

City of Signal Hill

Reservoir Park Stormwater Capture Project

Scope of Work



Prepared for the Safe Clean Water Program
Los Angeles County Flood Control District

Thomas Bekele
Director of Public Works

2175 Cherry Ave.
Signal Hill, CA 90755

February 1, 2025

EXHIBIT B

Project Information

Project Name: Reservoir Park Stormwater Capture Project
 SCW Watershed Area: Lower San Gabriel River
 SIP Funding Program: Infrastructure Program
 Call for Projects Cycle: Round 5, FY 2024-2025
 Funding Requested: \$6,676,878

A-1 Budget Plan

Summary of leveraged funds: The Los Cerritos Channel (LCC) Watershed Management Group contributed \$92,244 for the initial feasibility study for the project and is not reflected in the total Safe, Clean Water funded amount of \$6,676,878.

Table 1: Budget Plan

Fiscal Year	SCW Program Contribution	Funded Activity
FY 24-25	\$951,843	<ul style="list-style-type: none"> • Final Design (30/60/90/100) (\$768,823), including the following: <ul style="list-style-type: none"> • Project Management (\$56,137) • Preparation and processing of applicable environmental documentation and permits (\$76,882) • Stakeholder and community outreach/engagement (\$50,000) • Design of the subsurface infiltration gallery and dry well • Development of the O&M Plan • Development of the Post-Construction Monitoring Plan • Development of the Vector Minimization Plan
FY 25-26	\$1,918,345	<ul style="list-style-type: none"> • Receive construction disbursement #1 (\$1,918,345) • Completion of any remaining items from above.
FY 26-27	\$1,903,345	<ul style="list-style-type: none"> • Receive construction disbursement #2 (\$1,903,345) • Completion of any remaining items from above.
FY 27-28	\$1,903,345	<ul style="list-style-type: none"> • Receive construction disbursement #3 (\$1,903,345) • Construction of the subsurface infiltration gallery and dry well, including the following: <ul style="list-style-type: none"> • Construction capital costs (\$5,125,487) • Construction administration and design support (\$512,549) • Construction survey (\$15,000) • Agency management construction (\$72,000) • Completion of any remaining items from above.
Total	\$6,676,878	\$6,676,878

A-2 SCW Program Goals

The project and Budget Plan are consistent with the SCW Program Goals per Chapter 18, Section 4 of the LACFCD Code. See the table below for further information.

Table 2: SCW Program Goals

Goal	Method of Achievement
A. Improve water quality and contribute to attainment of water-quality requirements.	The project will entail the construction of a 0.5 acre-foot capacity storage/infiltration facility under the existing park. It will manage runoff from a drainage area of 184 acres within the Cities of Signal Hill and Long Beach, and will capture and mitigate 100% of the 85 th percentile storm (5.58 ac-ft). Infiltration of water into the subsurface gallery and eventually the water table will facilitate pollutant removal. A supplementary filter system will provide pollutant removal prior to infiltration.
B. Increase drought preparedness by capturing more Stormwater and/or Urban Runoff to store, clean, reuse, and/or recharge groundwater basins.	Infiltration rates (0.3 in/hr) are adequate and will augment water supply by approximately 5.58 acre-feet on an average daily basis (i.e. estimated 24-hour Storm Capacity).
C. 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.	See response above. Additionally, the project will enhance recreational activities at the park through installing new permeable walkways, a community garden, and native vegetation/habitat for birds and butterflies. The project will also help communities mitigate and adapt to the effects of climate change through the planting of native trees and select vegetation.
D. Leverage other funding sources to maximize SCW Program Goals.	The Los Cerritos Channel (LCC) Watershed Management Group provided funding for the Feasibility Study and the preliminary geotechnical testing for this project (\$92,244).
E. Invest in infrastructure that provides multiple benefits.	See responses above.
F. Prioritize Nature-Based Solutions.	The project will include the installation of permeable walkways throughout the park, in addition to installing a dry well, native vegetation, and a community garden.
G. Provide a spectrum of project sizes from neighborhood to regional scales.	The project will be neighborhood scale.
H. Encourage innovation and adoption of new technologies and practices.	The project proposes to implement diversion, pre-treatment, and infiltration.
I. Invest in independent scientific research.	Not applicable.
J. Provide DAC Benefits, including Regional Program infrastructure investments, that are not less than one hundred and ten percent (110%) of the ratio of the DAC population to the total population in each Watershed Area.	Not applicable, the project site is not located within a DAC.

