

Safe, Clean Water Program

Fiscal Year 2021-2022

WASC Review Sheet



Project Name	
Project Lead	
Total SCW Funding Requested	
Phases for which SCW Funding is being requested	

Question	Yes/No	Notes
Does this project assist in achieving compliance with MS4 permit? If Yes, explain how.		
Does the project provide DAC benefits (refer to the ordinance for definition)? If Yes, explain how.		
Does the project provide benefits to the municipality? If Yes, explain how.		
Does the project prioritize nature-based solutions? If Yes, explain how.		
Does this meet the goals of the program stated in the ordinance (refer to Section 18.04)		
Does the project/scientific study have a nexus to stormwater and urban runoff capture and pollution reduction? If yes, explain how.		

Safe, Clean Water Program

Fiscal Year 2021-2022

WASC Review Sheet



Question	Yes/No	Notes
What is the plan for community engagement and what efforts have been made to date?		
What is the anticipated CEQA and permitting needs and how is this incorporated in the cost and schedule?		
Why is this the best location for this type of project?		
Were other alternatives considered? Why is this the best solution?		
How was the Project developed? (ie IRWMP/EWMP process, community engagement, etc...)		
If awarded partial funding by the WASCs, could the project fulfill their stated scope and benefits? If not funded, would the WASC lose the opportunity to fund this project at future rounds?		
General Notes (and follow up questions regarding any topic in the feasibility study/project submittal)		
Public Comments		



Lone Hill Stormwater Capture Project

Infrastructure Program

East San Gabriel Valley Watershed Management Group

Presenter: Alexis Holmdal PE, PMP, ENV SP (Stantec),
representing the ESGV WMG



Project Overview

This project proposes an underground infiltration gallery within Lone Hill Park, along with park improvements.

- Project Objectives:
 - **Capture stormwater to meet the MS4 Permit requirements**
 - Enhance water supply by providing opportunities for groundwater recharge through infiltration.
 - Create new recreational opportunities and enhance vegetation.
- This project is in the preliminary design phase; funding for design and construction is being requested
- Total Funding Requested: \$ 9,900,000

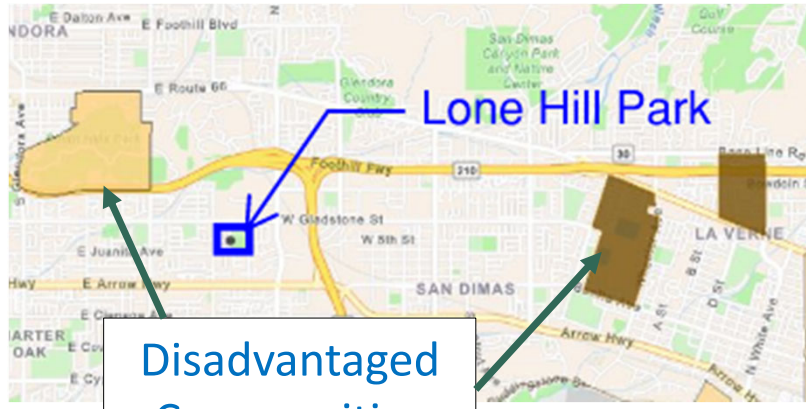
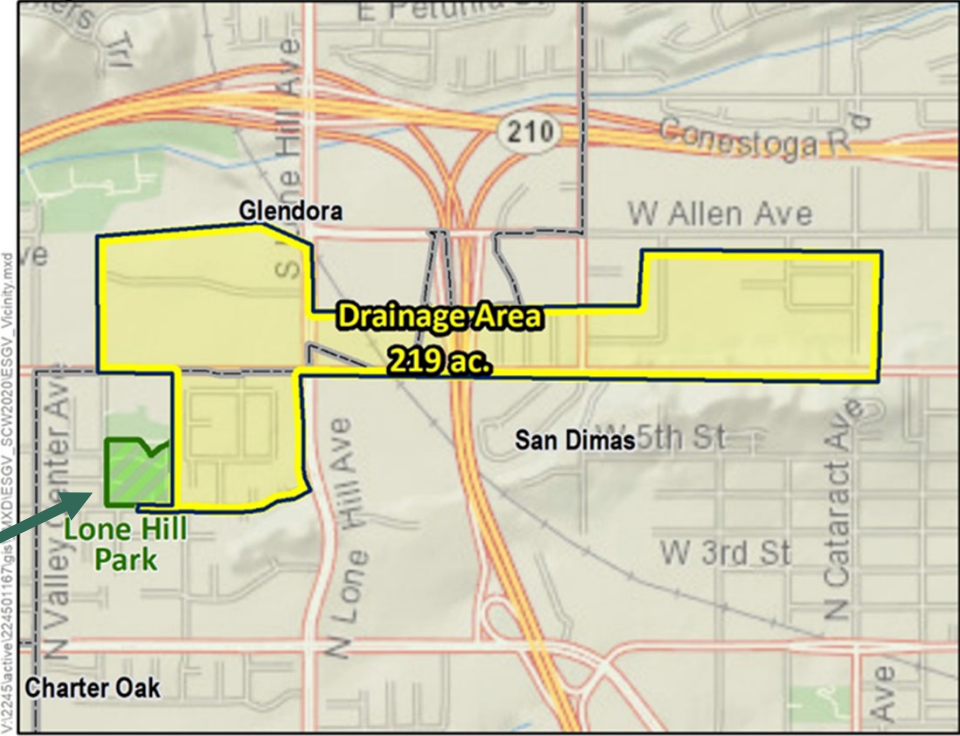




Project Location



Project Site: Lone Hill Park



Disadvantaged Communities



Project Background

- The East San Gabriel Valley Watershed Management Group consists of the City of Claremont, the City of La Verne, the City of Pomona, and the City of San Dimas.
- Per the East San Gabriel Valley (ESGV)'s Watershed Management Program (WMP) Plan, 543.9 acre-feet of stormwater capture projects needs to be implemented in the ESGV area to meet the WMP 100% milestone.
- This project's stormwater capture volume of 6.25 acre-feet will contribute towards meeting **4.9%** of the City of San Dimas' 126.9 acre-feet stormwater capture volume compliance target.



Project Details

Current Site Conditions

- A desktop feasibility analysis was completed for the site, which included analyzing site ownership, slope, soil type, site size, proximity to stormwater infrastructure, and depth to groundwater. **This site was deemed ideal due to the following:**
 - The site is located within the Main San Gabriel Basin.
 - The site is owned by the City of San Dimas.
 - The site has mild slopes ($\leq 10\%$).
 - The surface soils at the site promotes infiltration (Type A).
 - Depth to groundwater is ≥ 50 feet.



Project Details



Proposed Connection and Project Features

1. Connect to LACFCD's JUANITA AVENUE DRAIN (W Juanita Avenue, east of Kennedy Road). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then pumped to the infiltration gallery.
2. Connect to LACFCD's BI 1121 (W Gladstone Street at N Shellman Ave). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then pumped to the infiltration gallery.
3. Install an underground infiltration gallery within Lone Hill Park beneath a proposed parking lot, ADA accessible playground, and drought tolerant demonstration garden.
4. Connect emergency overflow pipe from the infiltration gallery to LACFCD's JUANITA AVENUE DRAIN (W Juanita Avenue at Shellman Ave).



Project Details

Proposed Project Features





Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Assuming approval occurs in August 2021, the development of 30% design drawings will begin in September 2021. It is assumed that 100% design drawings will be finished by August 2022.	\$900,000.00	08/2022
Construction	Assuming approval occurs in August 2021 and design finishes in August 2022, construction would begin in September 2022.	\$9,000,000.00	08/2024
TOTAL		\$9,900,000.00	

- Annualized Life-Cycle Cost: \$ 569,879.28
- Total Life-Cycle Cost: \$10,647,340.04 over 30 years



