses contribute stormwater runoff to their surrounding municipalities, which must comply with regulatory permits related to the quality of stormwater runoff that enters streams, waterbodies, or the ocean. The California State Water Resources Control Board, in partnership with Los Angeles Regional Board staff, is considering stormwater permit changes for public school property, with an informal draft permit planned for public review in 2023[4]. Collaboration between school districts and cities can support multiple benefits, among which is regulatory compliance for both entities.

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[1] See this article from 2008 on how greener schools impact the social and physical health of students: J. E. Dyment, A. C. Bell, Grounds for movement: green school grounds as sites for promoting physical activity, *Health Education Research*, Volume 23, Issue 6, December 2008, Pages 952–962, https://doi.org/10.1093/her/cym059

[2] See recent coverage in LA Times and LA Daily News on the need for school greening.

[3] Ibid

[4] See Status Code A-24 on Statewide Phase II Small Municipal Storm Water Permit Reissuance in Significant General Permits for notice of State Board intentions.

2 School Projects as part of the Safe, Clean Water Program

This memo assesses school greening projects submitted to the Infrastructure Program (IP), Technical Resources Program (TRP), and Scientific Study (SS) Programs of the Regional Program of the SCWP to date (fiscal years 2020-2024). Using both the Good, Better, and Best evaluation for community engagement from the 2022 SCWP Interim Guidance[5] and 2022 SCWP Metrics and Monitoring Study "Equity in Stormwater Investments" report[6], a review of information provided by the school campus projects related to project design and community engagement was conducted. Patterns about shared project characteristics and project evaluation were documented. This analysis identified commonalities in the types of projects that are being submitted by schools, the types of benefits they planned to provide, and the extent to which these projects engaged school kids, parents, teachers, and neighbors at the Good, Better or Best engagement level. By reviewing both funded and unfunded school projects and looking at application language used by school project proponents, some patterns emerged that may identify where technical assistance and program guidance is needed. Findings herein can inform the development of SCWP's School Education and Public Education[7] programs, support watershed area steering committee (WASC) decision-making, and benefit future project proponents.

Figure 1.0 The Greening Index: the context of greened school spaces in Los Angeles County

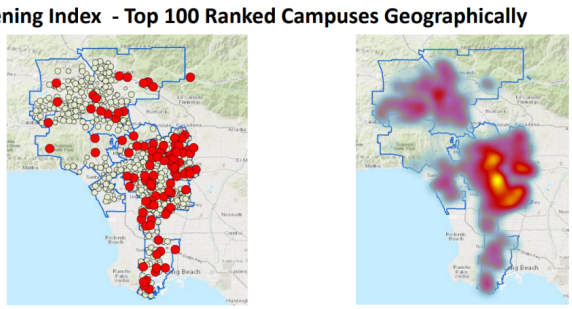


Figure 1.0 Greening Index density and heat map from LAUSD study needs reveals schools with a higher need for green infrastructure in the warmer colors (red, orange, yellow). Source: LAUSD's Greening Index of Schools

A Los Angeles Unified School District (LAUSD) analysis developed a metric on the greening of schools, known as the Greening Index. They combined community-based and campus-specific needs regarding recreation, parks and open space, and the accessibility of those amenities to community members. With these data combined, a park "need level" was assigned to LAUSD campuses. Then, percentages of each campus' impermeable versus permeable surfaces were combined with the park "need level" to identify overall campus greening opportunities. Schools were then provided a Greening Index score that could inform potential projects, where a lower Greening Index score indicates a higher need for green infrastructure and nature-based projects.

[5] SCWP May 2022 Interim Guidance
[6] Equity in Stormwater Investments: Measuring Community Engagement and Disadvantaged Community Benefits for Equitable Impact in the Safe, Clean Water Program report by UCLA and Stantec for the Safe, Clean Water Program Metrics & Monitoring Study
[7] The SCWP Public Education Program will leverage Water for LA, an initiative that educates the public on the importance of water in Los Angeles County

3 Summary Methods

To investigate how school project proponents relate green infrastructure to education and outreach in schools, an analysis of language from both funded and unfunded project applications was conducted. Project proposals were downloaded from the SCWP Projects Module Portal for both unfunded and funded school projects from fiscal years (FY) 2020-2021, 2021-2022, 2022-2023, and 2023-2024. First, benefits were tracked to supplement the coding information used in the Equity in Stormwater Investments report[8], which only analyzed funded projects that claimed disadvantaged community benefits. The most frequently cited terms used to describe benefits in school project applications were:

- school, recreation, watershed or environmental-specific education, waterway access, green space, shade, greenhouse gas reduction, and the proximity to a disadvantaged community.