<p>K. Provide Regional Program infrastructure funds benefitting each Municipality in proportion to the funds generated within their jurisdiction, after accounting for allocation of the one hundred and ten percent (110%) return to DACs, to the extent feasible.</p>	<p>This is achieved through Regional Program funding.</p>
<p>L. Implement an iterative planning and evaluation process to ensure adaptive management.</p>	<p>Upon completion of construction, the project will be monitored on a regular basis to evaluate its pollutant reduction benefits. Modifications will be made iteratively as appropriate.</p>
<p>M. Promote green jobs and career pathways.</p>	<p>The project requires a skilled workforce to ensure proper design of all project components.</p>
<p>N. Ensure ongoing operations and maintenance for projects</p>	<p>Upon completion of construction, the project will require ongoing operations and maintenance. Refer to Section A-5.</p>

Quantitative targets and corresponding metrics¹ will be provided upon request during subsequent reporting; however, achievement of these metrics may not be fully realized until the project has been constructed.

¹ The metric may include annual volume of stormwater captured and 1) infiltrated, 2) reused, or 3) treated and released; Creation, enhancement, or restoration of Community Investment Benefits; Acreage increases in Nature-Based Solutions and claimed level of NBS (with matrix demonstrating determination of good, better, best).

A-3 Estimated Reasonable Total Activity Cost

See the table below for the estimated total activity cost for all phases and tasks included in the work schedule for the Funded Activity.

Table 3: Estimated Activity Cost

Phase	Activity	Cost
Design	Task 1: Final Design (30/60/90/100)	\$768,823
Design	Task 2: Public Outreach During Design	\$50,000
Design	Task 3: Environmental Planning (CEQA) and Permitting	\$76,882
Design	Task 4: Agency Management (Design)	\$56,137
Construction	Task 5: Construction Capital Costs	\$5,125,487
Construction	Task 6: Construction Administration and Design Support	\$512,549
Construction	Task 7: Construction Survey	\$15,000
Construction	Task 8: Agency Management (Construction)	\$72,000
Total		\$6,676,878

A-4 Funded Activity Description and Scope of Work

The scope of work will primarily entail the following activities:

TASK 1: DESIGN

Project Management

- Technical and administrative services as needed for project completion, including review of all work performed, coordination with budgeting and scheduling, and completion of reporting requirements

Design and Engineering

- Development of 30%/60%/90%/100% Plans
- Design of the diversion, pre-treatment, and infiltration gallery and dry well system.

Environmental Planning and Permitting

- Preparation and processing of applicable environmental documentation and permits (see Table 4 below for the permits expected for this project)

Stakeholder and Community Outreach/Engagement

- Conduct at least one Outreach Activity and one Engagement Activity per the requirements of the Safe Clean Water Program (see Section A-8 for additional details)

Development of the O&M Plan

- An O&M Plan will be developed as part of the 100% final design and will detail the maintenance requirements for project components (see Section A-5 for additional information)

Development of the Post-Construction Monitoring Plan

- A Post-Construction Monitoring Plan will be developed as part of the 100% final design and will identify monitoring procedures to evaluate the effectiveness of the project in treating stormwater (see Section A-6 for additional information)

Development of the Vector Minimization Plan

- A Vector Minimization Plan will be developed as part of the 100% final design and will ensure that the system meets all requirements and minimizes the potential for vector increases

TASK 2: CONSTRUCTION

Project Management

- Technical and administrative services as needed for project completion, including review of all work performed, coordination with budgeting and scheduling, and completion of reporting requirements

Construction Activities

- Construction of the Reservoir Park Stormwater Capture Project

Park Improvements

- Park improvements at Reservoir Park, including pervious walkways, a community garden, native vegetation, educational signage, etc.

TASK 3: O&M

Operation and Maintenance

- O&M activities, including monitoring at the diversion point and inflows and outflows of the storage unit.

Table 4: Anticipated Permitting

Agency	Permit
City of Signal Hill Department of Public Works	Encroachment Permit
City of Long Beach Department of Public Works	Encroachment Permit
LA County Flood Control District	Major Modification Permits
LA County Flood Control District	Discharge Permit for Non-Stormwater (treated) Overflow Discharged Back into the Storm Drain (BI 0633 – Line B)
State Water Resources Control Board	Construction General Permit
South Coast Air Quality Management District	Rule 403
CA Natural Resources Agency	CEQA

A-5 Operations and Maintenance (O&M) Plan

A final Operations and Maintenance (O&M) Plan has been prepared as part of the 100% design. At this time, the expected O&M elements are shown below in Table 5. The final O&M Plan will be completed at the end of construction when actual brands and part information is made available. The responsible party for the O&M of the completed project will be the City of Signal Hill.

