

Safe, Clean Water Program

South Santa Monica Bay

Watershed Area Steering Committee (WASC)



Meeting Minutes:

Wednesday, February 19, 2020
1:00pm - 3:00pm
Edward C. Little Water Recycling Facility,
1935 S. Hughes Way, El Segundo, CA 90245

Attendees

Committee Members Present:

| | |
|--|--|
| Cung Nguyen (LA County Flood Control District) | Wendy Butts (LA Conservation Corps) |
| Kristen Ruffell (Sanitation Districts) | Darryl Ford* (Los Angeles Rec & Park) |
| Craig Cadwallader (Surfrider Foundation South Bay) | Shawn Igoe* (Manhattan Beach) |
| Diane Gatza (Water Replenishment District) | Julio Gonzalez (Carson) |
| EJ Caldwell (West Basin) | Guang Yu Wang (SMB Restoration Commission) |
| Wilson Mendoza* (Torrance) | Heecheol Kwon (Hawthorne) |
| Susie Santilena (LA) | Hany Fangary (Fangary Law Group) |
| TJ Moon* (LA County) | |
| Ken Rukavina (Palos Verdes Estates) | |

Committee Members Not Present:

Alison Suffet-Diaz (Environmental Charter School)

*Committee Member Alternate

See attached sign-in sheet for full list of attendees

1. Welcome and Introductions

Diane Gatza, Chair of the South Santa Monica Bay WASC, called the meeting to order.

All committee members made self-introductions, and a quorum was established.

2. Approval of Meeting Minutes from February 9, 2020

The District provided a copy of the meeting minutes from the previous meeting. Diane Gatza asked the committee members for comments or revisions.

Kristen Ruffell made a motion to approve the meeting minutes. Susie Santilena seconded the motion. The Committee voted to approve the meeting minutes. (unanimous).

3. Committee Member and District Updates

a) Regional Watershed Coordinator Updates

Kirk Allen provided the District update, noting: the request for statement of qualifications for Watershed Coordinators is expected in April, with proposals due in May; the WASC GIS Tool is now available; the draft fund transfer agreement is expected in March, with board approval in May; the General Low Income Tax Reduction form is now available online; and that stipends are available for eligible committee members.

b) Scoring Committee Update

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South Santa Monica Bay

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Kirk Allen provided an update on the Scoring Committee (SC) and their progress, noting that the final round of scoring is now complete. Within the SSMB, all projects have passed the threshold score, and a scoring sheet has been made available for the SSMB WASC.

c) Follow-up discussion from previous meeting

Diane Gatza noted the recommendation to add a second comment period has been made available in this current agenda.

4. Public Comment Period

No public comments received

5. Discussion Items:

a) Ex Parte Communication Disclosures

No members have had any ex parte communications to disclose

b) Presentations

i) Eastview Park (Rancho Palos Verdes)

Craig Cadwallader inquired why the current concept is exploring a longer pipe, when a shorter route exists. Rancho Palos Verdes noted that the shorter pipe would have to go through private property.

Susie Santilena inquired if this was the only regional projects in the EWMP. Rancho Palos Verdes noted that this was the only project for Palos Verdes.

Wendy Butts requested the TRP funding amount. Rancho Palos Verdes noted that the TRP ask was only for \$300k. Kirk Allen clarified that the LACFCD would be handling the development of TRP projects and that this would be a service provided by LACFCD on behalf of the applicants.

Kristen Ruffell inquired what level of effort LACFCD would provide for the TRP. Kirk Allen clarified that each project will have different requirements, such as a geotechnical investigation, so the level of effort will be different for each TRP.

TJ Moon inquired if the treatment system can be built on top of the trunk lines, or if the project can discharge back into the trunk line. Rancho Palos Verdes noted that the line discharges into the ocean and could not be used for that purpose.

ii) Coordinated Safe Clean Watershed Plans (City of Los Angeles)

Wilson Mendoza inquired if this plan was just an update to the EWMP. Los Angeles noted that it would require a partner funded effort to update to the RAA.

Diane Gatza inquired if the \$1.22M would be requested for the first year. Los Angeles noted that the funding request would be broken primarily into two years.

Diane Gatza inquired if this study fits within the scientific studies program. Los Angeles noted that the modeling effort for water quality would be a major part of the special study.



Guang Yu Wang inquired how this project differs from the original EWMP plans. Los Angeles noted that the monitoring data has become higher resolution and better data is now available compared to the original EWMP. This will allow this study to improve understanding of water quality issues.

Kristen Ruffell inquired if the city is coordinating with other cities. Los Angeles noted that it is coordinating with the Dominguez group.

Diane Gatza inquired what would happen if the study only received partial funding. Los Angeles noted that the scope would likely change, but that it would depend on how much funding was awarded.

iii) Recalculation of Zinc Wet Weather Criterion (City of Los Angeles)

Guang Yu Wang inquired if the Regional Board supports this study. Los Angeles noted that the Regional Board is aware of this project, and that there have been site specific objectives for zinc.

Guang Yu Wang requested the data sources used for the study. Los Angeles noted that sources include national studies on zinc impact studies on different species.

Kristen Ruffell inquired if internal staff or a consultant will be used for this process. Los Angeles noted that it would be a consultant to carry out this study.

Diane Gatza inquired if this would be a study on ocean or freshwater. Los Angeles noted that it would be a study on freshwater at the outfalls for wet weather targets, and that the study would only be done on existing monitoring data. Diane Gatza inquired if the City's intent was to reduce the standard set by the Regional Board. Los Angeles noted that it is the hope that this study will lead to a more achievable goal for zinc, but that the standard could potentially go higher.

iv) Regional Scientific Study to Support Protection of Human Health through Targeted Reduction of Bacteriological Pollution (Rich Watson)

Heecheol Kwon inquired what groups are currently working on this study. Rich Watson noted that he has been working with a number of other groups on this study. Heecheol Kwan noted that this study may overlap with an existing bacteria study. Rich Watson noted that the Upper LA River studies will be similar but will feed into each other, and that this study will look into human markers specifically.

Heecheol Kwon inquired if this study could be part of the MS4 requirements. Rich Watson noted that those requirements are why this study is being presented, and this study is aiming to narrow down the focus to human markers.

Susie Santilena inquired if this study would establish a limit on human markers. Rich Watson noted that he has been in contact with SCCRWP to discuss this topic and provide that data to the Regional Board to set critical bacteria levels for the region.

Diane Gatza inquired how this study will impact regulation. Rich Watson noted that this study would provide the Water Quality Control Boards with better local data, who are open to updating standards.

v) South Santa Monica Bay Watershed Innovation Platform (City of Carson on behalf of the Dominguez Channel Watershed Management Group) – Pending Confirmation

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Kristen Ruffell inquired about phasing the funds. Carson noted that implementation is intended to be conducted rapidly, so the pace of the project could be adjusted to make it work.

Guang Yu Wang inquired how this project relates to the Los Angeles Study or if it will fit into that study. Carson noted that the study is intended to determine specifics between IGP and the MS4, and there could be opportunities to expand the knowledge for the EWMPs.

Kristen Ruffell inquired that with IGP compliance deadlines due this year, how would the study be impacted. Carson noted that while the targets and deadlines are this year, there is still uncertainty for how permittees can comply with those targets, and that industrial dischargers are eager to find out more about this study. Kristen Ruffell inquired if Carson has asked the Regional Board to extend the deadlines. Carson noted that without this study, it will be difficult to reach these goals

Susie Santilena inquired if this study will explore other permittees other than IGP. Carson noted that yes other types would be explored.

6. Public Comment Period

No public comments received

7. Decision Making and Scoring Process Discussion:

Kirk Allen noted that a tool is being developed to help the WASC budget and schedule projects, concepts, and studies for the SIP for the upcoming meetings. The tool is not yet available, but will be ready in time for the next discussion meeting.

Diane Gatza requested the District send a table on all projects and the phased funding ask for the next meeting.

Kristen Ruffell requested the District provide a table with city benefit breakdown is for each project program.

Diane Gatza clarified that only the first year is being budgeted, and that future years will be a projection.

Diane Gatza requested the District provide a summary of municipal returns within the SSMB WASC.

8. Voting Items

None

9. Items for next agenda

Diane Gatza suggested that meetings should shift to once a month after March.

9. Adjournment

Diane Gatza thanked the committee members and public for their time and participation and adjourned the meeting.

South Santa Monica Bay
 Watershed Area Steering Committee Meeting
 COMMITTEE MEMBER AND ALTERNATE SIGN-IN



| Member Name | Municipality/ Organization | Email Address | | Signature |
|----------------------|--|--------------------------------|---|-----------|
| Cung Nguyen | FCD | CUNGUYEN@dpw.lacounty.gov | P | |
| Carolina Hernandez | FCD | CHERNANDEZ@dpw.lacounty.gov | A | |
| Diane Gatza | Water Replenishment District | dgatza@ wrd.org | P | |
| Lyndsey Bloxom | Water Replenishment District | lbloxom@ wrd.org | A | |
| Cathie Santo Domingo | Los Angeles Recreation & Parks | cathie.santodomingo@lacity.org | P | |
| Darryl Ford | Los Angeles Recreation & Parks | Darryl.Ford@lacity.org | A | |
| Kristen Ruffell | Sanitation Districts | kruffell@lacsds.org | P | |
| Mike Sullivan | Sanitation Districts | msullivan@lacsds.org | A | |
| E.J. Caldwell | West Basin | edwardc@westbasin.org | P | |
| Alex Heide | West Basin | alexanderh@westbasin.org | A | |
| Alison Suffet-Diaz | Environmental Charter School | alison@ecsonline.org | P | |
| Craig Cadwallader | Surfrider Foundation South Bay Chapter | craigc@surfrider-southbay.org | P | |
| Mary Simun | Surfrider Foundation South Bay Chapter | entamoebatrex@hotmail.com | A | |
| Hany Fangary | Fangary Law Group | hany@fangarylawa.com | P | |
| Justin Massey | | | A | |

South Santa Monica Bay
 Watershed Area Steering Committee Meeting
 COMMITTEE MEMBER AND ALTERNATE SIGN-IN



| Member Name | Municipality/ Organization | Email Address | | Signature |
|-----------------------------|---|---------------------------------|---|-----------------------|
| Wendy Butts | Los Angeles Conservation Corps | wbutts@lacorps.org | P | <i>Wendy A. Butts</i> |
| Bo Savage | Los Angeles Conservation Corps | bsavage@lacorps.org | A | |
| Guang Yu Wang | Santa Monica Bay Restoration Commission | Guangyu.wang@waterboards.ca.gov | P | <i>[Signature]</i> |
| Julio Gonzalez | Carson | JGonzalez@carson.ca.us | P | ✓ <i>[Signature]</i> |
| Maria E. Williams-Slaughter | Carson | MSlaughter@Carson.ca.us | A | <i>[Signature]</i> |
| Susie Santilena | Los Angeles | susie.santilena@lacity.org | P | ✓ <i>[Signature]</i> |
| Alfredo Magallanes | Los Angeles - Sanitation | alfredo.magallanes@lacity.org | A | |
| Paul Alva | Los Angeles County | PALVA@dpw.lacounty.gov | P | |
| Mark Lombos | Los Angeles County | MLOMBOS@dpw.lacounty.gov | A | |
| TJ Moon | Los Angeles County | TMOON@dpw.lacounty.gov | A | <i>[Signature]</i> |
| John Dettle | Torrance | jdettle@torranceca.gov | P | |
| Wilson Mendoza | Torrance | Wmendoza@TorranceCA.Gov | A | ✓ <i>[Signature]</i> |
| Stephanie Katsouleas | EWMP: Beach Cities (Manhattan Beach) | skatsouleas@citymb.info | P | <i>[Signature]</i> |
| Shawn Igoe | EWMP: Beach Cities (Manhattan Beach) | sigoe@citymb.info | A | <i>[Signature]</i> |
| Heecheol Kwon | EWMP: Dominguez (Hawthorne) | HKwon@cityofhawthorne.org | P | <i>[Signature]</i> |