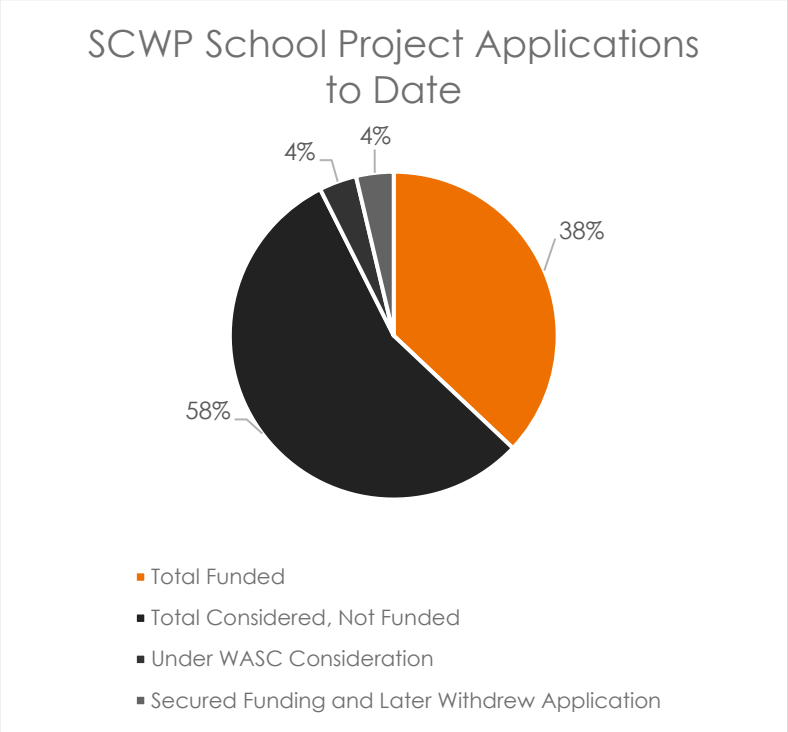


Figure 2.0 - Funded school projects and considered but not funded school projects to-date in SCWP

Once those preliminary data were collected, clauses that included language on outreach, student involvement, and local community engagement were extracted. This was done to understand how school project proponents either had or planned to involve youth and community members into their project plans and determine how school proponents sought to incorporate stormwater projects into educational programming. Each clause on engagement-related planning was then individually identified as representative of either a Good, Better, or Best practice for outreach, informed by the scale for equity, accessibility, and inclusion for community engagement, referencing the practice in the 2022 SCWP Interim Guidance[9].

[8] Appendix B of the Equity in Stormwater Investments report describes the benefits tracked in each funded project within or near a DAC. This analysis expands on that database by providing information for schools that were both funded projects and considered but not funded projects both within, near, and not in DACs.

[9] See SCWP Interim Guidance; This model draws fundamentals from Rosa Gonzalez's Spectrum of Community Engagement to Community Ownership which identifies the stages and steps needed for communities to interact with planning staff to gain agency within their neighborhood in meaningful ways.

A sample of the clauses extracted from a school project that was considered, but not funded is provided below for the Woodlake Elementary School Low-Impact Development Project in FY 2021-2022. Located in the Upper Los Angeles River watershed, this project requested $1,006,629 and claimed to be within 2 miles of a disadvantaged community as defined by census block groups.

Relevant clause from the application	Good, Better, or Best
1. "…educational interpretive signage along pathways, increases green space, reduce heat island effect, shaded areas, and adds educational and recreational spaces."	Good
2. "School enhancements and outreach alleviate low educational attainment which is shown to contribute to high CalEnviroScreen score."	n/a *(educational attainment is not among the metrics of the Interim Guidance)*
3. "…create new green space and recreational areas, provide enhanced educational opportunities and public outreach."	Good
4. "New reading garden area created new outdoor recreational space"	Better

Table 1.0 - Sample of Clause Coding for Good, Better or Best Community Engagement

The example in Table 1.0 above demonstrates that not all the clauses evaluated were relevant to the Good, Better, and Best criteria for engagement. For this analysis, an overall score of "Good" was designated to Woodlake Elementary School's project application as two out of the three clauses that described engagement that were a) relevant for scoring and b) included within the application and not as an attachment.

School projects that were analyzed include elementary schools, high schools, and community colleges in Los Angeles County. Not all projects considered students to be part of the group of community members affected by a project or engaged in its development. Projects that consider students, faculty, and staff as members of the community generally include them in the planning and implementation of a project. Whether the developer of a project perceives students to be beneficiaries of project outcomes, or not, may also influence how WASCs judge the overall impact of a school project.

Of the submitted projects reviewed, the majority were from LAUSD, although there is also representation from Los Angeles Community College District (LACCD) and others. This evaluation did not include projects off or adjacent to school campuses, regardless of how those projects planned for educational or school greening benefits.



4 Discoveries and Implications

Figure 2.0 demonstrates that proponents with school projects perform significantly worse than other entities. With 9 school projects funded out of 25 submissions, school projects have a 36% funding rate amongst themselves compared to a 73% overall funding rate of all applications[10]. *Across the program, this would mean 9 school projects were funded out of the 264 total projects, leaving them with an overall program success rate of 3%.* The school proponents represented across the 9 funded school projects were the non-profits TreePeople and Amigos de los Rios, as well as Los Angeles County, El Monte Union High School District, Pasadena Unified School District (PUSD) who partnered with Amigos de los Rios, LACCD, and The Plymouth School, which is a non-profit educational facility. LAUSD had one successful application that was programmed into the 2021-2022 ULAR SIP (Victory Elementary School). However, LAUSD later withdrew the application because of capacity and administrative concerns, noting it would not be cost effective for LAUSD to satisfy all the grant (funds transfer agreement) requirements[11].
Table 2.0, lists projects currently under evaluation in yellow, successfully funded projects in green, withdrawn applications in gray, and considered but not funded projects in white. Notably, the LAUSD Living Schoolyards SS that TreePeople leads is a study of school greening measures across 10 LAUSD campuses. Additionally, the John Muir High School Emerald Necklace project lists Amigos de los Rios as the primary proponent and is housed on a PUSD campus.