Table 5: Anticipated O&M

Description	O&M Description	Frequency	No. of Times per Year
Permeable Pavement	Vacuum	As Needed	As Needed
Diversion Structure	Inspection and Cleaning	Quarterly	4
Pretreatment Device	Vacuum	Every 6 months	2
Wet Well	Dry Season Inspection and Cleaning	Twice in 6-month period	2
Wet Well	Wet Season Inspection and Cleaning	Thrice in 6-month period	3
Dry Well	Inspection and Cleaning	Quarterly	4
Valve Maintenance	Inspection and Maintenance	Annually	1
Control Panel Maintenance	Inspection and Maintenance	Annually	1
Storage	Dry Season Inspection and Cleaning	Every 6 months	1
Storage	Wet Season Inspection and Cleaning	Every 6 months	1

A-6 Post-Construction Monitoring

It is understood that stormwater quality monitoring data shall be collected and reported in a manner consistent with the SWRCB database (CEDEN) for a period of three years. The Post-Construction Monitoring Plan evaluates the effectiveness of stormwater treatment facilities; quality objectives; sampling design; sampling procedures; quality control; data management verification, and reporting; data quality assessment; and data analysis procedures.

A-7 Sustainability Rating

Not applicable. This project has not applied for Institute for Sustainable Infrastructure (ISI) verification.

A-8 Stakeholder and Community Outreach/Engagement Plan

Since the funding requested is under \$10 million, the project is required to conduct one Outreach Activity and one Engagement Activity. See Table 6 below for the Stakeholder and Community Outreach Plan. Additionally, the project is proposed at an existing parking facility; therefore, no displacement or gentrification is anticipated as a result. The City acknowledges that the project will be fully subject to and comply with any County-wide displacement policies and anti-displacement requirements.

Table 6: Stakeholder and Community Outreach Plan

Required Activity	Required Frequency	Plan
Outreach	1	The City will implement at least one Outreach Activity, and will utilize existing public meetings such as city council meetings and/or other Online Media Outreach (email blasts, social media, publication on a website), Local Media Outreach (newsletters), and Grassroots Outreach (distribution of flyers or other printed materials) to provide information to residents and information about upcoming construction activities. As required, the District will be included in all social media outreach and notified of all meetings and other engagement events. Additionally, outreach efforts through web-based platforms will first be requested to the District at least four weeks before the requested publish date.
Engagement	≥1	The City will conduct at least one engagement activities to solicit, address, and seek input from community members. This may be in the form of a workshop or coordinated with council, commission, or committee meetings where public input is invited. Meetings and workshops may be held virtually if necessary.

A-9 Tracking Infrastructure Program Project Benefits

Upon Activity Completion, the expected benefits include:

- Construction of the Reservoir Park Stormwater Capture Project (Funded Activity)
- Implementation of the O&M Plan
- Implementation of the Post-Construction Monitoring Plan
- Implementation of the Vector Minimization Plan

Aside from the Funded Activity, the future implementation of the project will include O&M, Post-Construction Monitoring, and Vector Minimization. Anticipated benefits of the fully implemented project also include improved park facilities, improved water quality, heat island effect reduction, additional shading, improved open space, and enhanced experience to visitors of Reservoir Park. The park will provide improved park facilities through the implementation of permeable walkways, a community garden, educational signage, and native vegetation. Diversion systems, pre-treatment facilities, and a subsurface infiltration gallery and dry well installed at the park will provide increased water supply and improved water quality. The City will submit an overview of the benefits achieved upon the Activity Completion. Quantitative targets and corresponding metrics will be provided upon request during subsequent reporting; however, achievement of these metrics may not be fully realized until the project has been constructed (i.e., Funded Activity).

A-10 Work Schedule and Completion Date

The table below lists the expected schedule for the Funded Activity. The expected completion date of the Funded Activity is June 30, 2028.

Table 7: Anticipated Work Schedule

Fiscal Year	Phase	Activity	Start Date	Completion Date
2024-25	Design	Professional Design Services (30/60/90/100); Environmental Planning (CEQA) and Permitting; Community Outreach; Agency Project Management	July 2024	June 2025
2025-26	Construction	Construction; Agency Project Management; Construction Administration; Survey and Staking; Completion of any remaining items from above.	July 2025	June 2026
2026-27	Construction	Construction; Agency Project Management; Construction Administration; Completion of any remaining items from above.	July 2026	June 2027
2027-28	Construction	Construction; Agency Project Management; Construction Administration; Completion of any remaining items from above.	July 2027	June 2028