Funding Request

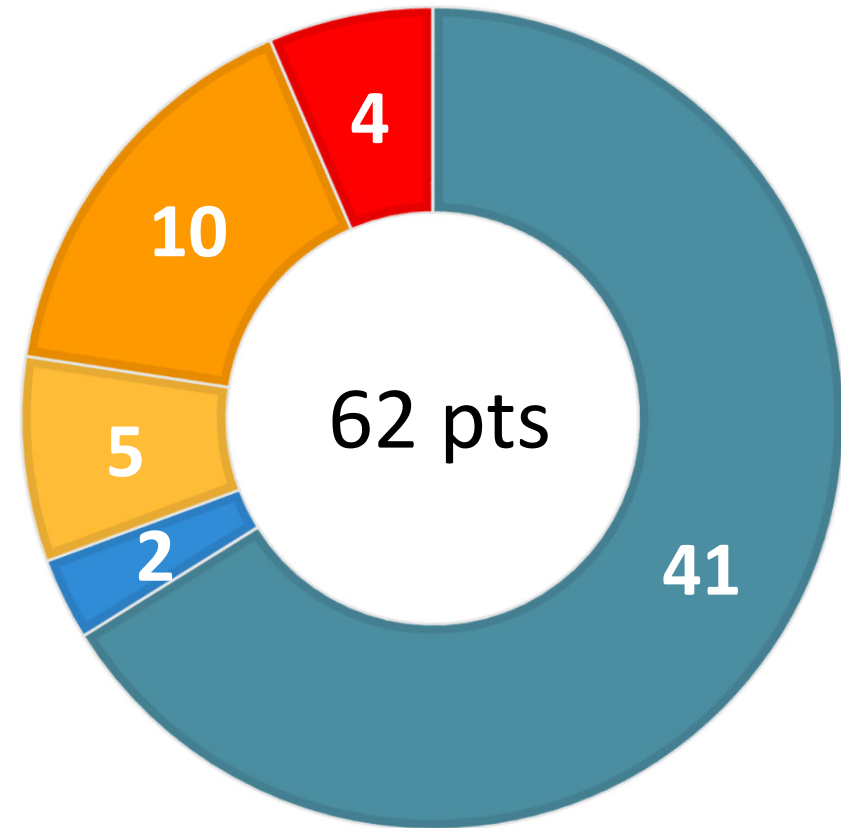
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$900,000.00	Design	Formal design drawings will be developed for the Lone Hill Park project (30%-100%).
2	\$9,000,000.00	Construction	Construction of the project will begin during 2022.
TOTAL	\$9,900,000.00		

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.



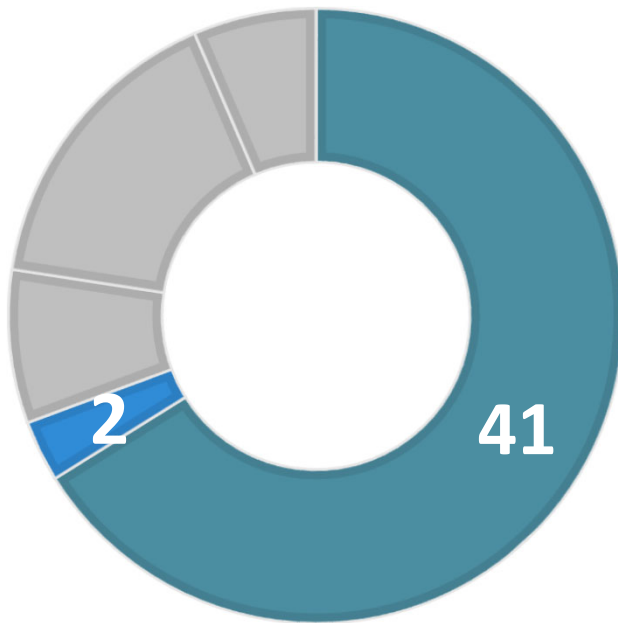
Preliminary Score

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





Water Quality & Water Supply Benefits



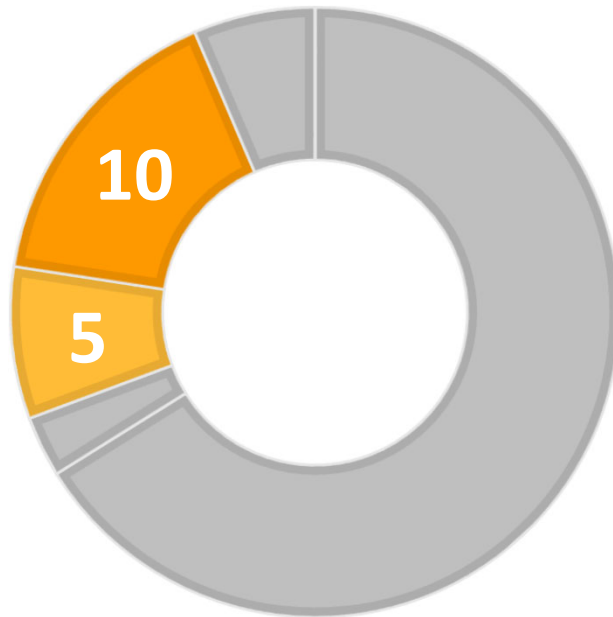
- The project will be sized to capture and infiltrate runoff associated with the 24-hour, 85th-percentile storm.
- Project Scoring: Wet weather
- Tributary Area: **219** ac
- 24-hr Capacity: **6.25** ac-ft
- 10-year Primary Pollutant Reduction, Total Zinc, is **87.7%**; 10-year Secondary Pollutant Reduction, Total Copper, is **86.3%**
- Annual Water Supply Volume: **98** ac-ft
- Water Supply aquifer in **Main San Gabriel Basin**
- Water Supply Cost Effectiveness: **\$5807** per ac-ft
- Water Quality Cost Effectiveness: **0.6-0.8** ac-ft / \$-Million



Community Investment Benefits and Nature Based Solutions

Community Investment Benefits

- Addition of drought tolerant garden with native plants.
- Installation of a new ADA accessible playground.
- Addition of native vegetation within the newly installed parking lot and surrounding project area that was previously turf.



Nature Based Solutions

- Installation of a below-ground infiltration system to infiltrate stormwater, which therefore decreases the impact of pollutants that would typically discharge into the receiving water, while maintaining use of the park's surface by the community.
- Increasing native vegetation in areas that were previously turf.



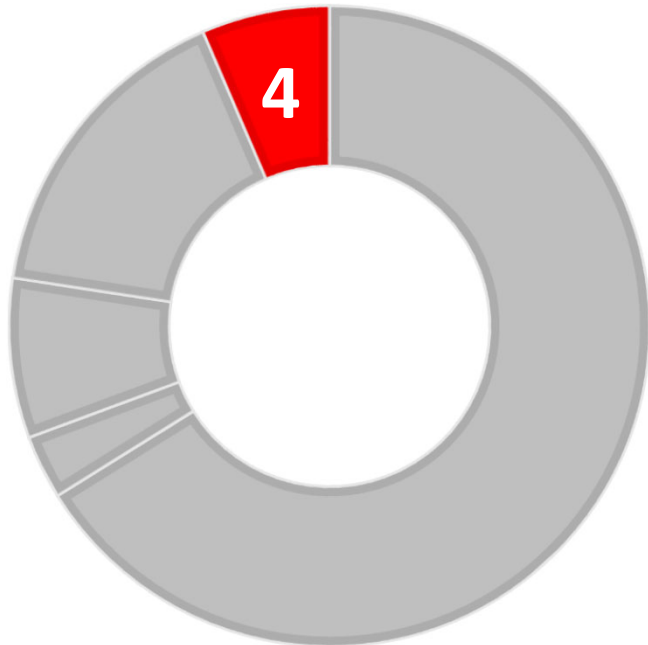
Leveraging Funds and Community Support

Leveraging Funds

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.

Community Support

- The project concept was presented at a city council and housing authority meeting. The project has support from the City Council of the City of San Dimas.
- If funded, this project will include outreach to the impacted community that lives near the park, or uses the park informally or formally, to seek input on construction scheduling and other potential impacts during implementation.
- This project is not expected to generate any displacement or gentrification pressure given the scale of the project and the nature of the surrounding community.





Questions?

An aerial photograph of a coastal city, likely San Francisco, with a blue overlay on the left side. The city's grid pattern and buildings are visible, along with a body of water on the right. The blue overlay contains white text.

Washington Park Stormwater Capture Project

Infrastructure Program

East San Gabriel Valley Watershed Management Group

Presenter: Alexis Holmdal PE, PMP, ENV SP (Stantec),
representing the ESGV WMG



Project Overview

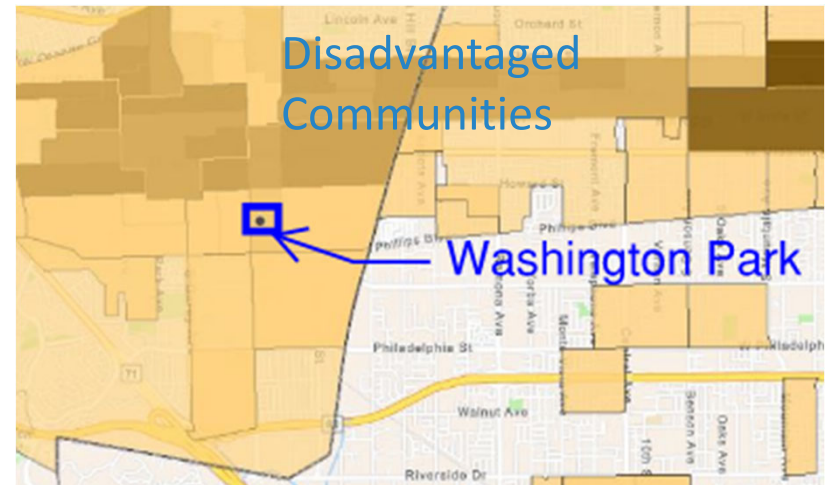
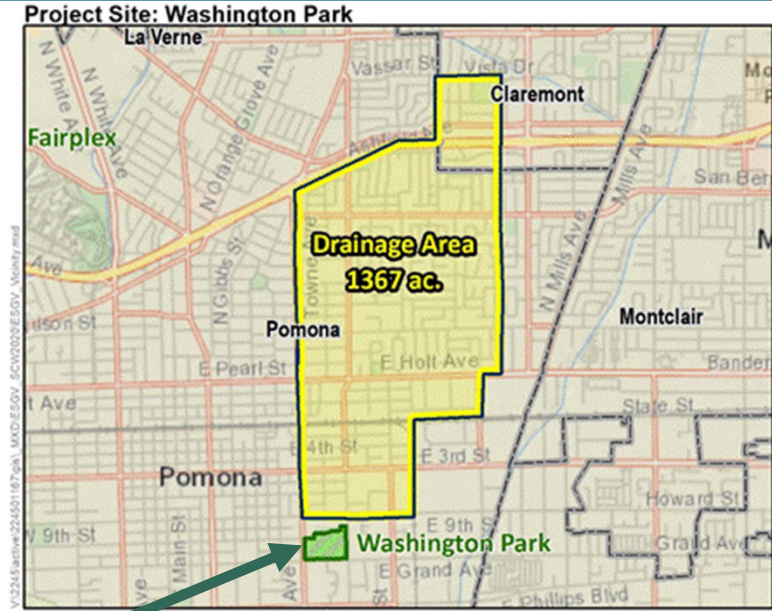
This project proposes an underground infiltration gallery within Washington Park, along with park improvements.