Project Name	Type (TRP, IP, SS)	Watershed	Year	Funding Status	Proponent	Funding Requested
El Monte Norwood Elementary Stormwater Capture Project	IP	Rio Hondo	FY24-25	Accepted, Funded	Trust for Public Land	$ 8,753,600
Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project	IP	ULAR	FY23-24	Accepted, Funded	Amigos de los Rios	$ 1,891,500

[10] See LA Waterkeeper's assessment of the first three rounds of the SCWP Regional Funding Program. With 127 funded and 53 considered and not funded Infrastructure Projects, 18 accepted and 8 considered but not funded Scientific Studies, and 49 accepted and 9 considered but not funded Technical Resources Projects, there is a 73% project acceptance rate.
[11] See Meeting Minute Attachment from ULAR WASC Meeting held December 1, 2021



Project Name	Type (TRP, IP, SS)	Watershed	Year	Funding Status	Proponent	Funding Requested
Jackson Elementary School Campus Greening and Stormwater Quality Improvement Project	IP	ULAR	FY22-23	Accepted, Funded	Amigos de los Rios and Pasadena Unified School District	$ 3,018,148
LAUSD Living Schoolyards Program Pilot Study	SS	ULAR	FY21-22	Accepted, Funded	TreePeople	$943,379
East Los Angeles College Northeast Drainage Area and City of Monterey Park Biofiltration Project	IP	Rio Hondo	FY21-22	Accepted, Funded	Los Angeles Community College District & BuildLACCD	$ 532,618
Los Angeles Pierce College Northeast Stormwater Capture & Use and Biofiltration Project	IP	Upper Los Angeles River	FY21-22	Accepted, Funded	Los Angeles Community College District & BuildLACCD	$5,243,675
Plymouth School Neighborhood Stormwater Capture Demonstration Project	IP	Rio Hondo	FY21-22	Accepted, Funded	Amigos de los Rios	$ 559,162
South El Monte High School	TRP	Rio Hondo	FY21-22	Accepted, Funded	Lena Luna	$300,000
Bassett High School Stormwater Capture Multi-Benefit Project	IP	USGR	FY20-21	Accepted, Funded	Los Angeles County	$31,200,000

Project Name	Type (TRP, IP, SS)	Watershed	Year	Funding Status	Proponent	Funding Requested
Pasadena Unified School District Campus Green Infrastructure Development Project	TRP	Upper Los Angeles River	FY20-21	Accepted, Funded	Amigos de los Rios	$300,000
Victory ES – DROPS	IP	Upper Los Angeles River	FY21-22	Accepted, Funded and Later Withdrawn	Los Angeles Unified School District (LAUSD/District)	$ 178,585
Monrovia Unified School District Campus Green Infrastructure Development Project	TRP	Rio Hondo	FY20-21	Considered, Not Funded	Amigos de los Rios	$ 3,070,576
Venice High School	IP	Central Santa Monica Bay	FY20-21	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 5,893,250
Normandie Ave ES – DROPS and Paving	IP	Central Santa Monica Bay	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 5,213,778
Webster MS – DROPS	IP	Central Santa Monica Bay	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 1,632,382
Venice High School Comprehensive Modernization Project	IP	Central Santa Monica Bay	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 6,088,250
West Los Angeles College Soccer Field Basin Dry Well Project	IP	Central Santa Monica Bay	FY22-23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	$ 399,967

Project Name	Type (TRP, IP, SS)	Watershed	Year	Funding Status	Proponent	Funding Requested
Huntington Park High School Storm Water Management System	IP	Lower Los Angeles River	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 1,401,707
East Los Angeles College East Drainage Area Biofiltration and Stormwater Capture & Use Project	IP	Rio Hondo	FY22-23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	$ 2,411,477
Los Angeles Harbor College Central and West Campus Underground Infiltration and Biofiltration Project	IP	South Santa Monica Bay	FY22-23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	$ 3,152,758
Woodlake ES – LID Project	IP	Upper Los Angeles River	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 1,006,629
Northridge Middle School	IP	Upper Los Angeles River	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 1,920,084
Thomas Jefferson High School Comprehensive Modernization Project	IP	Upper Los Angeles River	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 1,980,560
North Hollywood High School	IP	Upper Los Angeles River	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	$ 3,154,945



Project Name	Type (TRP, IP, SS)	Watershed	Year	Funding Status	Proponent	Funding Requested
LAMC South Arroyo Improvement and Deep Underground Infiltration Project	IP	Upper Los Angeles River	FY22-23	Considered, Not Funded	Los Angeles Mission College/BuildLACCD	$ 1,210,433

Table 2.0 - SCWP School Projects, Funding Status, and Funding Amount Requested

Table 2.0 also reveals that out of the considered but not funded projects proponents, 9 were LAUSD and 4 were LACCD. Figure 3.0 illustrates that, of the LAUSD projects that were considered, but not funded, the most applicants were concentrated in the Upper Los Angeles River (ULAR) watershed, followed by the Central Santa Monica Bay (CSMB) watershed. The rest were distributed across South Santa Monica Bay (SSMB), Rio Hondo (RH), and Lower Los Angeles River (LLAR) watersheds. No school projects were in the North Santa Monica Bay, Santa Clara River, Lower San Gabriel River, or Upper San Gabriel River watersheds.