South Santa Monica Bay
 Watershed Area Steering Committee Meeting
 COMMITTEE MEMBER AND ALTERNATE SIGN-IN



| Member Name | Municipality/ Organization | Email Address | | Signature |
|------------------|---|------------------------------|---|---------------------|
| Akbar Farokhi | EWMP: Dominguez (Hawthorne) | AFarokhi@cityofhawthorne.org | A | |
| Lauren Amimoto | EWMP: Dominguez (Inglewood) | lamimoto@cityofinglewood.org | A | |
| Barmeshwar Rai | EWMP: Dominguez (Inglewood) | brai@cityofinglewood.org | A | |
| Ken Rukavina | EWMP: Peninsula (Palos Verdes Estates) | krukavina@pvestates.org | P | <i>Ken Rukavina</i> |
| Elias K. Sassoon | EWMP: Peninsula (Rancho Palos Verdes) | esassoon@rpvca.gov | A | |
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South Santa Monica Bay
 Watershed Area Steering Committee Meeting
 PUBLIC SIGN-IN



| First Name | Last Name | Municipality/Organization | Email Address |
|--------------------------------|------------|---------------------------|---|
| John John | Hunter | JLHA / RPV | JHUNTER@JLHA.NET |
| Richard Watson | watson | RWA/ | rwatson@rwaplanning.com |
| Jacqueline | Mak | JLHA / RPV | jmak@jlha.net |
| Jud Warren | Warren | Weston Solutions | robert.warren@westonsolutions.com |
| Jacqueline McMillen | McMillen | Alta/NYS | jacqueline.mcmillen@altaenvironmental.com |
| TARANEH | NIEFHAR | CITY OF L | Taraneh.NieFahre@city.org |
| Susan | Robinson | McGowan | Susan@mcgowan.consulting |
| Jon | Arlson | Stanec | jonathan.arlson@stanec.com |
| Jim | BURTON | ECOKAI | JBURTON@ECOKAI.COM |
| Cameron McCullough | | JLHA | cmccullough@jlha.net |
| Carmen | Andrade | LASAN | |
| Alfredo | Magallanes | CITY OF LA - LASAN | shahram.kharaghani@city.org |
| Shahram | Kharaghani | | Alfredo.Magallanes@city.org |
| Nancy Shrodes | Shrodes | Heal the Bay | nshrodes@healthebay.org |
| Mercedes Passanisi | Passanisi | LA County | mpassanisi@laco.org |

*Signing or completing this form is voluntary for members of the public

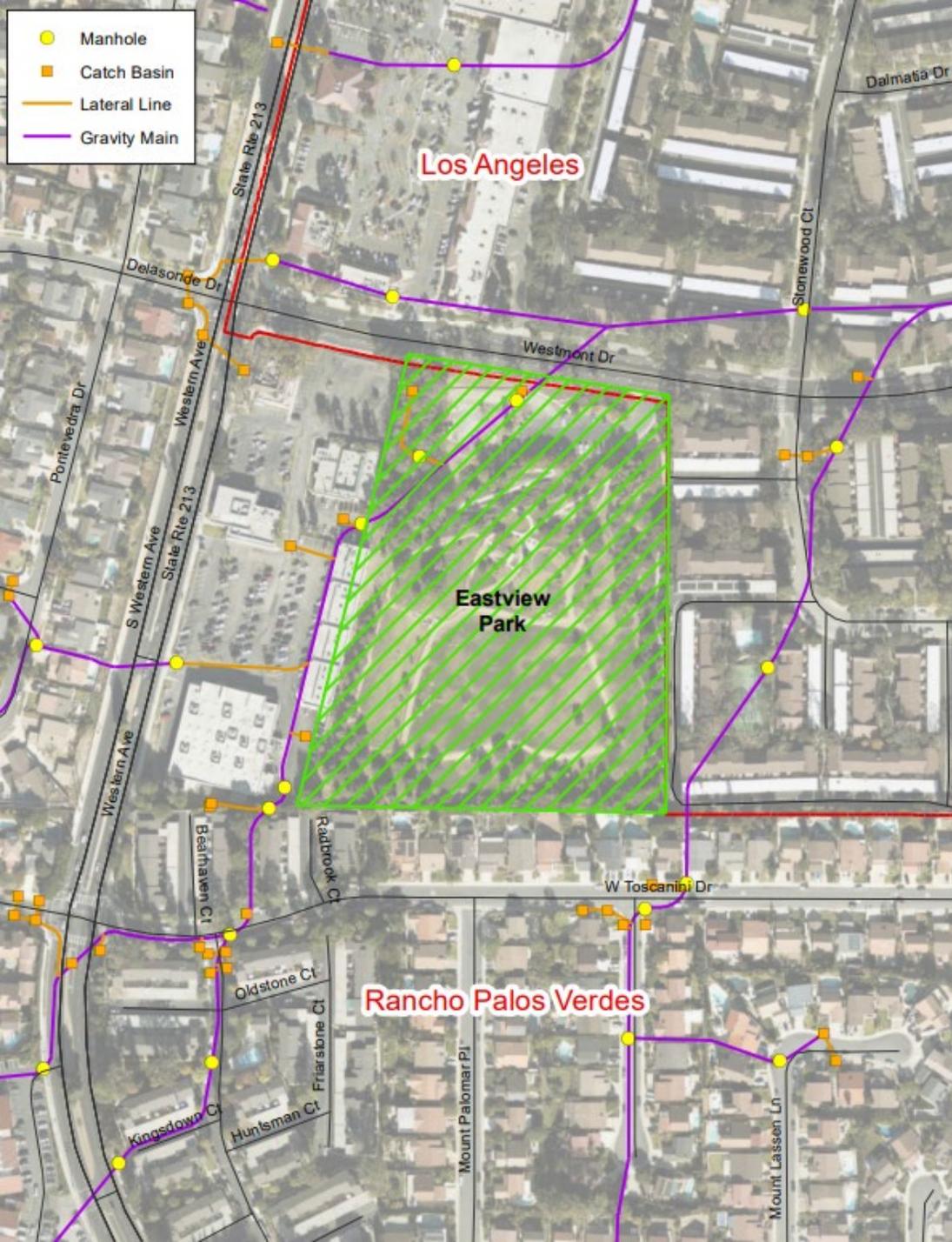
Eastview Park

(Total Funding Requested: \$300,000)

City of Rancho Palos Verdes | Presented by John Hunter and Jacqueline Mak

South Santa Monica Bay Watershed Area Steering Committee

February 19, 2020



Overview

- Eastview Park is a large community park space located in the City of Rancho Palos Verdes; the park is in a flat area of the City, with less concern for geotechnical hazards than most of the Peninsula
- A large storm drain main runs adjacent to and through the northwest corner of the park.
- Draining approximately **350 acres**
- The site has potential for:
 - Capture and treatment facility



ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP)

Submitted By:

**Palos Verdes Peninsula
Watershed Management Group**

Revised: April 05, 2019

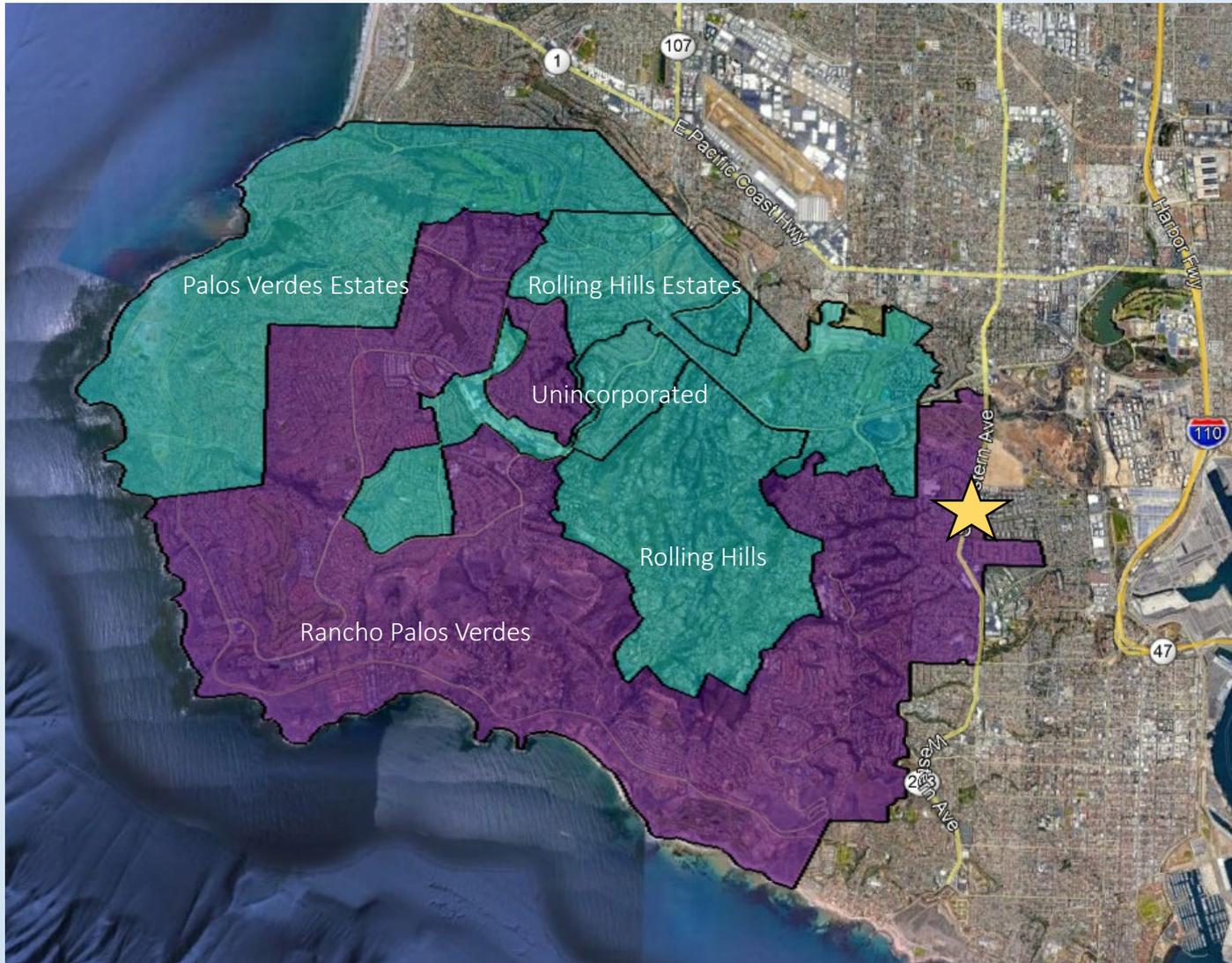
Palos Verdes Peninsula EWMP

- Approved on April 19, 2016
- Consists of the following permittees: Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Los Angeles County, Los Angeles County Flood Control District
- Outlines the path to achieving compliance with the MS4 Permit