- Project Objectives:
 - **Capture stormwater to meet the MS4 Permit requirements**
 - Enhance water supply by providing opportunities for groundwater recharge through infiltration.
 - Create new recreational opportunities, enhance vegetation, and restore park spaces.
- This project is in the preliminary design phase; funding for design and construction is being requested
- Total Funding Requested: \$48,400,000





Project Location





Project Background

- This project's stormwater capture volume of 46.21 ac-ft will contribute toward Pomona's compliance with the Middle Santa Ana River Bacterial Indicator TMDL.
- This project will provide benefits to a disadvantaged community by augmenting water supply in the Chino Basin and incorporating park improvements identified in a public engagement process.



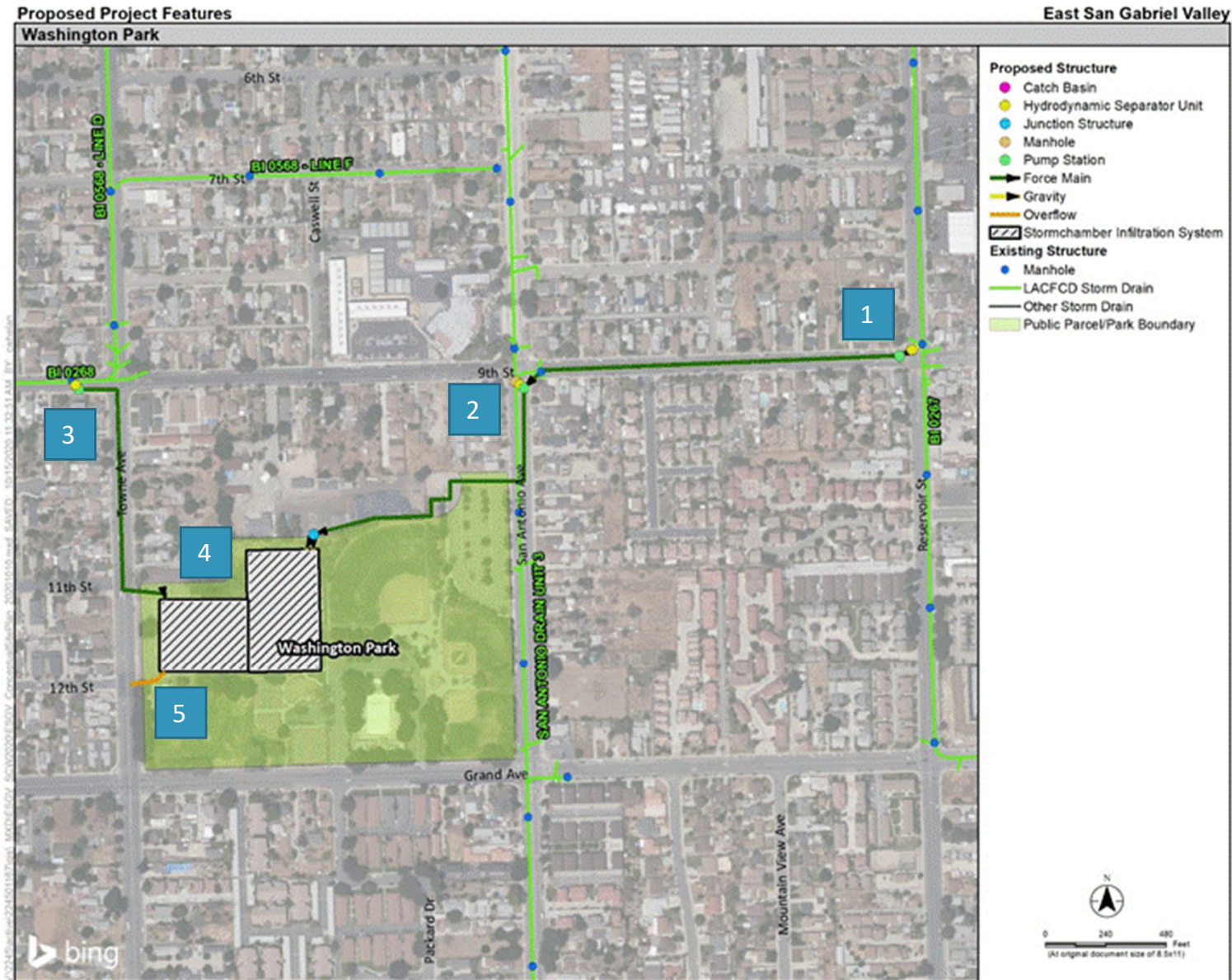
Project Details

Current Site Conditions

- A desktop feasibility analysis was completed for the site, which included analyzing site ownership, slope, soil type, site size, proximity to stormwater infrastructure, and depth to groundwater. **This site was deemed ideal due to the following:**
 - The site is located within the Chino Basin; this project will result in new stormwater recharge.
 - The site is owned by the City of Pomona.
 - The site has mild slopes ($\leq 10\%$).
 - The surface soils at the site promotes infiltration.
 - The site is in close proximity to existing storm drains.
 - Depth to groundwater is ≥ 50 feet.



Project Details



Proposed Connection and Project Features

1. Connect to LACFCD's BI 0267 (Reservoir Street). Flows will be conveyed via gravity into a hydrodynamic separator for pretreatment and then pumped to the proposed San Antonio Avenue pump station.
2. Connect to LACFCD's San Antonio Drain Unit 3 (San Antonio Ave). Flows will be conveyed via gravity into a hydrodynamic separator for pretreatment and then pumped to the infiltration gallery, along with flows from Reservoir Street.
3. Connect to LACFCD's BI 0268 (9th Street). Flows will be conveyed via gravity into hydrodynamic separator for pretreatment and then pumped to the infiltration gallery.
4. Install an underground infiltration gallery within Washington Park beneath the existing western parking lot and adjacent soccer fields.
5. Connect emergency overflow pipe from the infiltration gallery to Towne Avenue.



Project Details



Proposed Project Features

- New exercise equipment area
- Informational signage along path
- Expanded pathway with planting areas
- New paved parking lot
- Large boulders at edge of dripline for protection of oak tree within parking lot
- Rain garden for parking lot runoff



Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Assuming approval occurs in August 2021, the development of 30% design drawings will begin in September 2021. It is assumed that 100% design drawings will be finished by August 2022.	\$4,400,000	08/2022
Construction	Assuming approval occurs in August 2021 and design finishes in August 2022, construction would begin in September 2022.	\$44,000,000	08/2024
TOTAL		\$48,400,000	

- Total Lift-Cycle Cost: \$49,334,175.05 over 30 years
- Annualized Life-Cycle Cost: \$2,640,520.90