5 Similarities and differences between funded school projects and considered, but not funded school projects

LAUSD is a larger entity, both in population served and the geographic area its campuses cover, than the school districts or other independent school entities with funded projects. According to data based on 2017-2019 school years, PUSD, for example, has an annual budget of approximately $304 million[12] while LAUSD has an annual budget of approximately $9.8 billion[13]. PUSD receives 49% of its revenue from local sources, while LAUSD receives 30% from local sources (as compared to state and federal funding sources). As a result, PUSD budgets approximately $20,000 per student and LAUSD budgets around $21,000 per student, making their budget dollars per student similar despite LAUSD having a larger population of total students. *Schools have historically opted for cost-effective infrastructure that can be maintained with ease and, in many cases, includes asphalt and pavement by default*. The maintenance and upkeep of live plants that can produce pollen, attract animals, and/or create a slip-and-fall hazard is much more costly than rinsing off or patching up asphalt[14]. Contrary to this, in December 2022, the LAUSD Board of Education approved funds for 11 school greening projects to create new sustainable green outdoor learning spaces[15], increasing momentum for school greening projects.

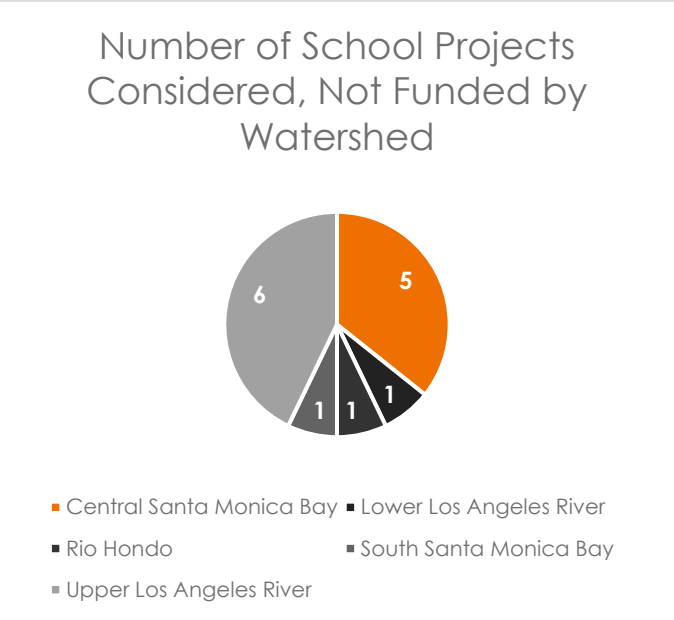


Figure 3.0 - Number of School Projects Considered, Not Funded by Watershed Area.

*The ULAR project total includes Victory ES DROPS, which declined their funding award from the Program after securing

Ultimately, LAUSD has displayed a repeated struggle in applying and successfully obtaining funds from the Program for school greening projects. The number of project submittals that were not funded from LAUSD (nine out of ten) demands some focus on this institution as an applicant, to both support its success and contextualize the broader need to identify schools as part of community.

[12] See these demographic data about PUSD
[13] See these demographic data about LAUSD
[14] See Greening Schoolyards: An Urban Resilience Perspective
[15] See this LAUSD news brief from December 2022

6 Good, Better, and Best Engagement Evaluation

Each project was evaluated for this analysis using Good, Better, or Best strategies for community engagement as per the SCW Program May 2022 Interim Guidance[16]. To clarify, the Program does not have an official metric for rating projects by level of community engagement, but rather, outlines suggestions for each kind of engagement. Evaluating by the Good, Better, or Best framework for community engagement in this analysis can help determine whether or not community engagement practices impacted the funding success of projects located at schools. The best engagement would include outreach and communication with school-age children, ensuring they are considered constituents in the planning and implementation processes[17]. Table 2.1 below displays the funded school projects in the first green rows and the considered but not funded school projects below them.

Project Name	Type (IP, TRP, SS)	Year	Funding Status	Proponent	Distance from disadvantaged community census tract (mi)	Good, Better, or Best
El Monte Norwood Elementary Stormwater Capture Project	IP	FY23-25	Accepted, Funded	Trust for Public Land	N/A	Best
Emerald Necklace John Muir High School Campus Natural Infrastructure Improvement Project	IP	FY23-24	Accepted, Funded	Amigos de los Rios	0.5	Best
Jackson Elementary School Campus Greening and Stormwater Quality Improvement Project	IP	FY22-23	Accepted, Funded	Amigos de los Rios and Pasadena Unified School District	0.18	Best

[16] See Table 1.0 where methods for this evaluation are described with an example of coded clauses for Woodlake Elementary School.
[17] See Reference Manual on Making School Climate Improvements