Geotechnical Constraints

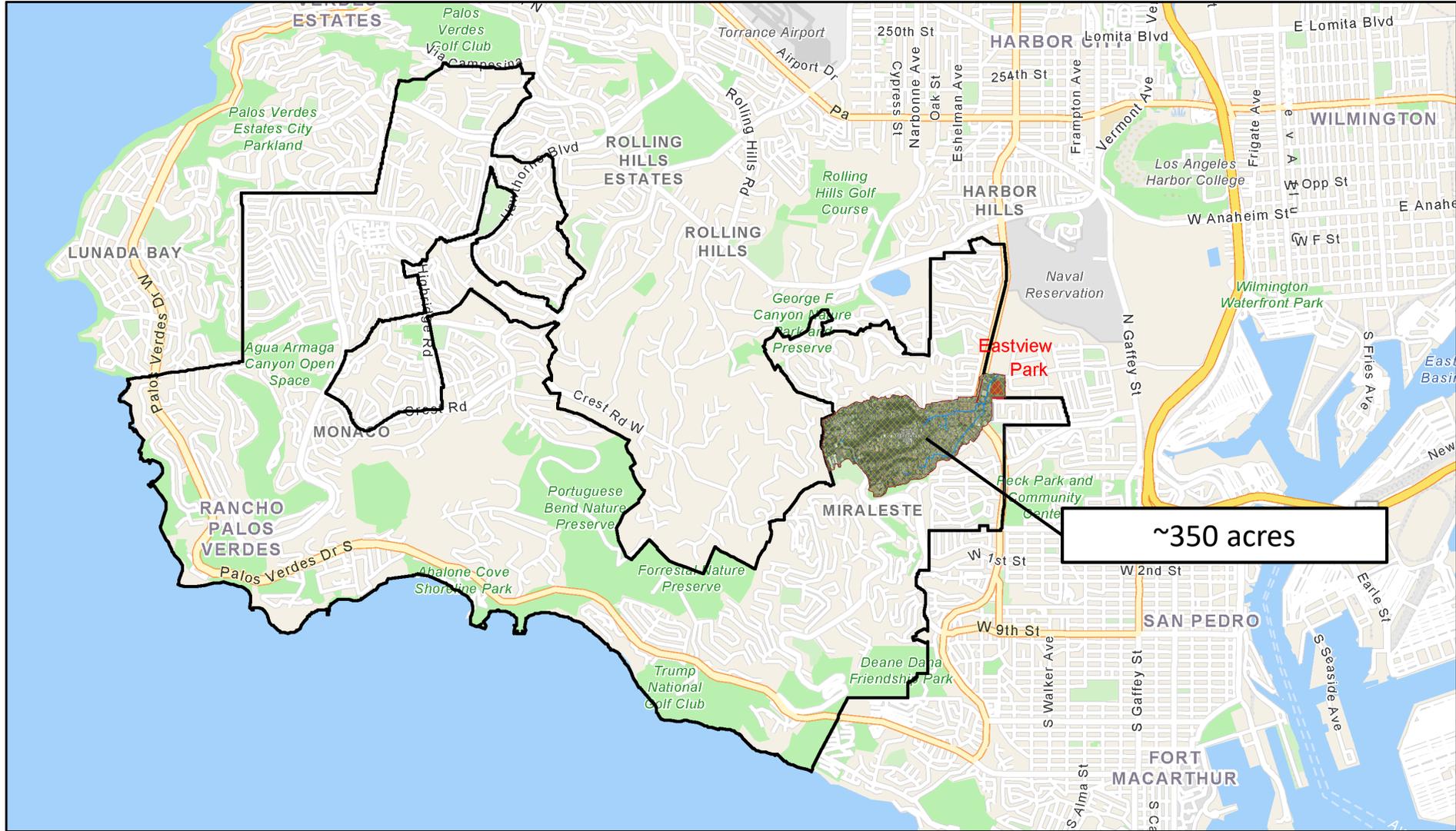
- The PVP WMG has many geologic and geotechnical challenges for regional infiltration-based stormwater control measures in nearly all locations:
 - Landslide areas
 - Liquefaction zones
 - Access to storm drains
 - Landfill zones





Eastview Park

- Eastview Park was identified in the PVP EWMP as a uniquely ideal location for a regional stormwater capture and treatment project
- According to the modeling conducted for the PVP EWMP, the construction of a regional project at Eastview Park would ensure compliance with Greater Los Angeles Harbor sub-watershed target loads

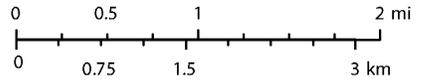


 Rancho Palos Verdes City Boundary

 Tributary

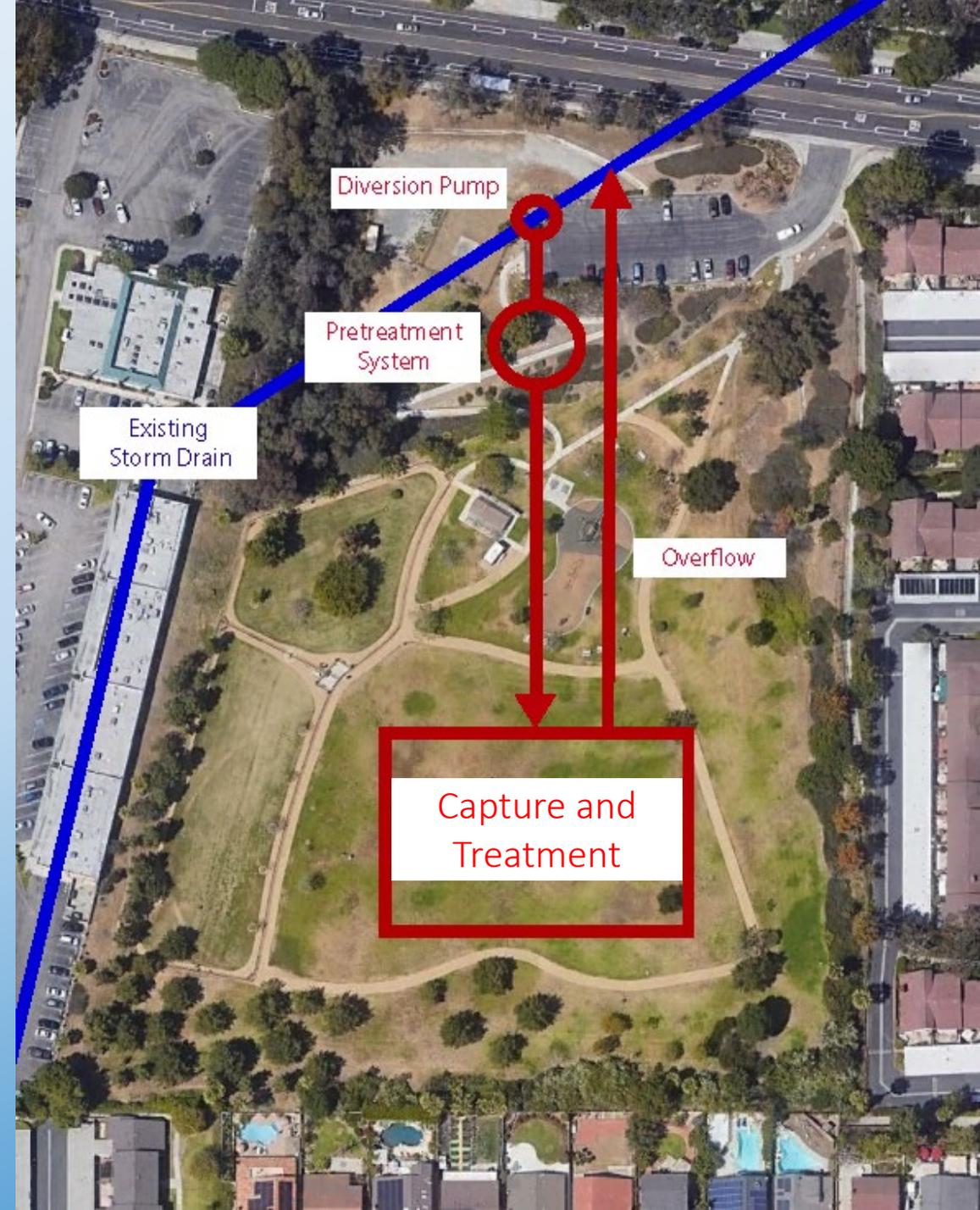
 Eastview Park

 Eastview Park Drainage Area



Working Concept

- Treatment at this location could consist of a capture and treatment facility, capable of capturing the 1-inch design storm, providing an array of water quality/ supply and community benefits