Funding Request

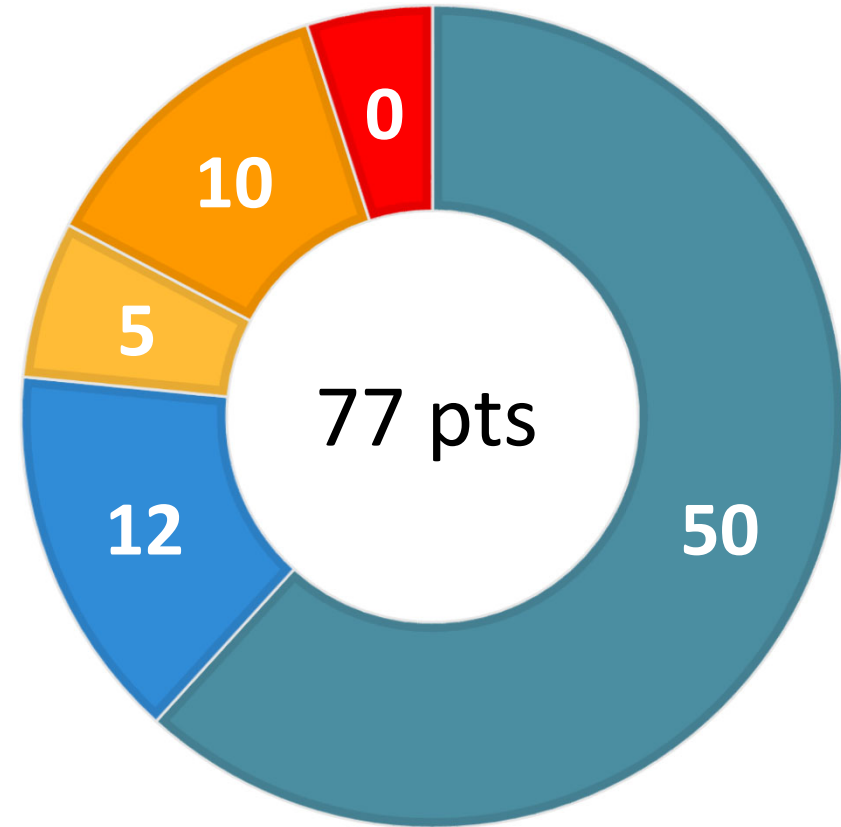
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$ 4,400,000	Design	Formal design drawings will be developed for the Washington Park project (30% - 100%).
2	\$ 44,000,000	Construction	Construction of the project will begin during 2022.
TOTAL	\$ 48,400,000		

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.



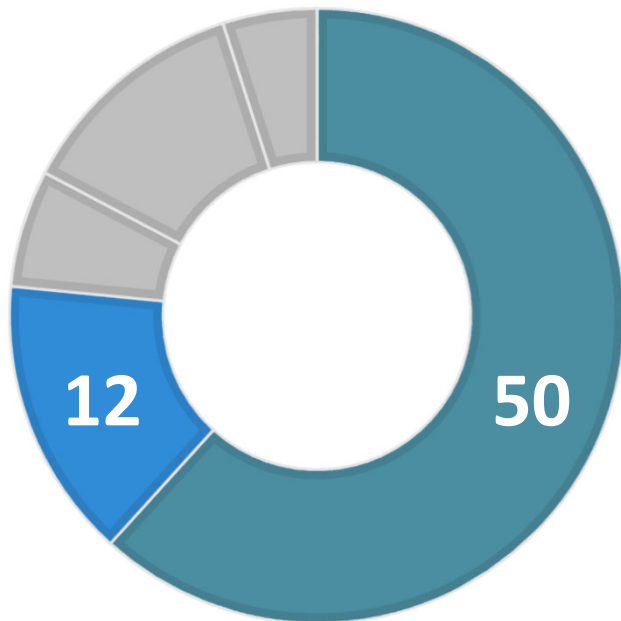
Preliminary Score

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





Water Quality & Water Supply Benefits



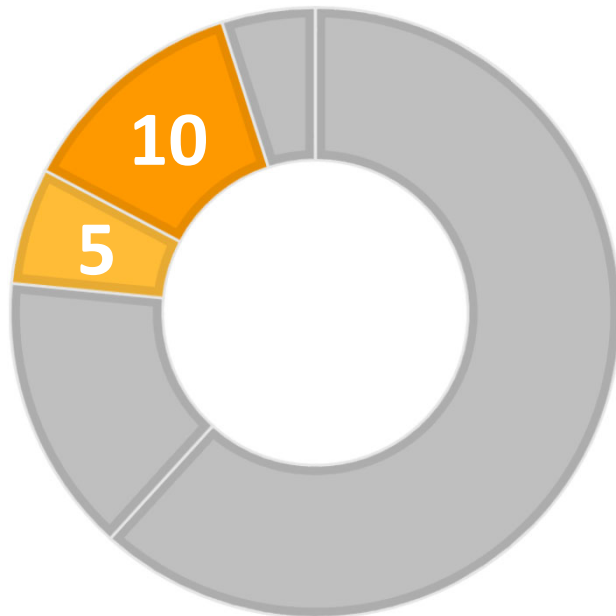
- The project will be sized to capture and infiltrate runoff associated with the 24-hour, 85th-percentile storm.
- Project Scoring: Wet weather
- Tributary Area: **1367** ac
- 24-hr Capacity: **46.21** ac-ft
- 10-year Primary Pollutant Reduction, Total Zinc, is **84.6%**; 10-year Secondary Pollutant Reduction, Total Copper, is **81.3%**
- Annual Water Supply Volume: **562** ac-ft
- Water Supply aquifer in **Chino Basin**
- Water Supply Cost Effectiveness: **\$4699** per ac-ft
- Water Quality Cost Effectiveness: **>1.0** ac-ft / \$-Million



Community Investment Benefits and Nature Based Solutions

Community Investment Benefits

- Addition of native plants adjacent to the expanded walkway.
- Installation of a new exercise area and enhancement of existing sports field
- Installation of rain garden within the parking lot.



Nature Based Solutions

- Installation of a below-ground infiltration system to infiltrate stormwater, which therefore decreases the impact of pollutants that would typically discharge into the receiving water, while maintaining the surface as usable space.
- Increasing native vegetation in areas that were previously gravel or turf.



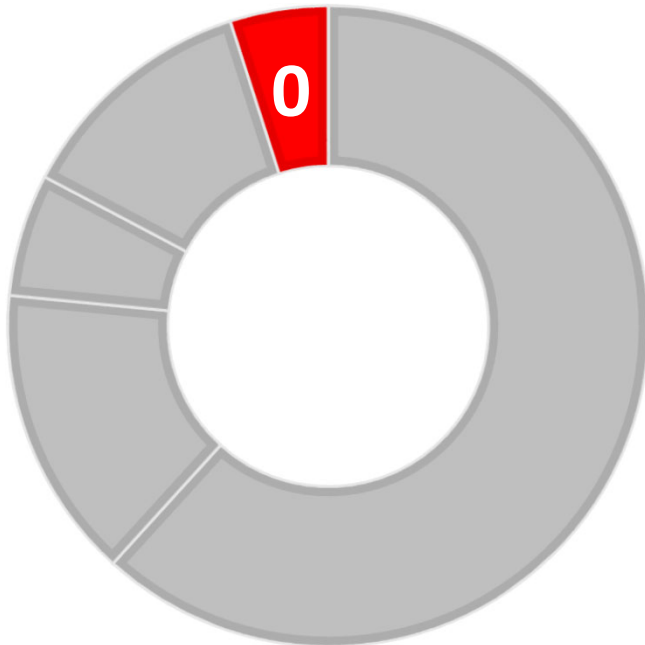
Leveraging Funds and Community Support

Leveraging Funds

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.

Community Support

- The stormwater elements of this project were not part of a public process. However, Washington Park has recently been subject of an extensive outreach effort associated with open space and recreation elements. City staff received feedback at two Parks & Recreation Commission meetings – one at city hall (6/20/19) and one at the park itself (7/18/19) – with participants in the park’s Senior Program (7/16/19), with youth in the park’s afterschool program (7/10/19), and with interested community members during a weekend event at the park (7/13/19). Because this submitted project incorporates some of the elements sought by the community, it benefits from that engagement effort and provides leverage both to and from the SCWP on behalf of the community.
- If funded, this project will be incorporated in public engagement activities related to the broader park revitalization that is underway. Any impacts of construction will be communicated with park users and user groups.





Questions?



Fairplex Stormwater Capture Project

Infrastructure Program

East San Gabriel Valley Watershed Management Group

Presenter: Alexis Holmdal PE, PMP, ENV SP (Stantec),
representing the ESGV WMG



Project Overview

This project proposes an underground infiltration gallery to be located beneath the existing Grandstand Field at the Fairplex.

