



**Civil Engineering
College of Engineering**

Date: April 16th, 2024

To: South Santa Monica Bay (SSMB) Watershed Area Steering Committee

Dear Members of the SSMB Watershed Area Steering Committee,

This intent of this letter to provide insights regarding the community investment benefits and broader impacts of the proposed Scientific Study entitled "Identifying Best Practices for Maintaining Stormwater Drywells," led by Cal Poly Pomona.

In essence, the proposed scientific study seeks to undertake scholarly efforts aimed at identifying best practices in deep infiltration infrastructure design, pre-treatment methods, and maintenance procedures to maximize the capacity of drywell infrastructure over time. Notably, in recent years, numerous municipalities and stakeholders in Los Angeles County have installed thousands of drywells, with plans to install many more in the near future. However, a substantial knowledge gap persists, particularly about best practices for operating and maintaining drywell systems. While anecdotal reports of drywell clogging and reduced infiltration capacity are available, rigorous studies examining drywell capacity over time are scarce. Consequently, there is limited information regarding best drywell design, pre-treatment systems, and maintenance practices to optimize infiltration capacity. Data science and machine learning approaches will aid in carefully finalizing study sites. Infiltration testing will be conducted periodically to document the effects of runoff volume and maintenance practices. Technical reports will be prepared and disseminated to inquire technical feedback from project owners and stakeholders. Interim findings may prompt recommendations for modifying maintenance practices. Quantitative data on factors affecting drywell capacity and performance over time have the potential to significantly enhance the return on investment in stormwater infrastructure. The benefits of this study include:

- Recommendations for deep infiltration infrastructure designs and pre-treatment practices that balance cost and long-term performance;
- Identifying the appropriate maintenance frequency and practices for different runoff volumes and levels of land-use and traffic loading within the catchment basin; and
- Determining how soil characteristics can impact long-term performance and potential changes in design and maintenance to address fine-grained soils.

This **multi-institutional research** effort, led by **Cal Poly Pomona** in collaboration with **UC Santa Barbara**, involves students, primarily from underrepresented minority groups. The project encompasses significant community investment components, particularly in workforce development and education. Cal Poly Pomona, as a Hispanic Serving Institution, serves a diverse student body, with a significant proportion being first-generation and ethnic minorities. Figure 1 is an infographic that illustrates Cal Poly Pomona's student population demographics.

With serving more than 26,000 students, our **first-generation student population stands at 55%**, and **ethnic minorities make up 56%** of the total student body. Overall, the proposed scientific study presents direct



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opportunities for educational growth and development for a significant population of young adults, primarily from underserved minority backgrounds.