Property

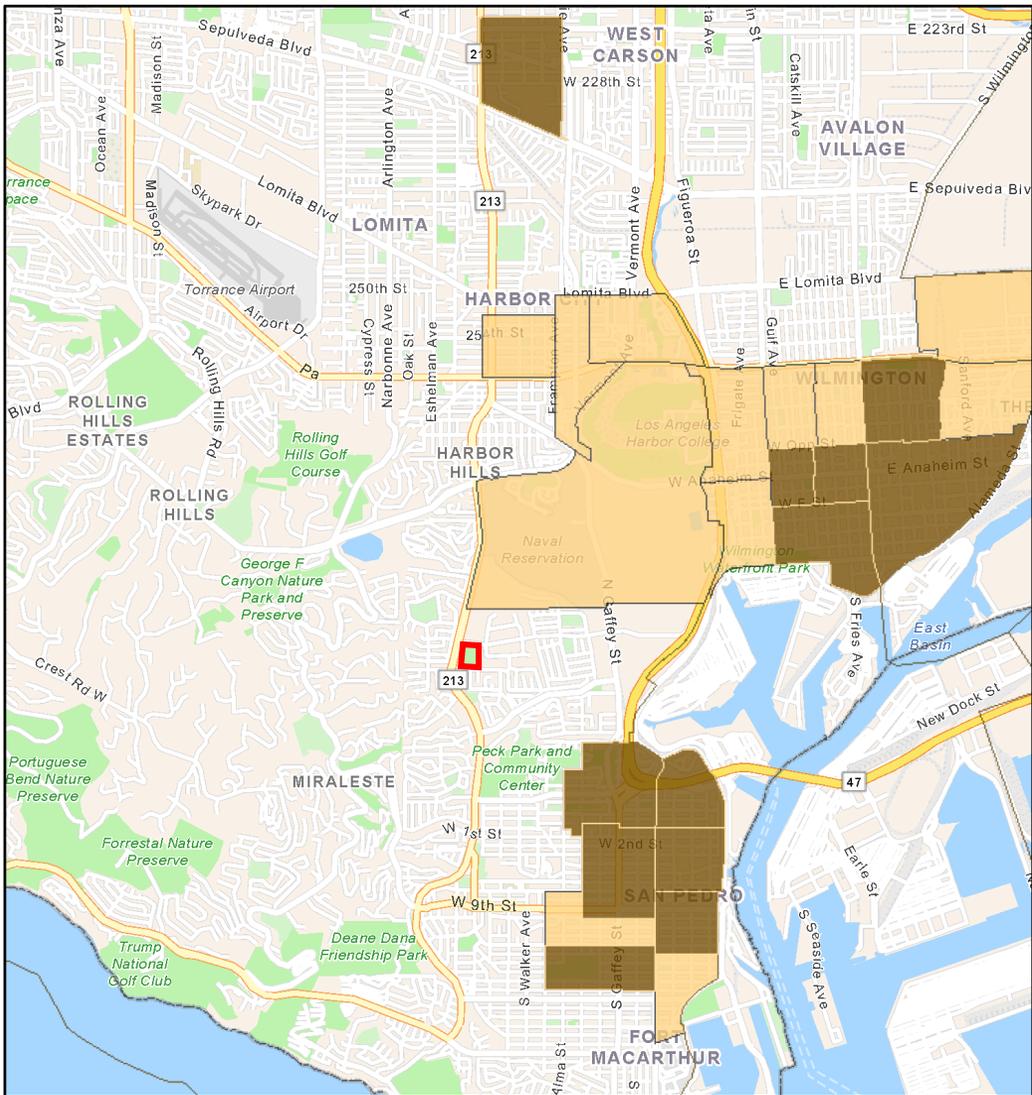
- LA County Sanitation District owns the Eastview Park property
 - 30-year lease to RPV
- Two LA County Sanitary District outfall tunnels run across Eastview Park
- A new sanitary outfall tunnel is being developed east of Eastview Park
- The existing outfall tunnels will be rehabilitated and serve as backup



Technical Resources Funding Requested

- A feasibility study is needed to further investigate project feasibility, cost-effectiveness, and BMP design details; **\$300,000** is being requested

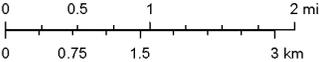
Once a technical resources study determines that the project is feasible, a regional project application will be submitted to the WASC at a later date



DAC

Disadvantaged Communities - Tract 2016

- Data Not Available
- Severely Disadvantaged Communities (MHI < \$38,270)
- Disadvantaged Communities (\$38,270 > MHI < \$51,026)



Eastview Park

City Council Presentation

- RPV City Council will be briefed regarding the Eastview Park Technical Resources Funding Request on March 17th, 2020

Questions?

Coordinated Safe, Clean Watershed Plans: South Santa Monica Bay

February 19, 2020



Safe Clean Watershed Plans



Preamble

- Let's continue our water quality partnerships built through E/WMPs, TMDLs and MS4 Permit efforts
- Together, we can solve our water quality challenges while improving our communities
- If we invest in strategic planning then:
 - More effective and beneficial projects
 - Improved, regional collaboration
 - Ensure water quality improvement remains front-and-center

Overview

- Why is a Safe Clean Watershed Plan being proposed?
- What will be the major outcomes?
- How will the WASC and stakeholders be engaged?
- What are the major tasks and proposed schedule?
- What is the breakdown of requested funding?

Safe Clean Watershed Plans: Why?

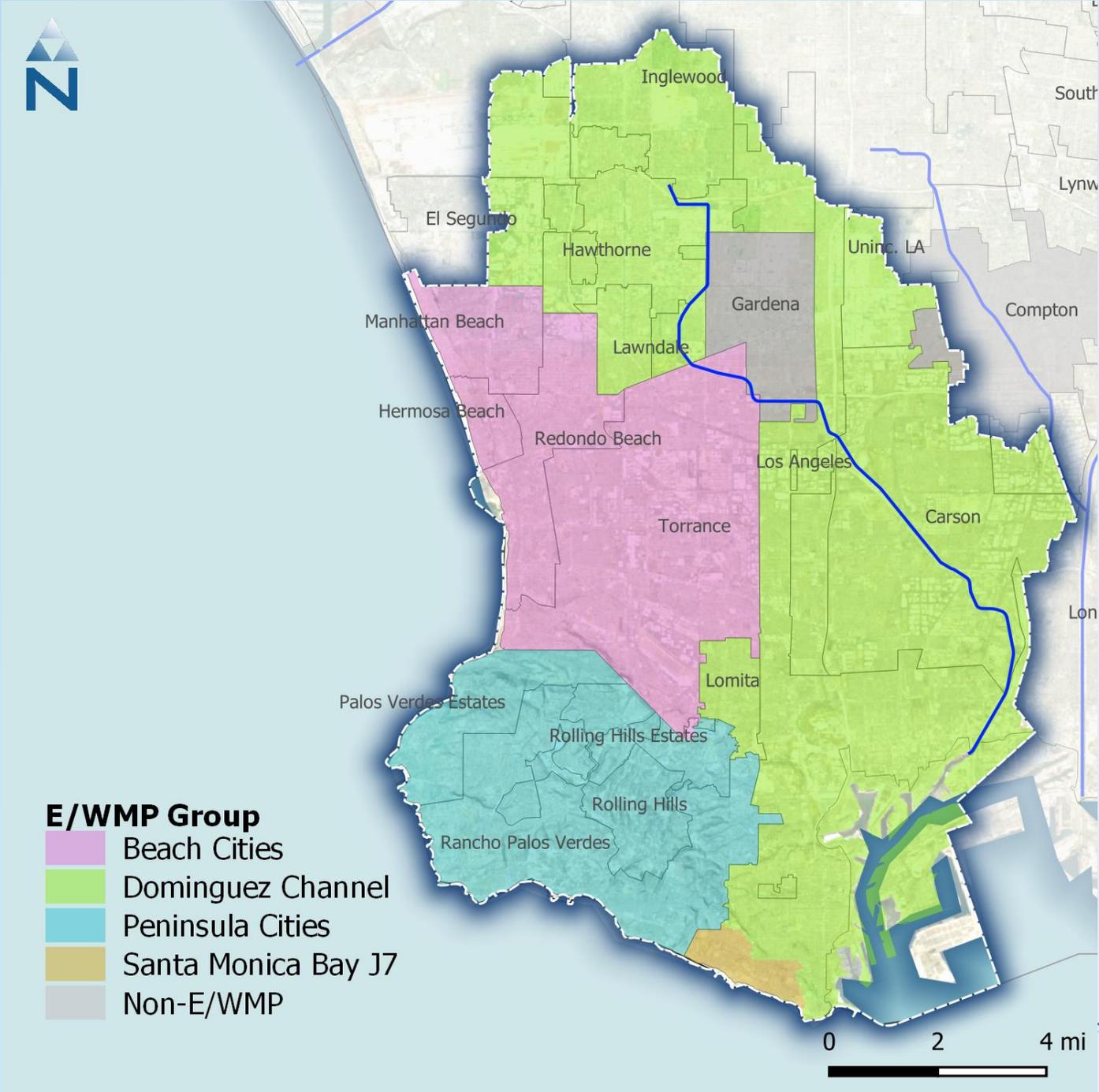
- Strategic planning would help us maximize the return on Measure W investments
- Collaboration among municipalities and community groups would lead to integrated and complimentary projects
- Using smart tools to develop project concepts would create a pool of cost-effective and highly-beneficial projects
- Incorporating EWMPs and water quality compliance requirements would promote integrated, collaborative decision making

Safe Clean Watershed Plans: Why?

| Santa Monica Bay TMDLs | |
|------------------------|------------|
| Bacteria | 2009/ 2021 |
| Debris | 2020 |
| DDTs & PCBs | 2012 |

| Dominguez/Other TMDLs | |
|-----------------------|-----------|
| Harbor Toxics | 2032 |
| Cabrillo Bacteria | 2010 |
| Machado Nutrients | Addressed |
| Machado Toxics | Addressed |

plus 303(d) listings!



Safe Clean Watershed Plans: Scope of Work



Safe Clean Watershed Plans: Engagement

- 1-on-1 workshops with each municipality and community group
- Public engagement throughout process
- Guidance by:
 - WASC
 - Watershed Coordinator
 - Working technical group
 - EWMP groups

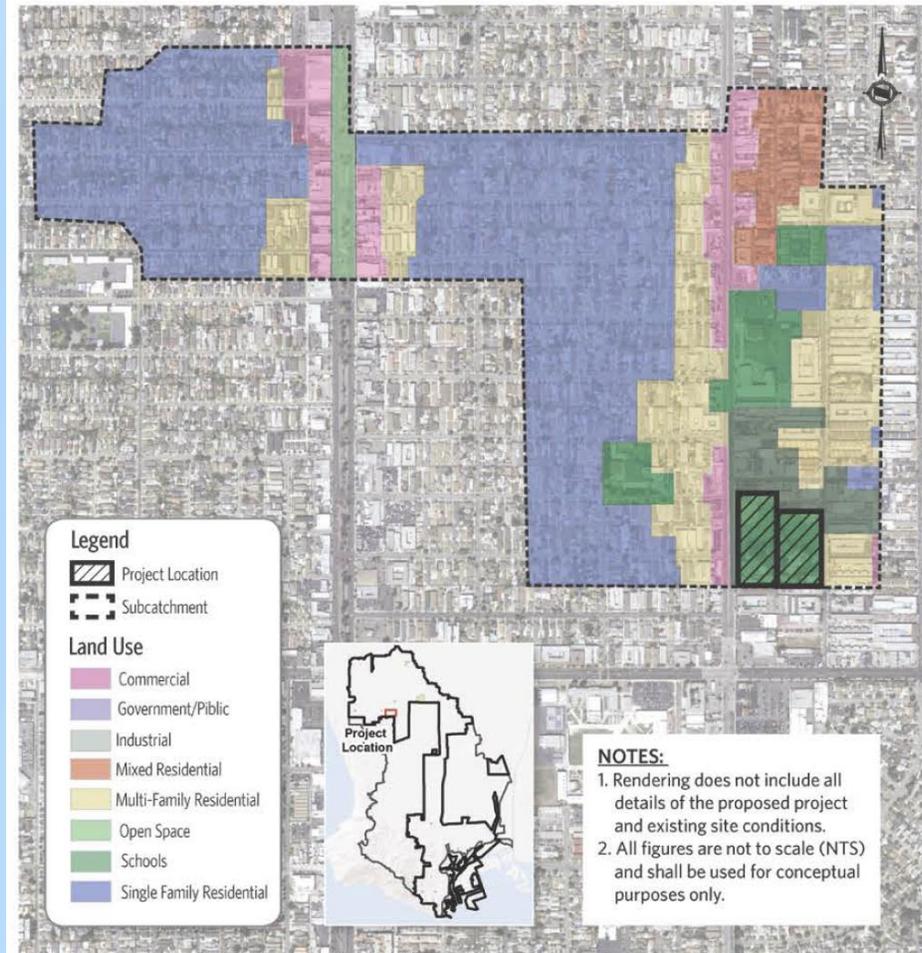
Safe Clean Watershed Plans: Outcomes

- A pool of 'smart' project concepts for each municipality and major community group, based on 1-on-1 workshops
- Living document that describes our vision for the South Santa Monica Bay watershed and forecasts the cumulative WQ benefits of projects
- Modeling to forecast the benefits of SCW funding as compared to TMDL requirements, which will also support EWMP RAA updates for the 3 EWMPs
- Fact sheet materials and website for public engagement