- Objectives of this Project:
 - **Capture stormwater to meet the MS4 Permit requirements**
 - Enhance water supply by providing opportunities for groundwater recharge through infiltration.
 - Community investment based such as creation of recreational opportunities.
- This project is in the preliminary design phase; funding for design and construction is being requested
- Total Funding Requested: \$31,900,000

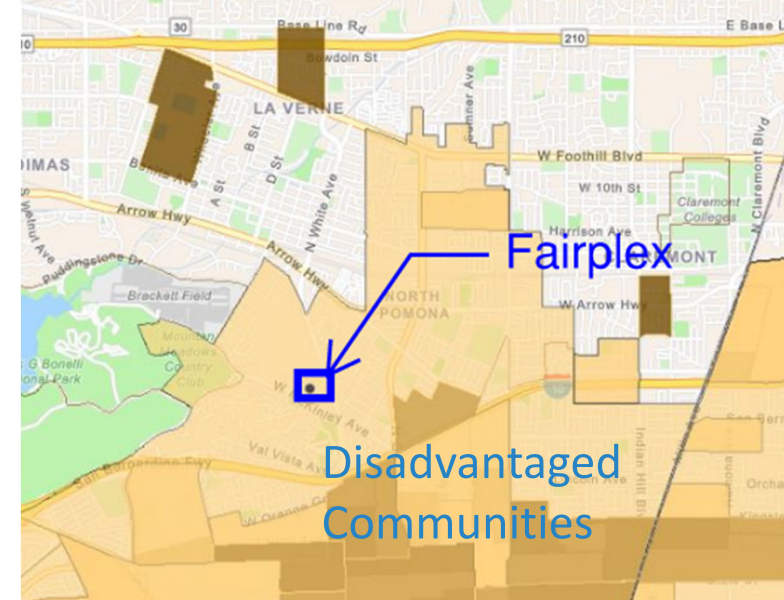
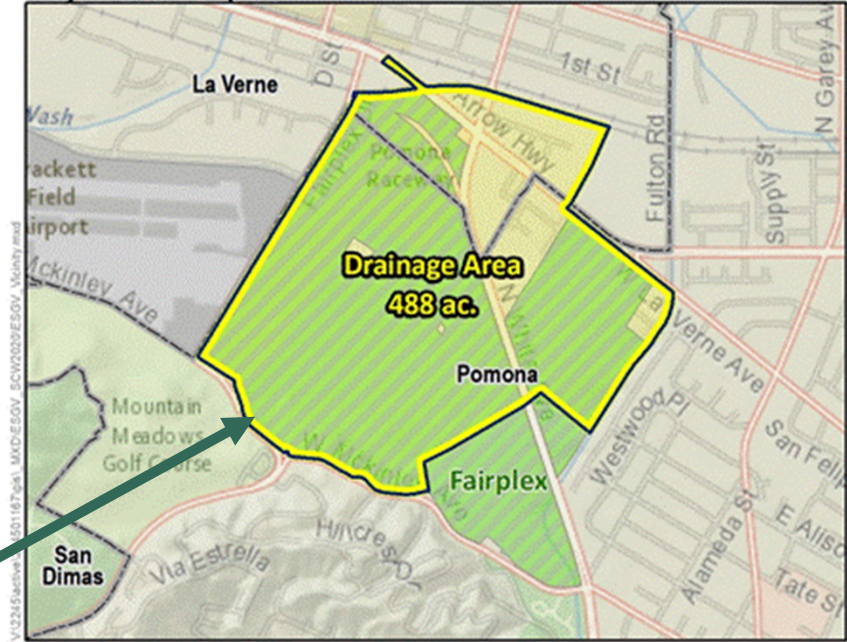




Project Location



Project Site: Fairplex





Project Background

- The East San Gabriel Valley Watershed Management Group consists of the City of Claremont, the City of La Verne, the City of Pomona, and the City of San Dimas.
- Per the East San Gabriel Valley (ESGV)'s Watershed Management Program (WMP) Plan, 543.9 acre-feet of stormwater capture projects needs to be implemented in the ESGV area to meet the WMP 100% milestone.
- This project's stormwater capture volume of 33 acre-feet will contribute towards meeting **11.1%** of the 297.3 acre-feet stormwater capture volume compliance target for the San Jose Creek watershed.



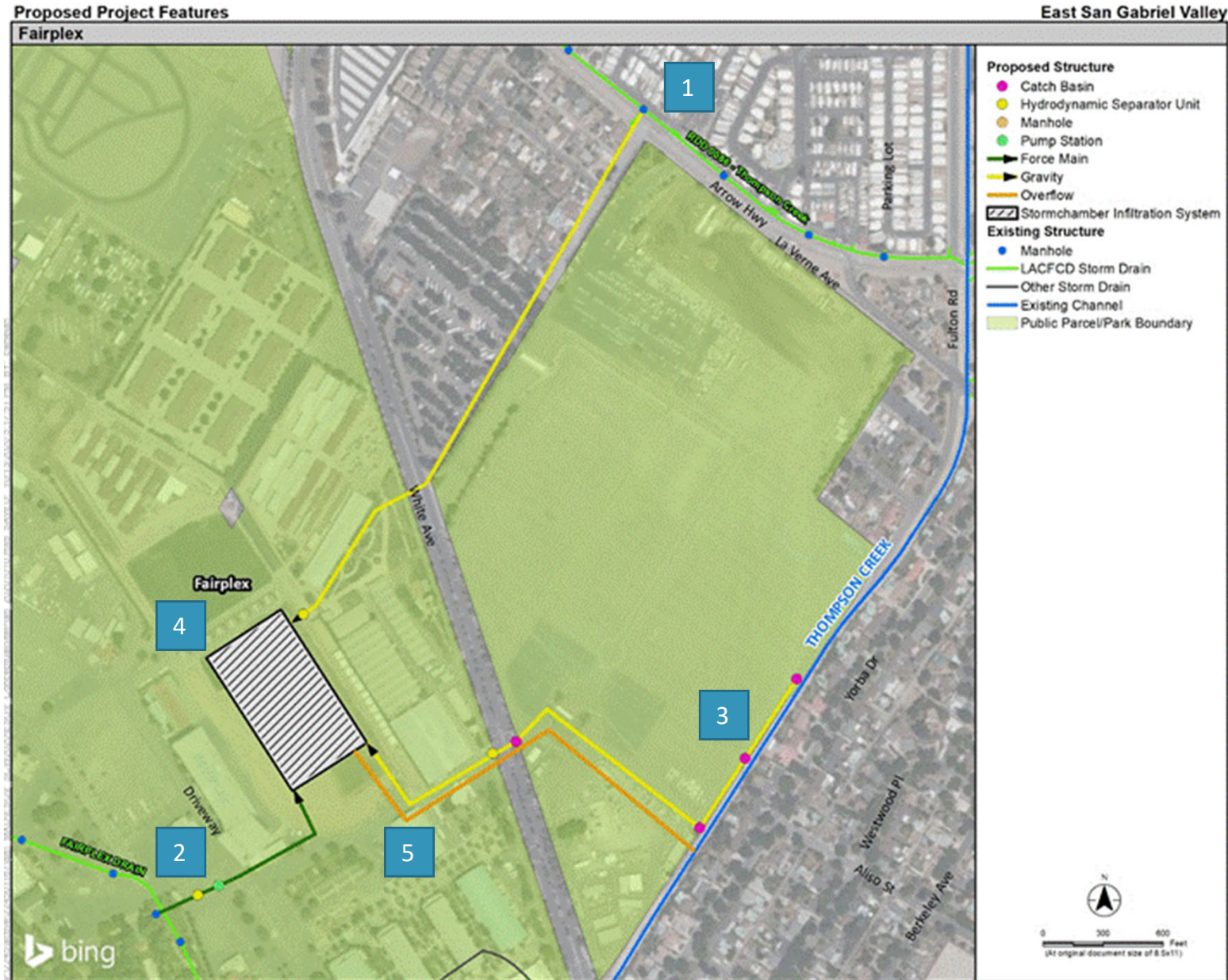
Project Details

Current Site Conditions

- A desktop feasibility analysis was completed for the site, which included analyzing the site ownership, slope, soil type, site size, proximity to stormwater infrastructure, and depth to groundwater. **This site was deemed ideal due to the following:**
 - The site is located within the Six Basins.
 - The site is owned by the County of Los Angeles.
 - The site has mild slopes ($\leq 10\%$).
 - The surface soils at the site promotes infiltration (Type B).
 - The site is in close proximity to existing storm drains.
 - Depth to groundwater is ≥ 50 feet.



Project Details



Proposed Connection and Project Features

1. Divert from LACFCD's RDD0086 – THOMPSON CREEK (W Arrow Hwy). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then conveyed via gravity to the infiltration gallery.
2. Divert from LACFCD'S FAIRPLEX DRAIN (North of W McKinley Ave). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then pumped to the infiltration gallery.
3. Install a new catch basin adjacent to Thompson Creek and drainage conveyance. Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then conveyed to the infiltration gallery.
4. Install an underground infiltration gallery within Grandstand Field on the Fairplex grounds.
5. Connect emergency overflow pipe from the infiltration gallery to Thompson Creek.



Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Assuming approval occurs in August 2021, the development of 30% design drawings will begin in September 2021. It is assumed that 100% design drawings will be finished by August 2022.	\$2,900,000	08/2022
Construction	Assuming approval occurs in August 2021 and design finishes in August 2022, construction would begin in September 2022.	\$29,000,000	08/2024
TOTAL		\$31,900,000	

- Total Lift-Cycle Cost: \$32,647,340 over 30 years
- Annualized Life-Cycle Cost: \$1,747,389



Funding Request

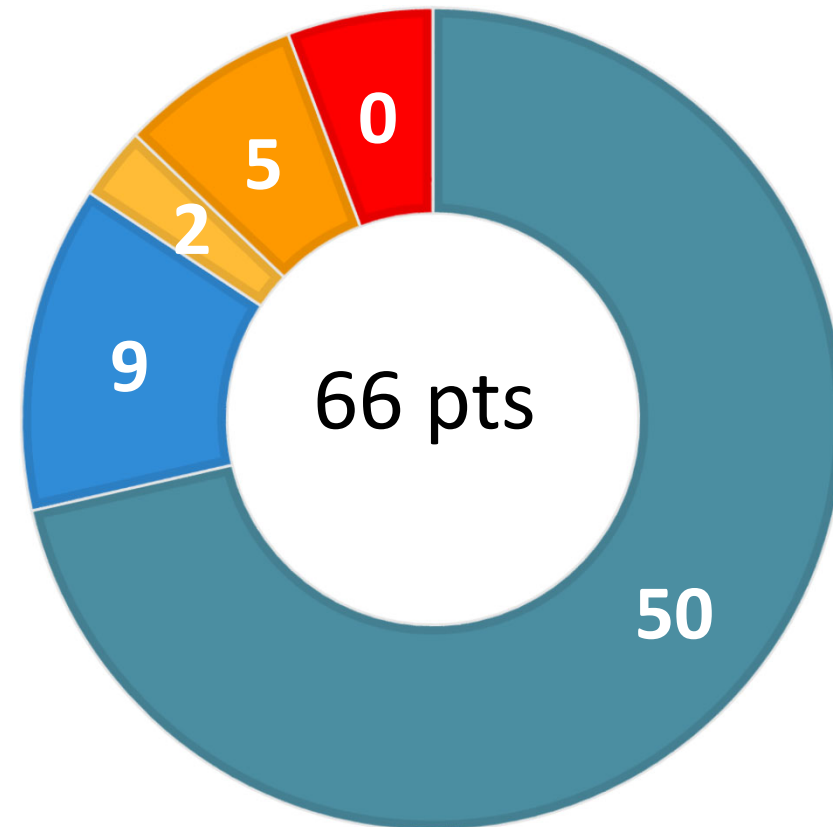
Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$2,900,000.00	Design	Formal design drawings will be developed for the Fairplex project (30% - 100%).
2	\$29,000,000.00	Construction	Construction of the project will begin during 2022.
TOTAL	\$31,900,000.00		

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.



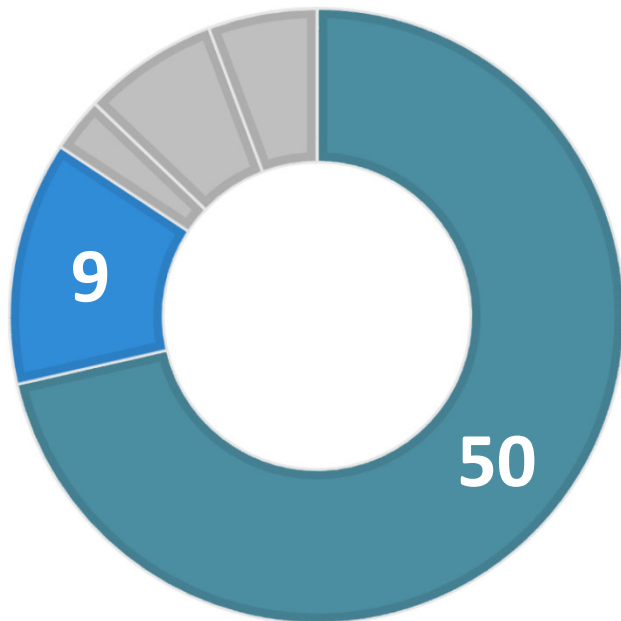
Preliminary Score

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





Water Quality & Water Supply Benefits



- The project was sized to capture and infiltrate runoff associated with the 24-hour, 85th-percentile storm.
- Project Scoring: Wet weather
- Tributary Area: **488** ac
- 24-hr Capacity: **33** ac-ft
- 10-year Primary Pollutant Reduction, Total Copper, is **97.9%**; 10-year Secondary Pollutant Reduction, Total Zinc, is **98.1%**
- Annual Water Supply Volume: **296** ac-ft
- Water Supply aquifer in **Six Basins**
- Water Supply Cost Effectiveness: **\$5,911** per ac-ft
- Water Quality Cost Effectiveness: **>1.0** ac-ft / \$-Million



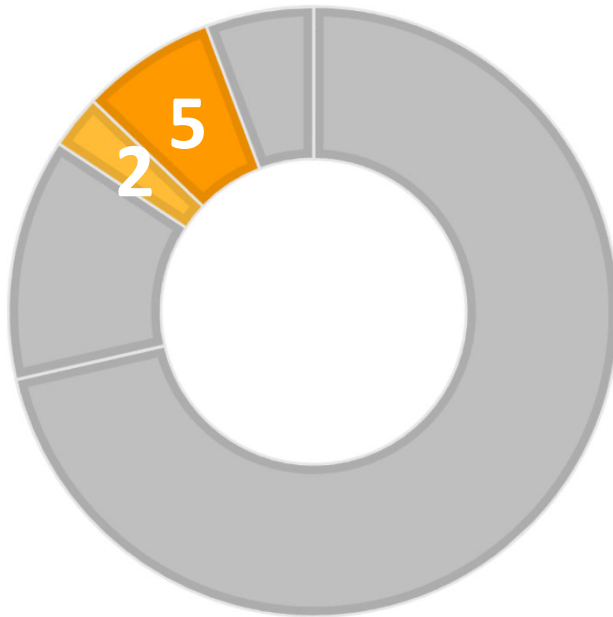
Community Investment Benefits and Nature Based Solutions

Community Investment Benefits

- Restore and improve Grandstand Field.

Nature Based Solutions

- Installation of a below-ground infiltration system to infiltrate stormwater, which therefore decreases the impact of pollutants that would typically discharge into the receiving water, while maintaining the surface as usable space.





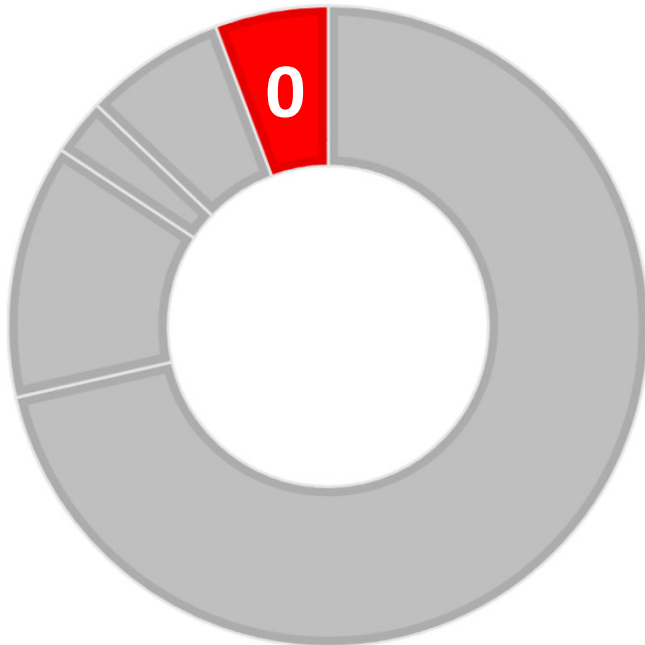
Leveraging Funds and Community Support

Leveraging Funds

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.

Community Support

- The City of Pomona has engaged in discussions with the Los Angeles County Fair Association to coordinate development of this project at the Fairplex. During this engagement, there was agreement that Los Angeles County Fair Association would provide a letter of support. However, due to COVID-19, the Los Angeles County Fair Association had a reduction in staff, which has resulted in delay in receiving this letter of support.
- A specific plan is going to be developed by the Los Angeles County Fair Association for the Fairplex in coordination with the local community. Project specific input from the community will also be sought during the design phase.





Questions?



Larkin Park Stormwater Capture Project

Infrastructure Program

East San Gabriel Valley Watershed Management Group

Presenter: Alexis Holmdal PE, PMP, ENV SP (Stantec),
representing the ESGV WMG



Project Overview

This project proposes an underground infiltration gallery within Larkin Park, along with a parking lot bioswale and park upgrades.