Project Name	Type (IP, TRP, SS)	Year	Funding Status	Proponent	Distance from disadvantaged community census tract (mi)	Good, Better, or Best
LAUSD Living Schoolyards Program Pilot Study	SS	FY21-22	Accepted, Funded	TreePeople	N/A	Best
East Los Angeles College Northeast Drainage Area and City of Monterey Park Biofiltration Project	IP	FY21-22	Accepted, Funded	Los Angeles Community College District & BuildLACCD	0.05	Good
Los Angeles Pierce College Northeast Stormwater Capture & Use and Biofiltration Project	IP	FY21-22	Accepted, Funded	Los Angeles Community College District & BuildLACCD	N/A	Good
Plymouth School Neighborhood Stormwater Capture Demonstration Project	IP	FY21-22	Accepted, Funded	Amigos de los Rios	0.11	Better
South El Monte High School	TRP	FY21-22	Accepted, Funded	Lena Luna	0	Better
Bassett High School Stormwater Capture Multi-Benefit Project	IP	FY20-21	Accepted, Funded	Los Angeles County	N/A	Better
Pasadena Unified School District Campus Green Infrastructure Development Project	TRP	FY20-21	Accepted, Funded	Amigos de los Rios	N/A	Best

Project Name	Type (IP, TRP, SS)	Year	Funding Status	Proponent	Distance from disadvantaged community census tract (mi)	Good, Better, or Best
Victory ES - DROPS	IP	FY21 -22	Accepted, Funded, and Later Withdrawn	Los Angeles Unified School District (LAUSD/District)	0	Better
Monrovia Unified School District Campus Green Infrastructure Development Project	TRP	FY20 -21	Considered, Not Funded	Amigos de los Rios	0.75	Better
Venice High School	IP	FY20 -21	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	N/A	Good
Normandie Ave ES - DROPS and Paving	IP	FY21 -22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	0	Better
Webster MS - DROPS	IP	FY21 -22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	2	Better
Venice High School Comprehensive Modernization Project	IP	FY21 -22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	1.2	Better
West Los Angeles College Soccer Field Basin Dry Well Project	IP	FY22 -23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	1.25	Good
Huntington Park High School Storm Water Management System	IP	FY21 -22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	0	Better

Project Name	Type (IP, TRP, SS)	Year	Funding Status	Proponent	Distance from disadvantaged community census tract (mi)	Good, Better, or Best
East Los Angeles College East Drainage Area Biofiltration and Stormwater Capture & Use Project	IP	FY22-23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	0.05	Best
Los Angeles Harbor College Central and West Campus Underground Infiltration and Biofiltration Project	IP	FY22-23	Considered, Not Funded	Los Angeles Community College District & BuildLACCD	0.01	Better
Woodlake ES - LID Project	IP	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	2	Good
Northridge Middle School	IP	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	0	Better
Thomas Jefferson High School Comprehensive Modernization Project	IP	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	0	Better
North Hollywood High School	IP	FY21-22	Considered, Not Funded	Los Angeles Unified School District (LAUSD/District)	0	Good

Project Name	Type (IP, TRP, SS)	Year	Funding Status	Proponent	Distance from disadvantaged community census tract (mi)	Good, Better, or Best
LAMC South Arroyo Improvement and Deep Underground Infiltration Project	IP	FY22-23	Considered, Not Funded	Los Angeles Mission College/BuildLACCD	0.9	Best

Table 2.1- Funded school projects and considered but not funded school projects and their Good, Better, or Best Evaluation for Community Engagement

Some projects documented exemplary attainment of engagement with community members. The PUSD and Amigos de los Rios Campus Green Infrastructure Development Project was rated "Best" for their community-based planning efforts. Beyond including neighbors and students in the pre-implementation phases of project development, the project described plans to conduct monthly events where students, school staff and faculty, and neighbors can further engage with the nature-based infrastructure. The proposal from PUSD states that people will be able to "plant native trees and shrubs, collect scientific and ecological data, support green infrastructure element installation, and care for project plantings," during monthly events. By partnering with a local community-based organization (CBO), PUSD gains additional capacity to have environmentally specific educational programming, maintenance, and event-planning, giving them a competitive advantage over school proponents engaging in similar projects without CBO partners.

Another project that was rated as "Best" in this analysis was the East Los Angeles College East Drainage Area Biofiltration and Stormwater Capture and Use Project. Though not funded, the project was rated "Best" in this analysis as it described plans to create signage, engage students, faculty, staff, and community members in multiple meetings throughout project planning and implementation, and sought to engage college-level students with the project through relevant coursework.

The successful SS Living Schoolyards Pilot Study application by TreePeople on 10 LAUSD campuses exemplified clear community engagement strategies and catered to the District's need to manage flood and stormwater by studying potential stormwater management practices for Southern California's largest landowner[18]. This project envisions schools as participants in attaining Los Angeles County's water quality and supply goals, and imagines school (and neighborhood) communities as recipients of the multi-benefits that school greening provides.

[18] See TreePeople's Living Schoolyards SCWP application

Additional projects that were considered but not funded that we assessed as having "Better/Best" community engagement were the Thomas Jefferson High School Comprehensive Modernization Project by LAUSD and the Los Angeles Mission College (LAMC) South Arroyo Improvement and Deep Underground Infiltration Project. The Thomas Jefferson High School project planned to conduct several community meetings and leveraged the LAUSD Outreach and Engagement Plan, and the LAMC project included detailed outreach plans with explicit engagement with college students.