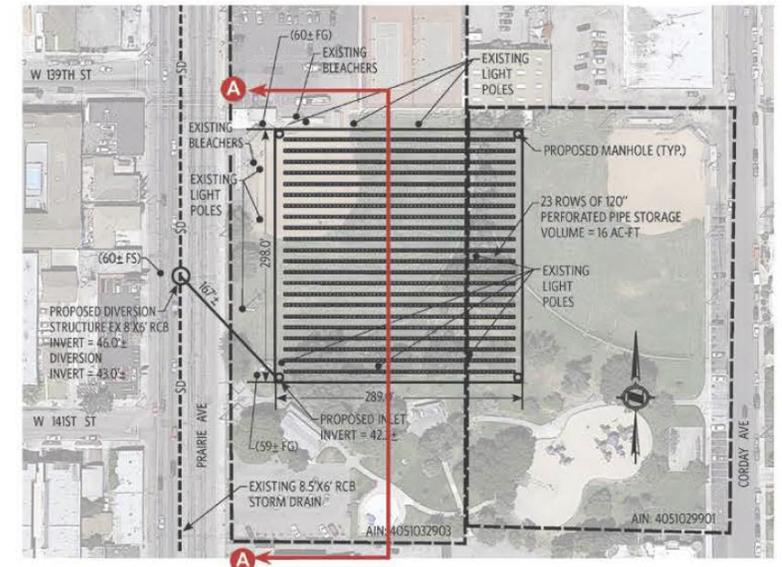
Smart Tools to Identify Project Locations



Rapid Concepts for each Municipality and Major Community Group

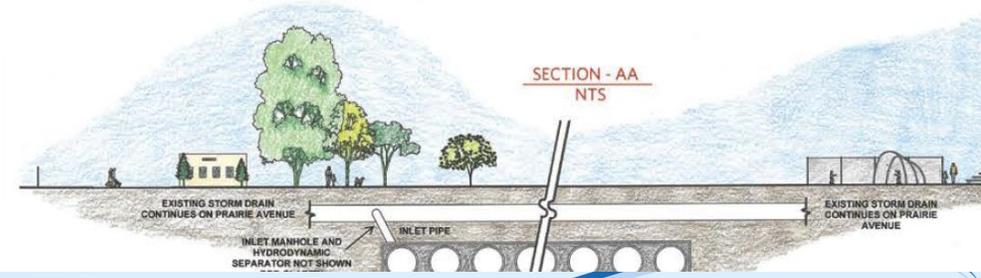


DOMINGUEZ CHANNEL WATERSHED EWMP
PRELIMINARY DESIGN CONCEPTS
Jim Thorpe Park Project Site



| Jim Thorpe Park | |
|---------------------------|---|
| Item | Detail |
| Ownership | City of Hawthorne |
| AIN | 4051-032-903; 4051-029-901; 4051-030-901 |
| Address | 14100 Prairie Ave., Hawthorne, CA 90250 |
| Infiltration Rate (in/hr) | 0.27 |
| Groundwater Basin | West Coast |
| Site Area (acre) | 8.65(41 + 3.53 + 1.02) |
| Drainage Area (acre) | 378 |
| Design Volume (ac-ft) | 16 |
| Latitude and Longitude | 33°54'16.09"N 118°20'34.20"W |
| Major Watershed/Tributary | Dominguez Channel |

| Jim Thorpe Park (cont'd) | |
|--|---------------------------------|
| Item | Detail |
| Existing Site Description | Park, Open Space |
| Soil Type | Montezuma Clay Adobe |
| Drainage Area Total Impervious (%) | 51 |
| Design Storm Event Rainfall Depth (in) | 0.95 |
| Proposed Retrofit Description | 23 Rows of 120" Perforated Pipe |
| BMP Footprint (Square Feet) | 86,122 |
| Media Depth (Feet) | 28 |
| Construction Cost (\$, millions) | 18.0 |
| Annual Maintenance Cost (\$, millions) | 0.23 |
| Design and Construction Time | 4.5 |
| Completion Year | 2026 |

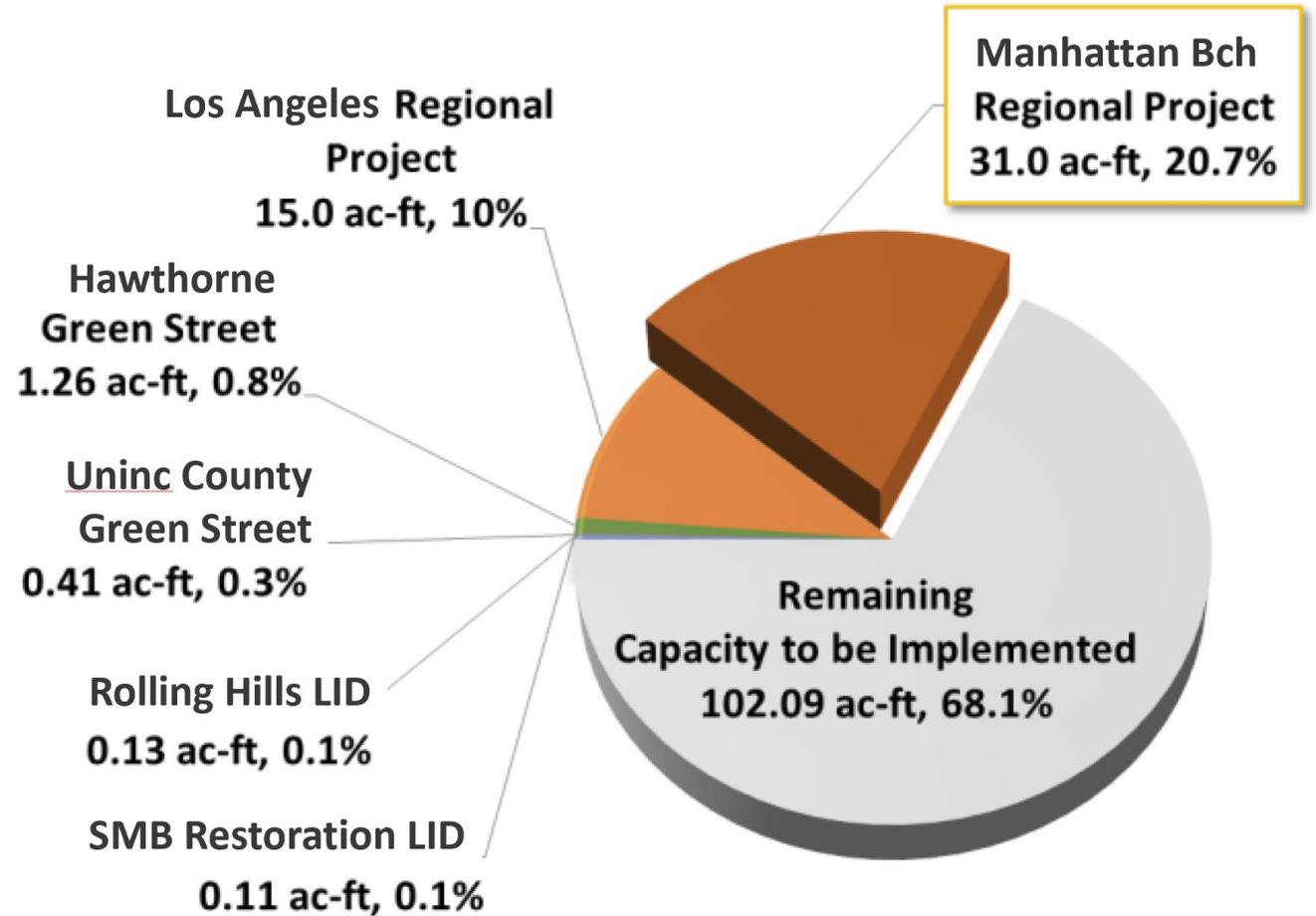


Benefits Forecast (hypothetical)

- Quantify cumulative benefits of SCW concepts
- Compare to MS4 and TMDL requirements
- This modeling will support RAA updates

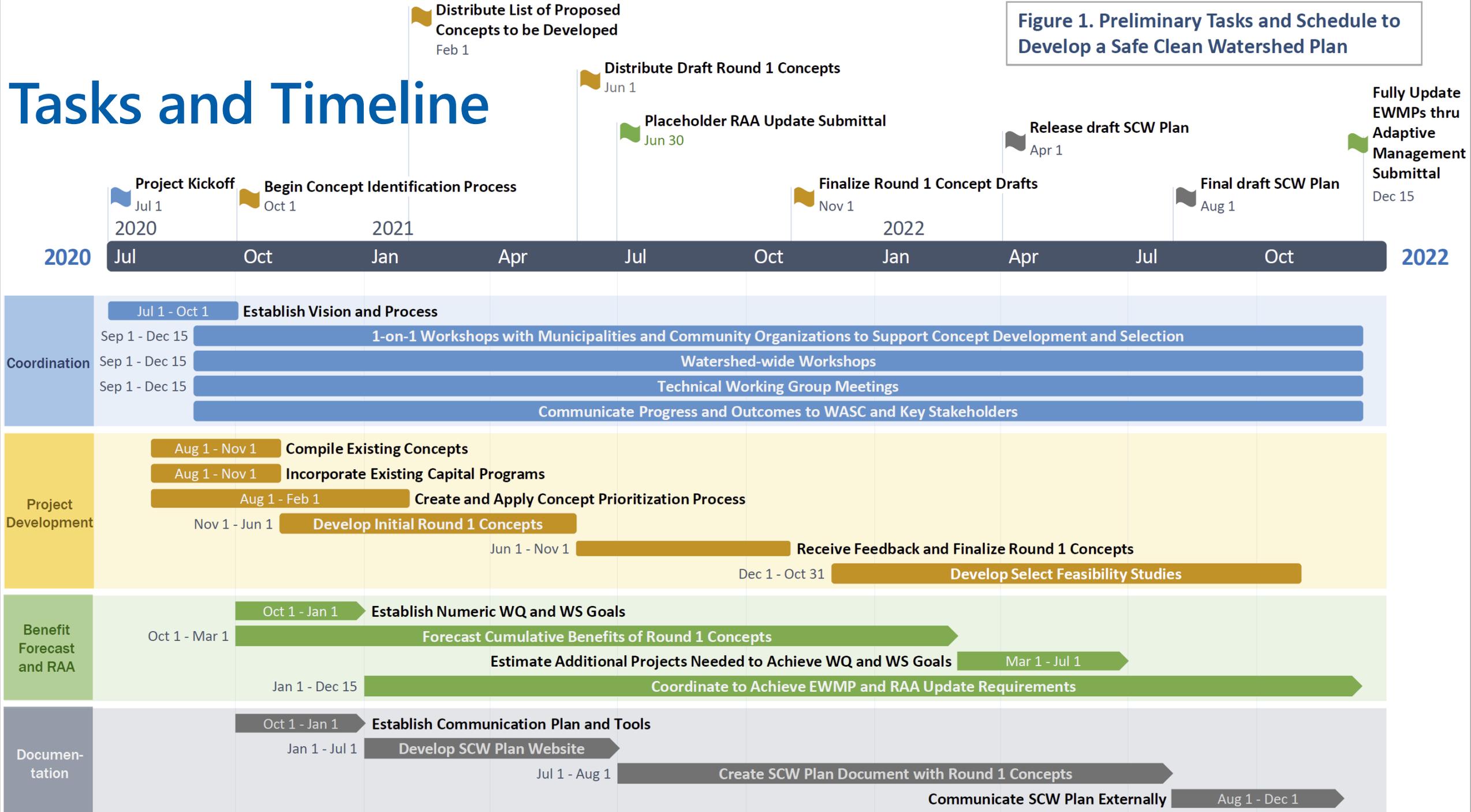
Forecast of Progress toward Water Quality Requirements