- Objectives of this Project:
 - **Capture stormwater to meet the MS4 Permit requirements**
 - Enhance water supply by providing opportunities for groundwater recharge through infiltration.
 - Create new recreational opportunities by including components from the Larkin Park Campus Master Plan.
- This project is in the preliminary design phase; funding for design and construction is being requested
- Total Funding Requested: \$ 23,100,000.00

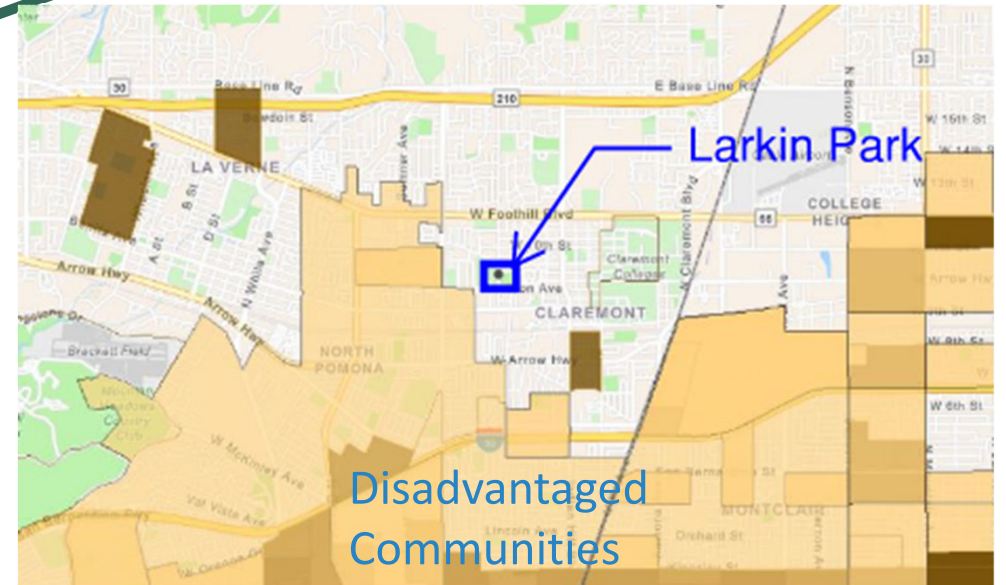
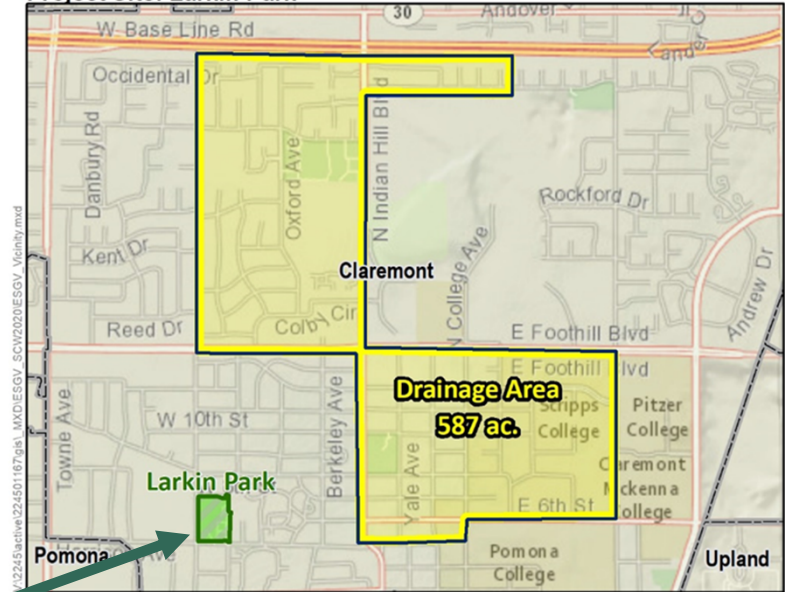




Project Location



Project Site: Larkin Park





Project Background

- The East San Gabriel Valley Watershed Management Group consists of the City of Claremont, the City of La Verne, the City of Pomona, and the City of San Dimas.
- Per the East San Gabriel Valley (ESGV)'s Watershed Management Program (WMP) Plan, 543.9 acre-feet of stormwater capture projects needs to be implemented in the ESGV area to meet the WMP 100% milestone.
- This project's stormwater capture volume of 13.9 acre-feet will contribute towards meeting **16.3%** of the City of Claremont's 85.2 acre-feet stormwater capture volume compliance target.



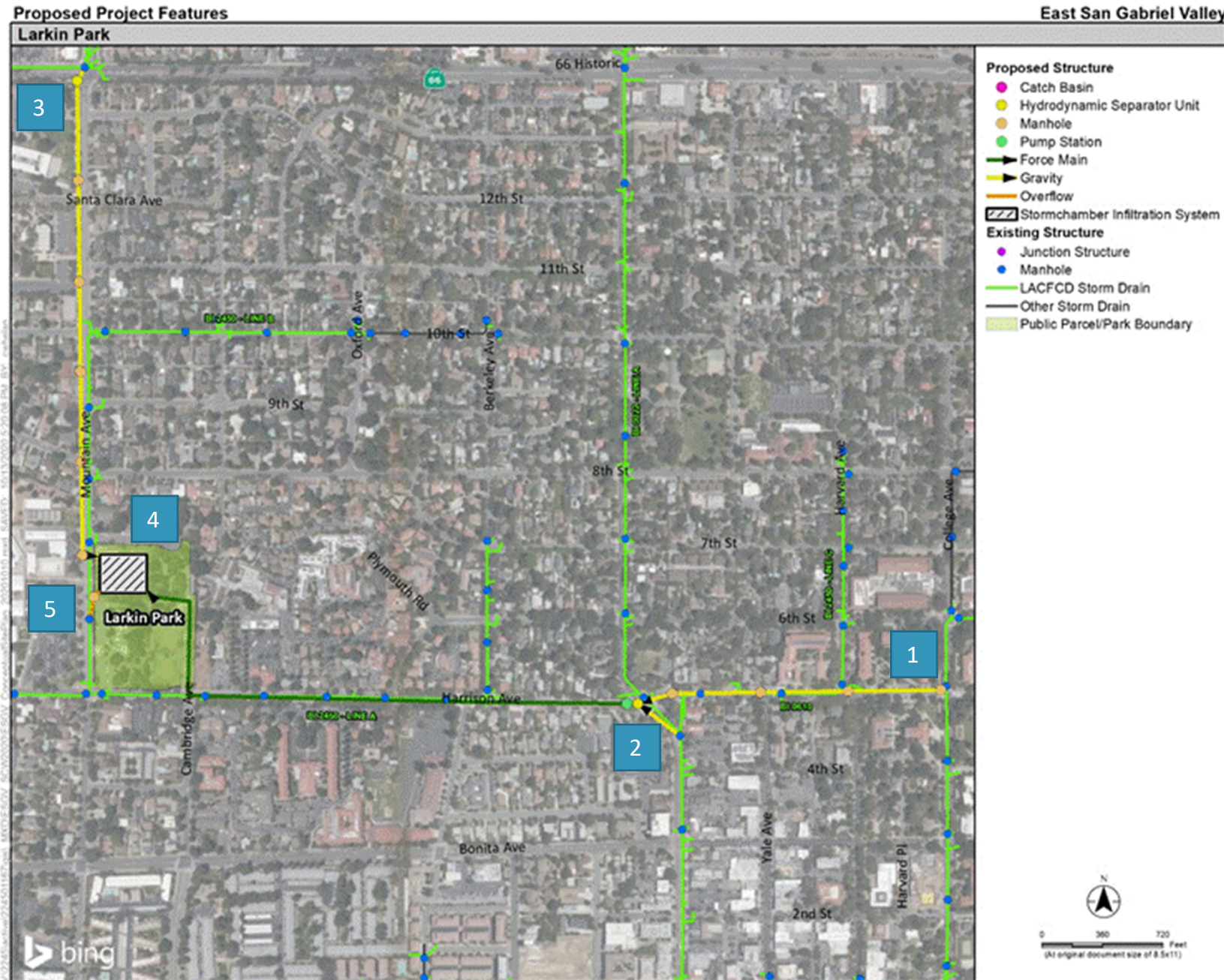
Project Details

Current Site Conditions

- A desktop feasibility analysis was completed for the site, which included analyzing site ownership, slope, soil type, site size, proximity to stormwater infrastructure, and depth to groundwater. **This site was deemed ideal due to the following:**
 - The site is located within the Six Basins; this project will result in new stormwater recharge.
 - The site is owned by the City of Claremont.
 - The site has mild slopes ($\leq 10\%$).
 - The surface soils at the site promotes infiltration (Type A).
 - Depth to groundwater from proposed infiltration gallery invert is 48-feet.



Project Details



Proposed Connections and Project Features

1. Connect to LACFCD'S BI 0419 – LINE A (College Ave). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then conveyed via gravity to the proposed pump station on Harrison Ave
2. Connect to LACFCD's BI 0022 – LINE A (N Indian Hill Blvd). Flows will be conveyed via gravity to a hydrodynamic separator for pretreatment and then pumped to the infiltration gallery, along with flows from College Ave.
3. Connect to LACFCD's BI 2401 – LINE B (N Mountain Ave). Flows will be conveyed via gravity to a hydrodynamic separator before being conveyed via gravity to the infiltration gallery.
4. Install an underground infiltration gallery within Larkin Park beneath the existing softball field.
5. Connect emergency overflow pipe from the infiltration gallery to BI 0419 – LINE C (N Mountain Ave).



Project Details



Proposed Project Features

- Add recreational opportunities, including a tot-lot, exercise station, and a basketball half-court. These features were included in the Larkin Park Campus Master Plan, developed in 2012 for the City of Claremont.
- Add native plants and bioswale to eastern parking lot in existing curbed planter.