Further, the Los Angeles Harbor College (LAHC) application outlined plans to solicit feedback from diverse constituents including water providers, other municipal entities, campus constituents, and people who recreate on LAHC owned fields. The outreach plan strived to engage students and community members to help develop signage ("Good"), provide community members with the capacity and connection and to coordinate with LADWP and the City of Los Angeles ("Better"), and continuously engage students and community members in the project along with future projects aimed at stormwater capture and benefits ("Best"). The application also noted LAHC's plans to use the stormwater infrastructure as an outdoor classroom for "students and stormwater trade professionals."

7 LAUSD project applicants

Within the SCWP funding application, language related to school benefits was most frequently included in answers to the following question:

> "Does this project enhance green spaces at schools?"

According to the SCWP Reporting Dashboard, 34 funded projects use the words "enhance green spaces at schools," which consists of 28 Infrastructure Projects, 7 Technical Resources Projects, and 0 Scientific Studies[19]. Despite the larger number of projects that claim to "enhance green space at schools," this analysis reveals that there are only 8 funded projects providing this benefit directly on a school campus. This disparity means that more projects explicitly plan or propose creating school greening benefits (e.g. proximate school to a project site[20]) regardless of being located on a school campus.

When examining this question in applications by school proponents, those that received funding often shared explicit outdoor education goals from enhancing green spaces at school sites, while LAUSD applications did not always express this as an element in their project plans. Unfunded LAUSD project applications often cited that the primary needs for funding were for school enhancements like removing asphalt and updating old buildings. These campus enhancement projects mentioned stormwater in construction management of other enhancements rather than integrating stormwater management into the project focus. While many LAUSD feasibility studies described educational opportunities generated by the project, many of the educational benefits were driven by signage. Implementing signage alone falls under the "Good" category of community engagement, rather than more sophisticated ways to engage students in campus greening. Applications rarely discussed the potential for environmental or watershed-specific lessons and programming at schools and did not include many specific details or provide curriculum plans as attachments to the application. Curriculum development was often expressed through creating an outdoor classroom or learning garden within the proposed nature-based stormwater solutions.

LAUSD applicants referenced the LAUSD Outreach Plan and included the Plan as an application attachment. The Plan includes strategies for educating faculty, staff, parents and guardians, and neighbors to provide feedback to schools and campus stakeholders on projects that would take place on or nearby a campus in their neighborhood, but, does not mention student involvement throughout the planning process. It does, however, imagine students to be beneficiaries of the results[21].

A LAUSD school greening project at Castellanos Elementary School[22], though not an SCWP-funded project, is another exemplary case of engaging students in the planning process. Throughout the planning process, students were asked for their opinions on what to include in

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[19] Navigate the SCW Program Reporting Dashboard and click the filter "enhances green spaces at schools."
[20] There should also be a metric developed (e.g. kids/greenspace/day) to characterize school greening benefits
[21] This Outreach Plan can be found as an attachment in any of the LAUSD considered but not funded applications. This resource is not available publicly online
[22] This Los Angeles Times article describes the need for school greening and the Castellanos Elementary project



the new green design with one student asking for, "a rainbow-colored running track, a shade gazebo, a garden, a nature play area, […] and a 'playground for big kids[23].'" This year, construction will begin on the Castellanos Elementary School Project[24] to include pavement removal, multi-use turf fields, 23 new trees, shaded areas, playgrounds with biophilic design, and a stormwater infiltration BMP [25][26]. The greening project at Castellanos Elementary is being funded by California state climate funds and co-led by the Trust for Public Land.

Partnering with nonprofit organizations, exemplified by the Living Schoolyards Scientific Study led by TreePeople, can further provide LAUSD projects with the capacity to conduct meaningful engagement with school communities. Similarly, a collaboration between LAUSD and CBOs could synergize solutions that address administrative burdens[27]. Recently, a CSMB Watershed Coordinator was provided a seat on LAUSD's Greening Schools and Climate Resilience Committee, and will continue to act as a liaison between SCWP outreach and school greening efforts. Los Angeles County Community College District incorporates similar outreach plans as well and has included explicit intentions to incorporate the stormwater-related engineering degree, technical degrees, and facilities management tracts that are available for students on some campuses into their SCWP projects. According to their applications, this would allow students to learn and explore stormwater Best Management Practices (BMPs) alongside their degree.

[23] Ibid
[24] See LAUSD Office of Environmental Health and Safety Notice of Exemption for the Castellanos Elementary School Urban Greening Project
[25] Ibid
[26] California Code of Regulations Title 14, Chapter 3, Section 15000-15387. See also footnote 21, where this information came from
[27] The issue that caused Victory ES Drops to rescind their funding opportunity



8 Watershed Area Steering Committee (WASC) evaluation of school projects

WASC members' commentary in meetings about whether to include school projects in Stormwater Investment Plans sheds light on some of the reasons why many school greening projects have not moved forward.