Project Capacity (ac-ft)



Tasks and Timeline

Figure 1. Preliminary Tasks and Schedule to Develop a Safe Clean Watershed Plan



Requested Funding

| Watershed Area | Amount |
|-------------------------------|--------------------|
| Central Santa Monica Bay | \$1,786,000 |
| South Santa Monica Bay | \$1,222,000 |
| Upper Los Angeles River | \$1,692,000 |

Breakdown by Task

| Task | Cost |
|------------------------|-----------|
| Coordination | \$100,000 |
| Project Development | \$500,000 |
| Benefits Forecast/RAAs | \$472,000 |
| Documentation | \$150,000 |

Breakdown by Year

| Year | Cost |
|-----------|-----------|
| 2020-2021 | \$445,000 |
| 2021-2022 | \$479,000 |
| 2022-2023 | \$298,000 |

Summary

- If we collaborate and integrate our efforts, we'll better protect the environment and public health
- If we use smart planning and prioritization tools, our projects will be more cost effective and beneficial
- If we incorporate EWMPs and TMDL requirements, we'll more effectively address our water quality compliance challenges
- If we better engage the public, we'll gain support and promote positive behavior changes



THANK YOU.

Questions and Discussion



Recalculation of Wet Weather Zinc Criterion

Scientific Study Proposal to
South Santa Monica Bay Steering Committee
February 19, 2020



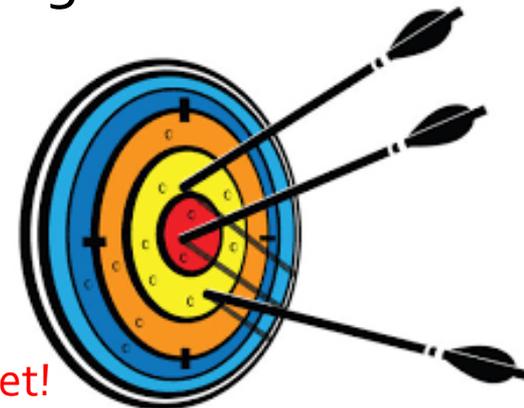
Jon Ball (Environmental Supervisor)
Watershed Protection Program
LA Sanitation & Environment
323-342-1557
jon.ball@lacity.org

Objective

- Re-evaluate & Update Zinc Criterion
 - USEPA's Recalculation Procedure
 - Wet Weather (CTR Acute Criterion)
 - Incorporate latest available data
 - Site-specific evaluation:
 - LA River, Ballona Creek, Dominguez Channel

Background

- Zinc is major challenge for EWMPs
 - \$6.5 Billion (Implementation Costs) for BC, DC, and ULAR
- Current Criterion is over 20 years old
 - Based on a nationwide toxicity dataset
 - Includes species that do not occur in our region
 - New data are available!



We must aim at the right target!

Overview of the Study

- Stakeholder engagement:
 - Environmental NGOs
 - Technical Advisory Committee (TAC)
 - LA Regional Board
- Task 1: SIP Analysis
- Task 2: Develop Study Workplan
- Task 3: Recalculation & Report
- Task 4: Implementation Report
- Task 5: Project Management

Expected Outcomes

- Previous Studies show Zinc criterion increase by factor of 1.2 to 2.2
- Potential Cost-savings for EWMP
 - \$300 Million to \$1.1 Billion
- Zinc Problem won't go away!
 - Sizing, cost, and locations of BMPs will be affected.

Cost & Schedule

- Total Cost: \$500,000
 - Central Santa Monica Bay: \$89,000 (17.8%)
 - South Santa Monica Bay: \$58,000 (11.6%)
 - Upper Los Angeles River: \$353,000 (70.6%)
- Timeline:
 - Start: July 2020
 - Completion: July 2023

Final Considerations

- Effective use of Public Funds
- Straightforward Approach
- Support attainment of Water Quality Requirements
- Maintain Protection for Aquatic Life

Overview of Proposed Scientific Study

Richard Watson, Richard Watson & Associates, Inc. (RWA)

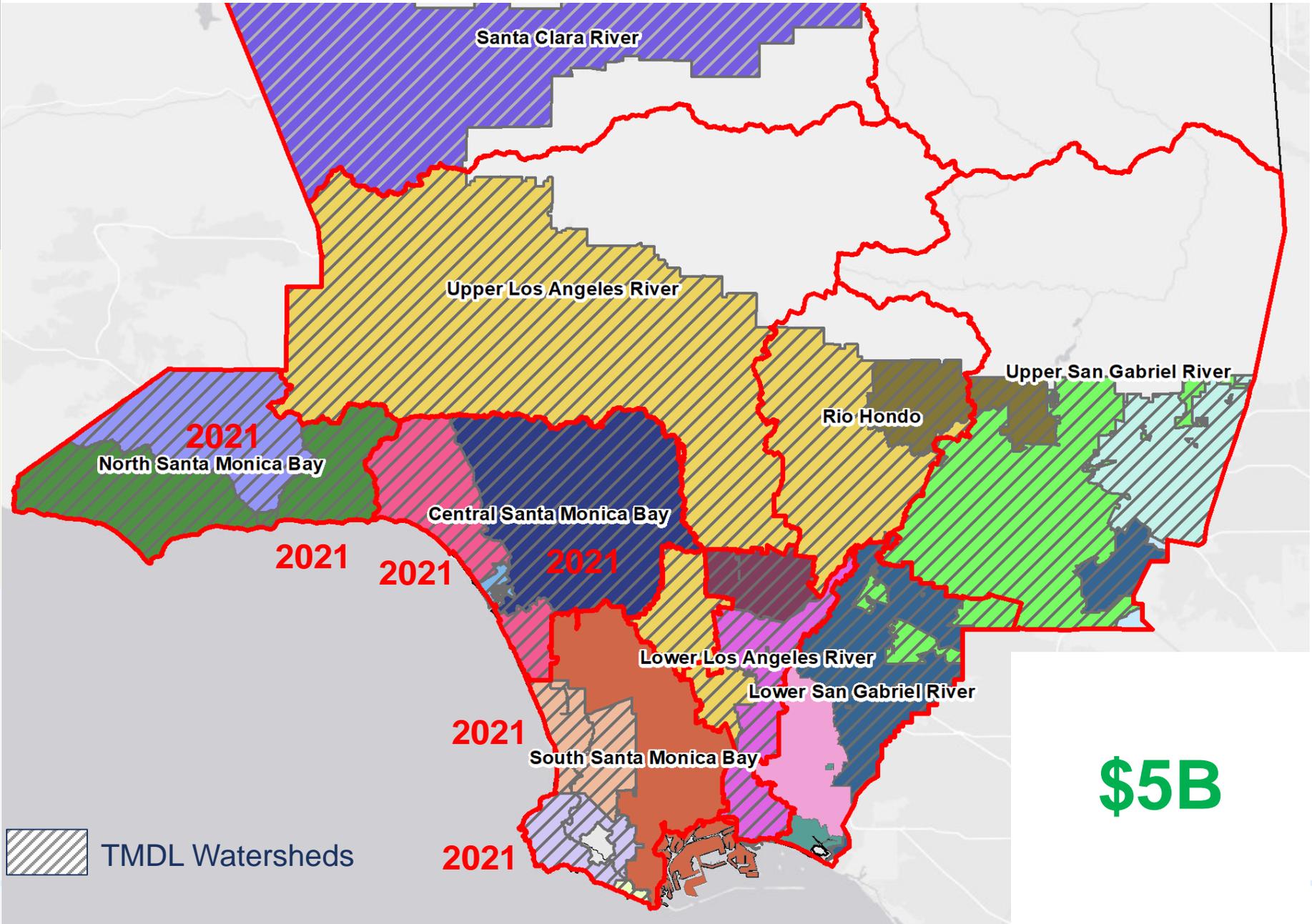
Presentation to South Santa Monica Bay WASC