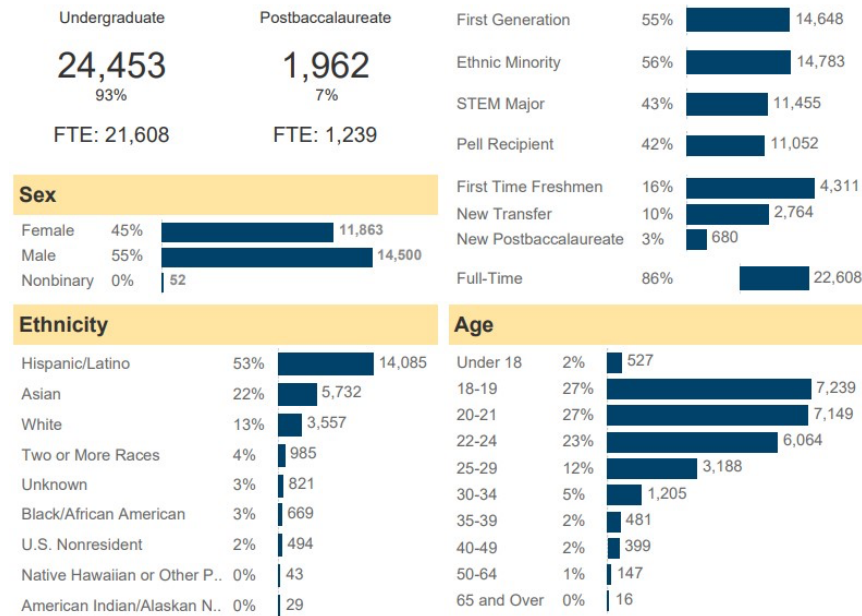


Figure 1. Cal Poly Pomona's student population demographics

Leveraging funds within the university can be utilized to support the objectives of this scientific study. Specifically, there are student research programs funded by the Department of Education that can serve as sources of support for students engaged in scholarly work on STEM projects. Guidance will be provided to students to help them access these leveraging funds. Additionally, similar opportunities for funding exist within the university for travel purposes. Our project students can apply for support from various programs within the university and the CSU system to attend technical events and conferences, facilitating the dissemination of the study's outcomes.

There are other broader impacts of the scientific study for **regional workforce development** including: **offering Senior Project (EGR 4810/4820/4830)** course series focused on stormwater engineering; developing **innovative technical courses** focused on Low Impact Development and Green Infrastructure; developing a **certificate program** focused on stormwater engineering through Cal Poly Pomona College of Professional and Global Education; **hosting minority students** sponsored by NSF and other sponsored programs in our scientific study project; and **directly impacting social mobility of students** from underrepresented groups while they are student.

We are grateful for the committee's attention and support for this scientific study, which seeks an annual budget of approximately \$80K from the SSMB WASC throughout its duration. This amount represents less than half a percent (< 0.5%) of the watershed's annual budget, highlighting the **substantial return on investment** of this particular project.



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Thank you for considering the community benefits and broader impacts of this scientific study project.

Best regards,

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David Wahba comment card (attachment)

These scenarios both assume the Gardena Willows TRP and the three scientific studies would be included in the SIP. The “SIP Remaining Balance/Rollover” line includes them along with the previously funded projects, showing the amount remaining under the proposed scenario for infrastructure project funding.

Scenario A (Preserves Leverage Funding) is the Peninsula group’s preferred approach since it ensures that the project can utilize the Caltrans \$2M in leveraged funding along with the \$938K in Federal funds that have been secured.

- DC Parkway BMPs Project would receive design funds over first two years (FY24/25 and FY25/26) allowing it to move forward with design, skip a year of funding, then receive construction funding across two years FY27/28 & FY28/29.
- Torrance Airport Project would extend the construction funding schedule to 3 years, still preserving Caltrans funding which must be used by FY26-27.
- Wilmington Neighborhood Greening PMR request would be spread across 4 years with the bulk allocated in FY28/29 to allow them to finish construction that year—this is the PMR project that is farther along and has completed pre-design.
- Wilmington Q Street project would wait to request PMR funding until after their preliminary design is complete with engineer’s estimate. They could come back next year since we understand that PMRs will be accepted for FY2025-26 even though Calls for Projects are being suspended.

| SCENARIO A | | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|---------------|
| Project Name | FY2425 | FY2526 | FY2627 | FY2728 | FY2829 | 5-YEAR TOTAL |
| <i>Infrastructure Projects</i> | | | | | | |
| Torrance Airport Stormwater Basin Project | \$ 2,200,000 | \$ 6,000,000 | \$ 9,700,000 | \$ 778,402 | \$ 512,000 | \$ 19,190,402 |
| DC Parkway BMPs | \$ 269,628 | \$ 308,372 | \$ - | \$ 2,214,687 | \$ 2,214,687 | \$ 5,007,374 |
| Wilmington Neighborhood Greening | \$ 500,000 | \$ 500,000 | \$ 500,000 | \$ 3,000,000 | | \$ 4,500,000 |
| SIP REMAINING BALANCE/ROLLOVER | \$ 9,285 | \$ 19,501 | \$ 25,125 | \$ 9,276,236 | \$23,404,061 | |