In the **CSMB WASC,** committee members weighed the need to fund projects located at schools with concerns that these projects may not be "green" enough or produce enough regional benefits. One WASC member inquired whether the Normandie Avenue Elementary School – DROPS project incorporated plans for joint use by the school and community during non-school hours[28]. While the proponent indicated an ability for the community to work with LAUSD and enter into an agreement for access, the project was ultimately not funded.

Similarly, **ULAR WASC** members encouraged the North Hollywood High School Comprehensive Modernization Project to consider a joint use agreement for the school's open space[29]. Of the six submitted school-led Infrastructure Program (IP) projects and one school-led Scientific Study (SS) submitted for FY21-22 in the ULAR watershed area, only the SS and two of the IP projects were approved for funding. Victory Elementary School – DROPS, one of the approved IPs, later withdrew its application.

Concerns over whether school projects generate regional benefits were also heard in **LLAR WASC** meetings. When explaining why the Huntington Park High School Storm Water Management System project was not ranked highly, one WASC member responded that projects with drainage areas in the range of five-to-six acres should not be considered regional and do not warrant further discussion[30].

Questions to school project applicants also centered on prior and planned community engagement. During discussion over the Los Angeles Pierce College Northeast Campus Stormwater Capture & Use and Biofiltration Project, **ULAR WASC** members inquired about transit accessibility to the project, as well as the type of signage used on campus. The project applicant commented that they would be including student input for the signage process and find ways to create outside classrooms for integrating stormwater and water supply education[31], a practice that would fit under the "Best" category of community engagement. The proponent, LACCD, was successful in garnering SCWP funds.

WASC members also considered school projects that requested funds for reimbursement of completed work. For example, when asked how LAUSD Projects submitted to ULAR in in FY21-22 would be paid for if funds were not to be provided by the SCW Program, LAUSD responded that the projects have already been completed and funded by the DROPS program and Critical Repair Bond funding. Funds from SCWP would be used to reimburse some of the construction

[28] See CSMB Meeting Minutes from February 18, 2021
[29] See ULAR Meeting Minutes from March 18, 2021
[30] See LLAR Meeting Minutes from May 25, 2021
[31] See ULAR Meeting Minutes from February 2, 2021

costs provided, fund Operations and Maintenance costs, and allow funding for additional projects[32]. This project was not included in a Stormwater Investment Plan.

These decisions indicate that WASC members review multiple criteria while considering school greening projects, including the project's ability to provide regional water quality and water supply benefits, whether the project generates benefits to community members (often omitting students and school faculty from the list of beneficiaries), the practices used for community engagement, and cost share/ reimbursement opportunities.

This focus beyond the campus and the role for school projects to contribute to broader SCWP goals reveals that the goal of school greening projects within the SCWP is being seen as secondary to the regional water quality benefits and water supply benefits, which may be the most fundamental barrier to increased achievement of the school greening goal.

[32] See ULAR Meeting Minutes from April 7, 2021

9 Findings

From this analysis of school projects that have been submitted to-date to the SCWP, the following general observations were made:

1 – Most projects on school campuses have not been included in Stormwater Investment Plans (SIPs).

2 –WASC members do not always perceive school projects to deliver regional or widespread water quality, supply, and community benefits, and thus do not prioritize school projects for program funding. This is an opportunity to highlight how past projects have benefitted proximate communities.

3 – LAUSD applications would likely benefit from more prominent reference to existing LAUSD engagement policies and educational linkages for projects. LAUSD engagement strategies were generally evaluated as having Good and Better engagement with community members, with the exception of one plan being rated as "Best" (not included in an SIP). This method of evaluating engagement should continue to be used by the Program.

4 – Students, who are themselves community members, are not universally described by school project proponents as beneficiaries of projects and/or constituents of project plans, limiting how school projects are seen to benefit the surrounding community.

10 Next steps

Guidance may be appropriate for school district facilities staff and SCWP decision-makers alike to better consider and understand students, faculty, and staff as constituents of community-based planning efforts, and therefore implementation partners and beneficiaries of the project outcomes.

There are existing programs that may support engaging school communities with SCWP projects, like TreePeople's Youth and School programs[33]. Much like how the SCWP Public Education Program uses Water for LA initiatives as a resource for adults in the County, TreePeople and Los Angeles County Public Works' existing efforts[34] could be leveraged for student engagement. Connecting with organizations like Friends of the Los Angeles River (FoLAR)[35], who have extensive school education programs, could fill in the educational gaps of project applications. Schools that may lack resources to create entirely new programming could collaborate with organizations that are experts in environmental and watershed-based curriculum-building, which can strengthen their SCWP project applications.

The Schools Education Program under development may also offer additional opportunities to further school engagement within the SCWP. The Schools Education Program may be used to develop curriculum and programming for schools across Los Angeles County, educating students about stormwater and their local environment.

Some schools are exploring the possibility of making green space available to community members after school hours as a new, local recreation opportunity, often called a Community School Park (CSP)[36]. School project proponents can look to examples like Trinity Elementary School[37], to build a framework for project planning. For CSP plans, outreach includes not only campus community members (including students) and neighbors, but also CBOs that have the expertise to connect new green space to community members. CBOs that have a history of providing technical resources for schools and lead school greening could be helpful for schools interested in creating CSPs. Beyond CBOs, local parks and other organizations familiar with navigating park insurance and safety could be beneficial partners, like the community land trust People for Parks, who partnered with Trinity Elementary School to create their CSP. By building partnerships for a shared goal, school greening advocates can plan for themselves, their students, and their extended communities.