Cost & Schedule

Phase	Description	Cost	Completion Date
Design	Assuming approval occurs in August 2021, the development of 30% design drawings will begin in September 2021. It is assumed that 100% design drawings will be finished by August 2022.	\$2,100,000	08/2022
Construction	Assuming approval occurs in August 2021 and design finishes in August 2022, construction would begin in September 2022.	\$21,000,000	08/2024
TOTAL		\$23,100,000	

- Total Lift-Cycle Cost: \$23,847,340.04 over 30 years
- Annualized Life-Cycle Cost: \$1,276,384.98



Funding Request

Year	SCW Funding Requested	Phase	Efforts during Phase and Year
1	\$ 2,100,000	Design	Formal design drawings will be developed for the Larkin Park project (30% - 100%).
2	\$ 21,000,000	Construction	Construction of the project will begin during 2022.
TOTAL	\$ 23,100,000		

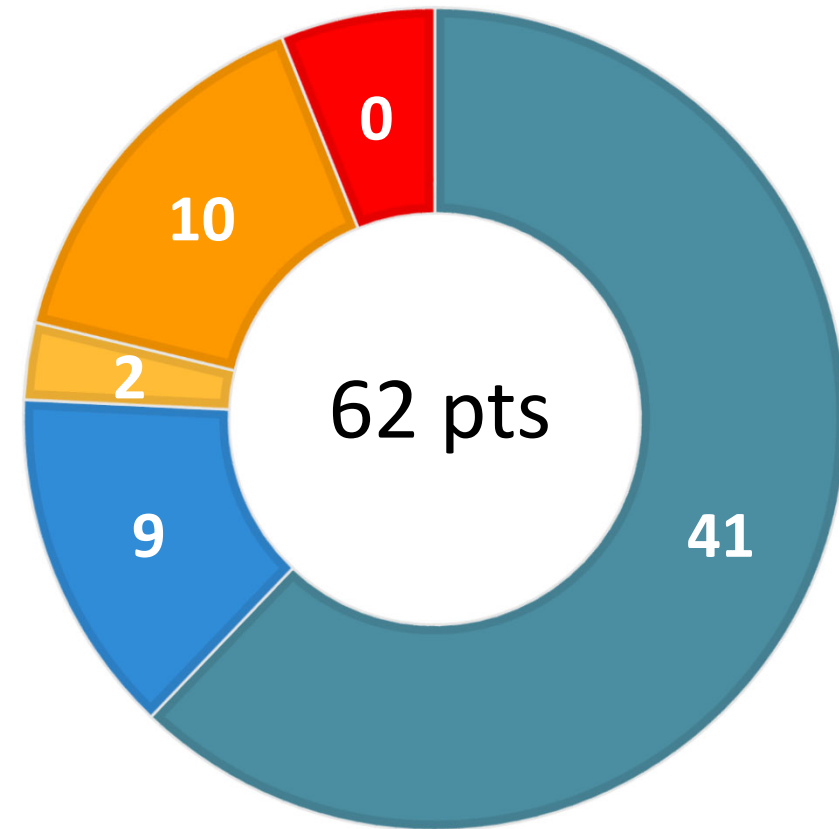
- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.



Preliminary Score

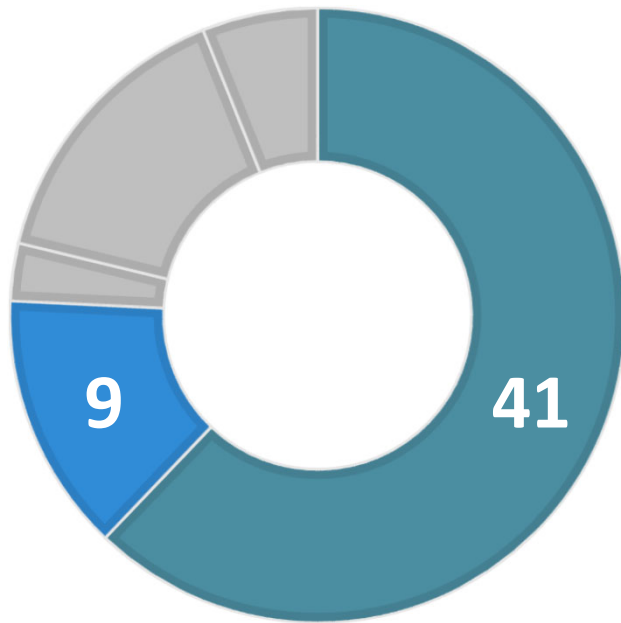
CS3

- Water Quality
- Water Supply
- Community Investment Benefits
- Nature Based Solutions
- Leveraged Funds and Community Support





Water Quality & Water Supply Benefits



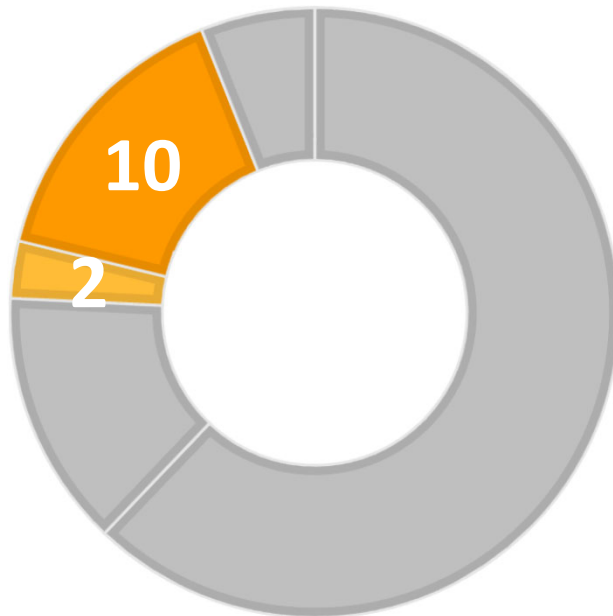
- The project will be sized to capture and infiltrate runoff associated with the 24-hour, 85th-percentile storm.
- Project Scoring: wet weather
- Tributary Area: **587** ac
- 24-hour Capacity: **13.9** ac-ft
- 10-year Primary Pollutant Reduction, Total Zinc, is **93.9%**; 10-year Secondary Pollutant Reduction, Total Nitrogen, is **92.4%**
- Annual Water Supply Volume: **237** ac-ft
- Water supply aquifer in **Six Basins**
- Water Supply Cost Effectiveness: **\$5,392** per ac-ft
- Water Quality Cost Effectiveness: **0.6-0.8** ac-ft / \$-Million



Community Investment Benefits and Nature Based Solutions

Community Investment Benefits

- Addition of native plants and bioswale to the eastern parking lot
- New recreational opportunities, which include a tot-lot, exercise station, and a basketball half-court; these features were included in the Larkin Park Campus Master Plan, developed in 2012 for the City of Claremont.



Nature Based Solutions

- Installation of a below-ground infiltration system to infiltrate stormwater, which therefore decreases the impact of pollutants that would typically discharge into the receiving water, while maintaining use of the park's surface by the community.
- Installation of a bioswale with native plants to treat parking lot surface runoff.



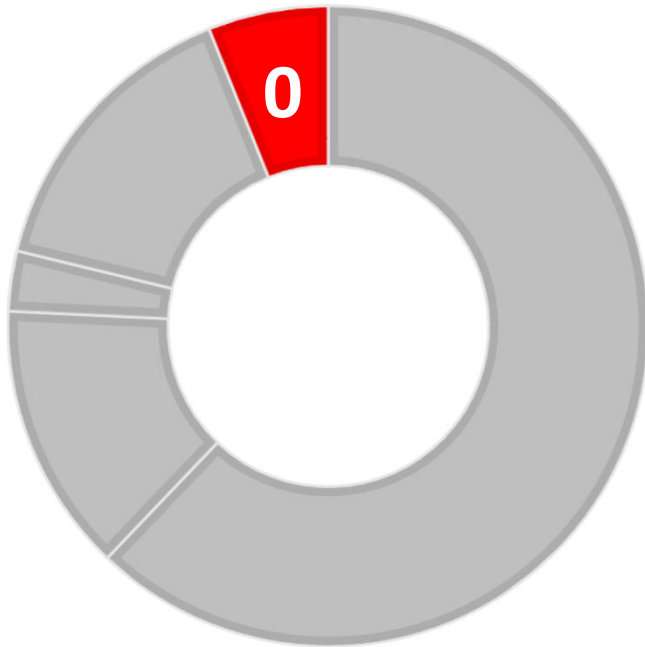
Leveraging Funds and Community Support

Leveraging Funds

- This project is in the preliminary design phase and therefore other funding sources have not been explored or secured.

Community Support

- This project has support from the City of Claremont.
- This project was not vetted through a public process during its design. However, project features included in the Larkin Park Campus Master Plan, developed in 2012 for the City of Claremont, have been incorporated into this project.
- If funded, this project will include outreach to the impacted community that lives near the park, or uses the park informally or formally, to seek input on construction scheduling and other potential impacts during implementation.
- This project is not expected to generate any displacement or gentrification pressure given the scale of the project and the nature of the surrounding community.





Questions?