19 February 2020

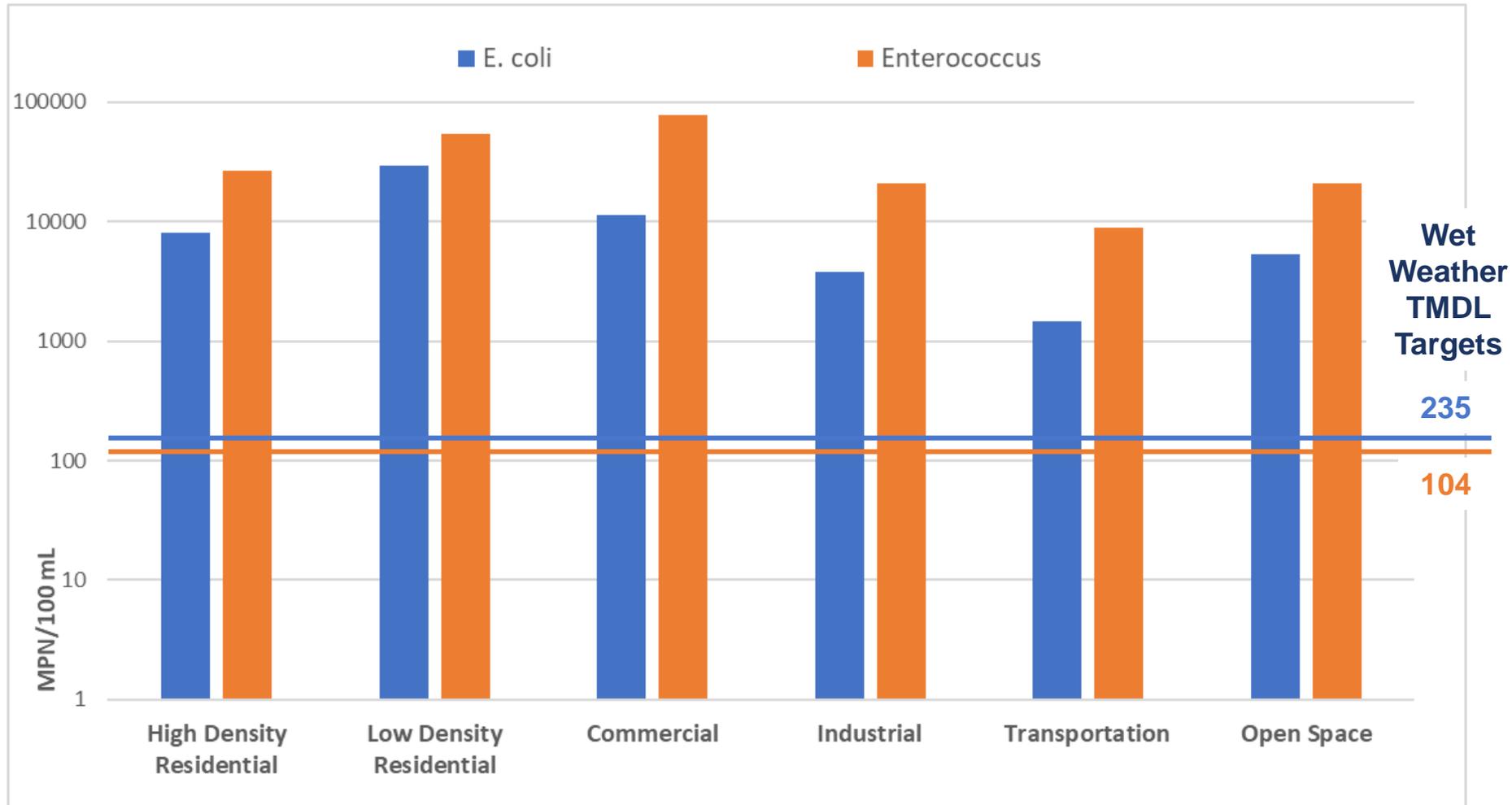
Overview

- Bacteria Challenges
- Nexus to Stormwater Capture
- Objectives of Study
- Scientific Study Approach
- Scientific Study Schedule and Cost Estimate
- Summary of Study

E/WMP Groups Addressing Bacteria



Wet Weather Average Concentrations: LA County Land Uses



Nexus to Stormwater Capture and Study Objectives

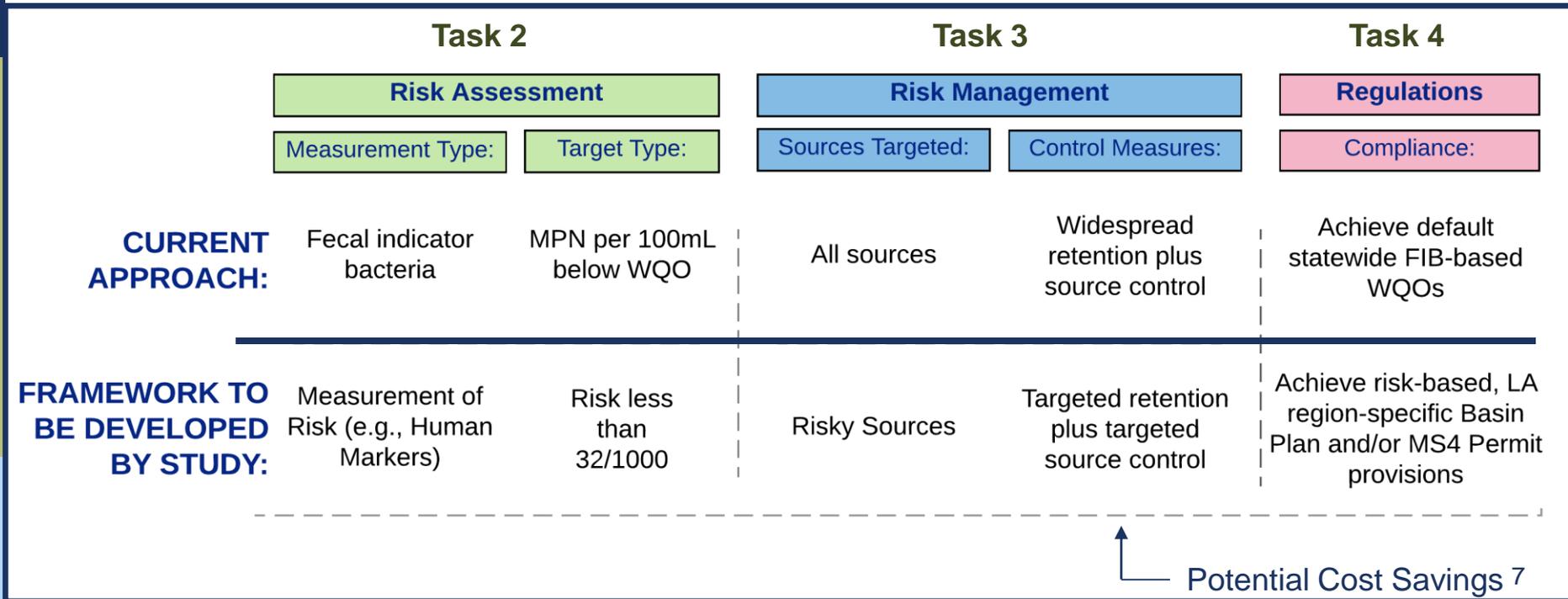
- Nexus to Stormwater Capture
 - Study will facilitate improved targeting of sources and water to capture
 - Study could reduce need to capture stormwater for bacteria compliance purposes
- Objective of Study
 - Leverage recent research
 - Produce strategies for incorporation into Program Plans
 - Support regulating agencies in making informed decisions

Scientific Study: Initial Steps

- Small Group Initiated Discussions
 - City and County of LA; LLC, LLAR, LSGR; and LWA
- Developed Special Study Approach
 - Apply state of the science to LA County specific issues
 - Built a scope for Measure W Regional Program funded study that each group can elect to participate (or not)
- Presented Approach E/WMP Groups
- Discussed with Regional Board staff

What will the study do?

Task 1 Stakeholder Process



Study Schedule

| Task | Year | | | | | | | | | |
|-------------------------------|------|--|---|--|---|--|---|--|---|--|
| | 1 | | 2 | | 3 | | 4 | | 5 | |
| Task 1 – Stakeholder Process | | | | | | | | | | |
| Task 2 – Risk Assessment | | | | | | | | | | |
| Task 3 – Risk Management | | | | | | | | | | |
| Task 4 – Regulatory Revisions | | | | | | | | | | |

Measure W Scientific Study Funding

- Funding is now available to address issue through studies
- Multi-year studies eligible for scientific study funding (5% of regional program funds)

| Watershed Area | Estimated Available Regional Funding for Special Studies | |
|--------------------------|--|---------------------|
| | Annual* | 5 Years* |
| Central Santa Monica Bay | \$890,000 | \$4,450,000 |
| Lower Los Angeles River | \$640,000 | \$3,200,000 |
| Lower San Gabriel River | \$835,000 | \$4,175,000 |
| North Santa Monica Bay | \$90,000 | \$450,000 |
| Rio Hondo | \$575,000 | \$2,875,000 |
| Santa Clara River | \$300,000 | \$1,500,000 |
| South Santa Monica Bay | \$920,000 | \$4,600,000 |
| Upper Los Angeles River | \$1,930,000 | \$9,650,000 |
| Upper San Gabriel River | \$945,000 | \$4,725,000 |
| Total | \$7,125,000 | \$35,625,000 |

* Assumes Measure W revenue of \$285,000,000/year.

Cost Estimate

| Tasks | | Cost Estimate |
|---------|----------------------|---------------|
| Task 1- | Stakeholder Process | \$490,000 |
| Task 2- | Risk Assessment | \$5,880,000 |
| Task 3- | Risk Management | \$2,940,000 |
| Task 4- | Regulatory Revisions | \$490,000 |
| Total | | \$9,800,000 |

Watershed Area Cost Allocations – Los Angeles County Bacteria Scientific Study

| Watershed Area | % Share of Budget for Study ² | Projected SCWP Scientific Study Funds | | Study Contribution by Watershed Area | Percent of SCWP Scientific Study Funds over 5-Years |
|--------------------------|--|---------------------------------------|---------------------|--------------------------------------|---|
| | | Annual | 5-Year | | |
| Central Santa Monica Bay | 12.5% | \$890,695 | \$4,453,125 | \$1,224,282 | 27.5% |
| Lower Los Angeles River | 8.98% | \$639,825 | \$3,199,125 | \$880,257 | |
| Lower San Gabriel River | 11.72% | \$835,050 | \$4,175,250 | \$1,148,559 | |
| North Santa Monica Bay | 1.26% | \$89,775 | \$448,875 | \$123,786 | |
| Rio Hondo | 8.07% | \$574,988 | \$2,874,938 | \$790,860 | |
| Santa Clara River | 4.21% | \$299,962 | \$1,499,812 | \$412,629 | |
| South Santa Monica Bay | 12.91% | \$919,838 | \$4,599,188 | \$1,265,369 | |
| Upper Los Angeles River | 27.09% | \$1,930,162 | \$9,650,812 | \$2,654,816 | |
| Upper San Gabriel River | 13.26% | \$944,775 | \$4,723,875 | \$1,299,442 | |
| Total | 100% | \$7,125,000 | \$35,625,000 | \$9,800,000 | |

1. Costs assume participation by all Watershed Areas, which increases efficiency of the study. Costs will need to be recalculated if not all Watershed Areas participate. Projected SCWP Scientific Study Funds are based on \$142.5 million in annual funds for the regional program (5% of which is available for scientific studies).
2. Percent of Total Budget is based on a proportional distribution of the costs based on the SCWP taxable impervious area.

Watershed Area Cost Allocations – Annual Cost Estimates to Implement Bacteria Study

| Watershed Area | Study Year | | | | | Total Budget | Projected Scientific Study | |
|--------------------------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|----------------------------|------------|
| | 1 | 2 | 3 | 4 | 5 | | Funds Available | % of Funds |
| Central Santa Monica Bay | \$330,750 | \$330,750 | \$330,750 | \$116,016 | \$116,016 | \$1,224,282 | \$4,453,125 | 27.5% |
| Lower Los Angeles River | \$237,611 | \$237,611 | \$237,611 | \$83,712 | \$83,712 | \$880,257 | \$3,199,125 | |
| Lower San Gabriel River | \$310,111 | \$310,111 | \$310,111 | \$109,113 | \$109,113 | \$1,148,559 | \$4,175,250 | |
| North Santa Monica Bay | \$33,340 | \$33,340 | \$33,340 | \$11,883 | \$11,883 | \$123,786 | \$448,875 | |
| Rio Hondo | \$213,532 | \$213,532 | \$213,532 | \$75,132 | \$75,132 | \$790,860 | \$2,874,938 | |
| Santa Clara River | \$111,397 | \$111,397 | \$111,397 | \$39,219 | \$39,219 | \$412,629 | \$1,499,812 | |
| South Santa Monica Bay | \$341,599 | \$341,599 | \$341,599 | \$120,286 | \$120,286 | \$1,265,369 | \$4,599,188 | |
| Upper Los Angeles River | \$716,800 | \$716,800 | \$716,800 | \$252,208 | \$252,208 | \$2,654,816 | \$9,650,812 | |
| Upper San Gabriel River | \$350,860 | \$350,860 | \$350,860 | \$123,431 | \$123,431 | \$1,299,442 | \$4,723,875 | |
| Total | \$2,646,000 | \$2,646,000 | \$2,646,000 | \$931,000 | \$931,000 | \$9,800,000 | \$35,625,000 | |

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2. Percent of Total Budget is based on a proportional distribution of the costs based on the SCWP taxable impervious area.