Lastly, analysis on SCWP school greening projects could be expanded. First, delving deeper into the LAUSD and LACCD Community Outreach Plans could provide further insight into how their policies and strategies can be incorporated into the SCWP applications themselves. Similarly, an analysis could be done on any outreach plans from DROPS projects which greened schools but did not seek SCWP funding. Developers of school greening projects that did not seek SCWP

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[33] Explore TreePeople's Youth and School programs on their web page
[34] See this effort, Generation Earth, on middle and high school level environmental education led by a team from TreePeople and Los Angeles County Public Works
[35] See FoLAR's Los Angeles River Curriculum
[36] See the LAUSD Facilities Services Division's definitions of the types of school Green Projects and some case studies
[37] See the CSP project at Trinity Elementary School, which partnered with the organization People for Parks



funds may also have valuable insight about their choice *not* to apply. For example, there may be other funding opportunities such as CAL FIRE Urban and Community Forestry Grants[38] that are better suited to school proponents who would otherwise struggle to meet SCWP application and administration requirements. In addition, school proponents may find it challenging to engage in larger projects due to constrained timeline requirements for construction during periods of time where school is not in session. These proponents may find it easiest to apply for funding to reimburse already completed projects, an avenue not frequently awarded in the Program.

Previous SIP deliberations reveal that WASC members review multiple criteria while considering school greening projects, including the project's ability to provide regional water quality and water supply benefits. Expected changes to stormwater permitting on school property may impact the WASC's appetite to fund school projects as the responsibilities for compliance increase for schools in the region[39], and the relationship between the schools' regulatory responsibility and that of the municipality that surrounds the campus become better aligned.

Finally, guidance tools can help prospective Program applicants to create successful school project applications. For example, the Schoolyard Greening Outreach questionnaire[40] developed by the CSMB Watershed Coordinator, could be expanded on and shared with school proponents to promote school greening projects within the SCWP. Currently, the questionnaire is used by Watershed Coordinators during initial outreach to school districts to gather information about general community needs within the school district, inquire whether the district is addressing MS4 compliance, and identify potential opportunities for stormwater projects and linked educational opportunities on school campuses. Tracking of students benefitting from existing school greening projects is also needed to understand their role as constituents in campus greening efforts across the County. It is a long-term goal of many Watershed Coordinators to build relationships with school districts and facility managers to develop project concepts for the SCWP. The Watershed Coordinators' Schools and Stormwater Working Group has recently collaborated on a three-part tour of Drought Response Outreach Program (DROPs) funded schools in LA County that have implemented low-impact greening and stormwater capture on their campus. The school tours are targeted to an audience that would benefit most from hearing lessons learned, including school district contacts.

[38] https://www.fire.ca.gov/what-we-do/grants/urban-and-community-forestry-grants
[39] See Phase II Stormwater Small MS4 Guidance document by the EPA
[40] See Attachment A below



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Attachment A

Central Santa Monica Bay Schoolyard Greening Outreach Interview

Introductions:
Context- we have a few broad questions, a presentation we can share for more detailed information about the Safe, Clean Water program, and then a guided discussion following- does that sound good to you?

- How large is your district?
- Do you have a point person that works on stormwater for the district?
- What are some current goals and priorities for your team?
- How familiar are you with the Safe Clean Water Program? (Give context for SCWP and/or WC role)
    - If familiar: how did you learn about the program?

MS4 stormwater scope and scale:

- Has your school district begun to address stormwater and MS4 compliance?
    - Are you aware that the Regional Board will begin to include schools in the MS4 permits?
    - Have you started a Stormwater Management Plan (SWMP)?
- What is your relationship with the City?
- Are you open to taking off-site water on your campus for a more regional collaboration?

Challenges/barrier identification:

- What are some current issues facing your schools re: lack of access to green space on campus, hot blacktop areas, etc.?

School Needs:

- Are there any potential sites where a stormwater capture project can be implemented?
- Are there upcoming opportunities where the timing is right (i.e.already scheduled asphalt replacement or playground upgrade, other construction)
    - Is there a way I can help?
    - Funding opportunities- Cal Fire new school greening grant initiative

Community Needs:

- When you hear from community members, what are their top concerns and priorities?
    - Do concerns around water relate to: *drought, reliance on imported water, flooding, trash/industrial contamination/other pollution in streets and waterways, ocean pollution, othe*r?
    - Community desires- what does the community advocate for? *Drought resilience, flood protection, cleaner beaches and rivers, LA river rec opps, trees, community gardens, green schoolyards, wildlife habitat, bike paths, public rec facilities, walking paths, park maintenance, other*
    - Opportunity: are there adjacent community needs to stormwater capture that could be addressed in the program through multi-benefit projects?
- Are there any annual popular school/community gatherings that we should put on our radar for outreach opportunities?
- Is there a particular group within your district that you think might be particularly interested in stormwater capture and school greening (ex. Green Ambassador/Eco club, active PTA group)?