Scenario B (All PMRs included, Torrance Airport loses leverage funding)

- DC Parkway BMPs Project would receive design funds over FY24/25 and FY25/26, skip a year of funding, then receive all construction funds in FY27/28.
- Torrance Airport Project would extend the construction funding schedule to 4 years, requiring the Peninsula group partners to forfeit \$2M in Caltrans funding and pursue new leveraged funding to address inflationary impact on cost.
- Wilmington Neighborhood Greening PMR request would be divided between FY24/25 and FY26/27, allowing project completion on schedule.
- Wilmington Q Street PMR would be split across FY24/25 and FY28/29, with majority in FY28/29, closer to construction timing.

| SCENARIO B | | | | | | |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------------|
| Project Name | FY2425 | FY2526 | FY2627 | FY2728 | FY2829 | 5-YEAR TOTAL |
| <i>Infrastructure Projects</i> | | | | | | |
| Torrance Airport Stormwater Basin | \$ 550,000 | \$ 6,500,000 | \$ 7,100,000 | \$ 4,784,402 | \$ 256,000 | \$ 19,190,402 |
| DC Parkway BMPs | \$ 269,628 | \$ 308,372 | \$ - | \$ 4,429,374 | | \$ 5,007,374 |
| Wilmington Neighborhood Greening PMR | \$ 1,400,000 | - | \$ 3,100,000 | - | - | \$ 4,500,000 |
| Wilmington Q Street PMR | \$ 750,000 | - | - | | \$ 6,826,300 | \$ 7,576,300 |
| REMAINING BALANCE/ROLLOVER | \$ 9,285 | \$ 19,501 | \$ 25,125 | \$ 6,055,549 | \$ 15,827,761 | |



Public Comment Form

Name*: Anastasia Seims, Public Works Director Organization*: City of Palos Verdes Estates
Email*: aseims@pvestates.org Phone*: (310) 750-9819
Meeting: SSMB Date: 4/17/2024

LA County Public Works may contact me for clarification about my comments

*Per Brown Act, completing this information is optional. At a minimum, please include an identifier so that you may be called upon to speak.

Phone participants and the public are encouraged to submit public comments (or a request to make a public comment) to SafeCleanWaterLA@dpw.lacounty.gov. All public comments will become part of the official record.

Please complete this form and email to SafeCleanWaterLA@dpw.lacounty.gov by at least 5:00pm the day prior to the meeting with the following subject line: "Public Comment: [Watershed Area] [Meeting Date]" (ex. "Public Comment: USGR 4/8/20").

Comments

The Torrance Airport Stormwater Basin Project is the most important infrastructure project for the Palos Verdes Peninsula Watershed Group and will provide water quality compliance benefits for the cities of Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates, along with LA County Unincorporated. The project is located in Torrance because of geologic challenges with siting projects on the Palos Verdes Peninsula. Other options have been explored but could not be pursued due to technical infeasibility.

The project will address past due TMDLs for Machado Lake that recently resulted in enforcement actions against the group and is critical for the group to comply with the TMDL provisions of the MS4 Permit. This WASC funded the project for design (in FY21-22) and we are coming back to you with a well fleshed out project that has completed preliminary design, is well underway with design. Given the importance of this project, we have come up with some funding scheduling scenarios for your consideration that could allow each of the infrastructure projects to get what they need, with some compromise. Under these scenarios all the infrastructure projects could move forward, but construction schedules would be extended. Scenario A is the group's preferred approach as it would allow for funding of the Torrance Airport Stormwater Basin Project over three years, ensuring that we can tap the almost \$3M in leveraged funding that we have secured, most of which must be spent by July 2027. At least one of the project modification requests is being submitted before preliminary design is complete at a point when construction costs cannot be estimated with confidence.

Please support the Torrance Airport Stormwater Basin Project. Thank you for your consideration.