Summary of Study

- Will use latest available technologies to measure water-borne pathogens across watersheds.
- Will help identify key sources of human health risk, develop cost-effective protective strategies, and support needed regulatory shifts in support of this approach.
 - To make this successful, can't just be technical
 - Best way to focus on risk in the region
 - The time is now.

Questions and Thank You

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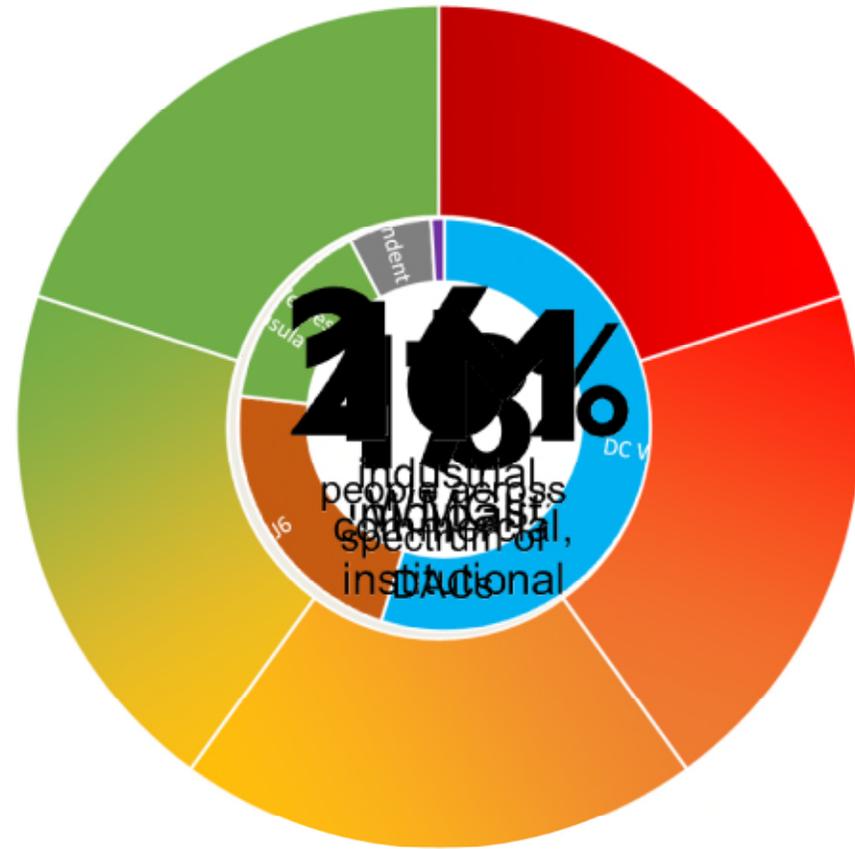
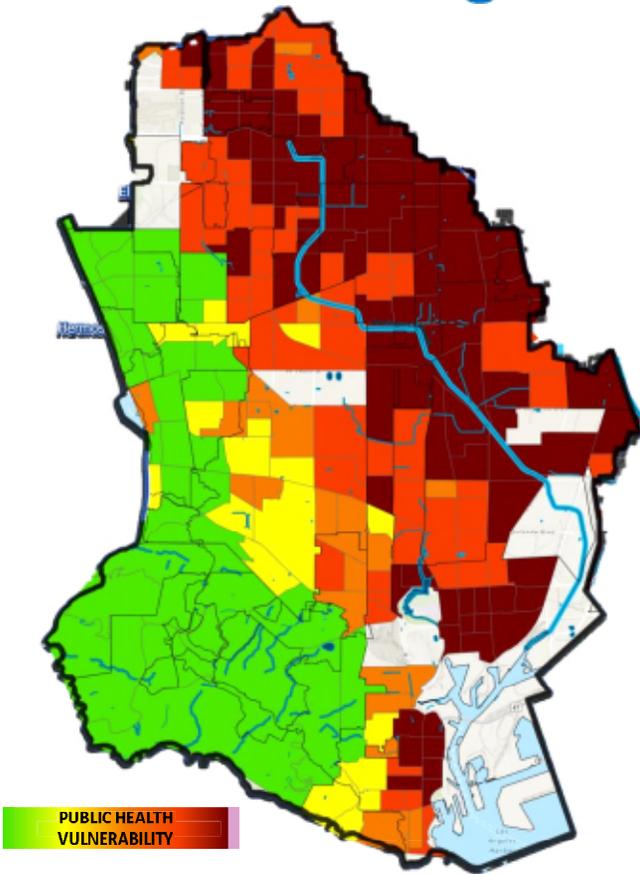
Watershed Innovation Platform (WIP)

A framework for advancing watershed science, finding impactful projects, and incentivizing inter-permit collaboration



A SAFE, CLEAN WATER REGIONAL SCIENTIFIC STUDY PROPOSAL | 19 FEB 2020 | SSMB WASC

SSMB: There is a Lot Going On



**HOW
DOES IT
WORK?**



**HAS IT
BEEN
DONE?**

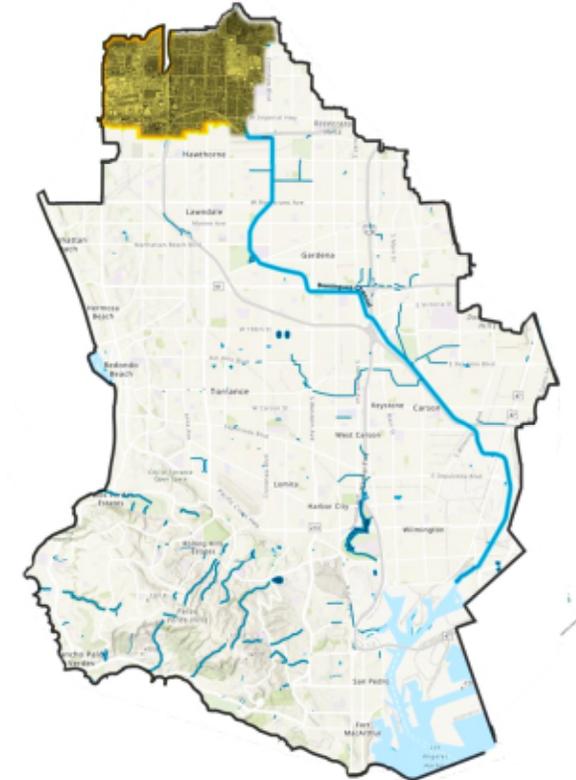


I. Fine Tune the Watershed Science

Local Proof:

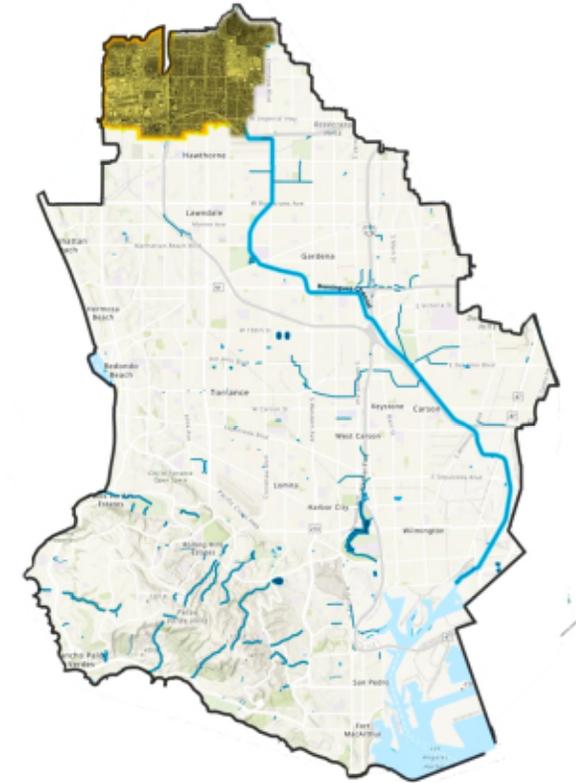
-  DC Group funded proof-of-concept study for 10 sq.mi.
-  Demonstrated that good science can improve program efficiency by 26%

-  **Regional Validation:** RH/SGR reWMP used new science to maximize multiple benefits while reducing implementation costs by 90%





2. Find Full-Spectrum of High-Impact, Multi-Benefit Projects

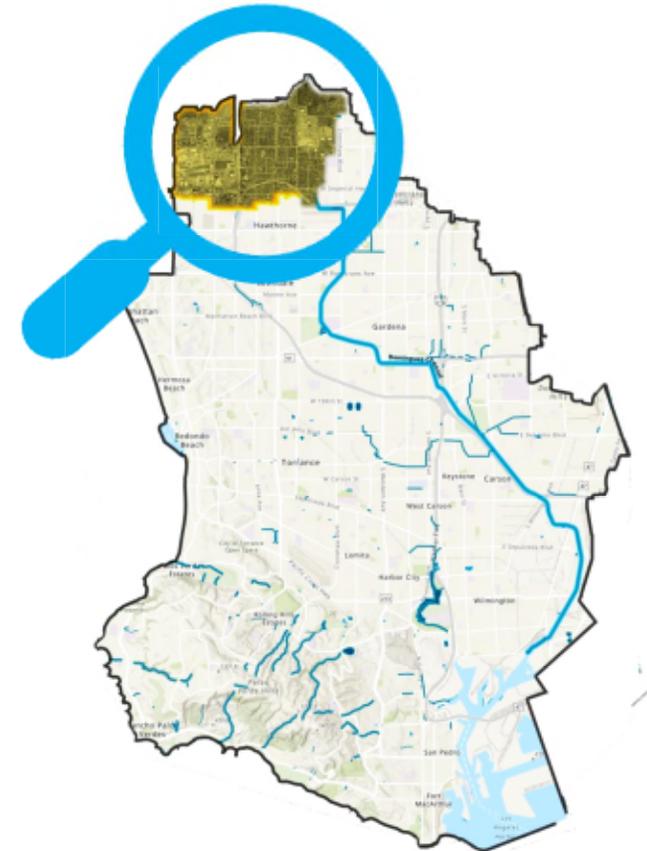




2. Find Full-Spectrum of High-Impact, Multi-Benefit Projects

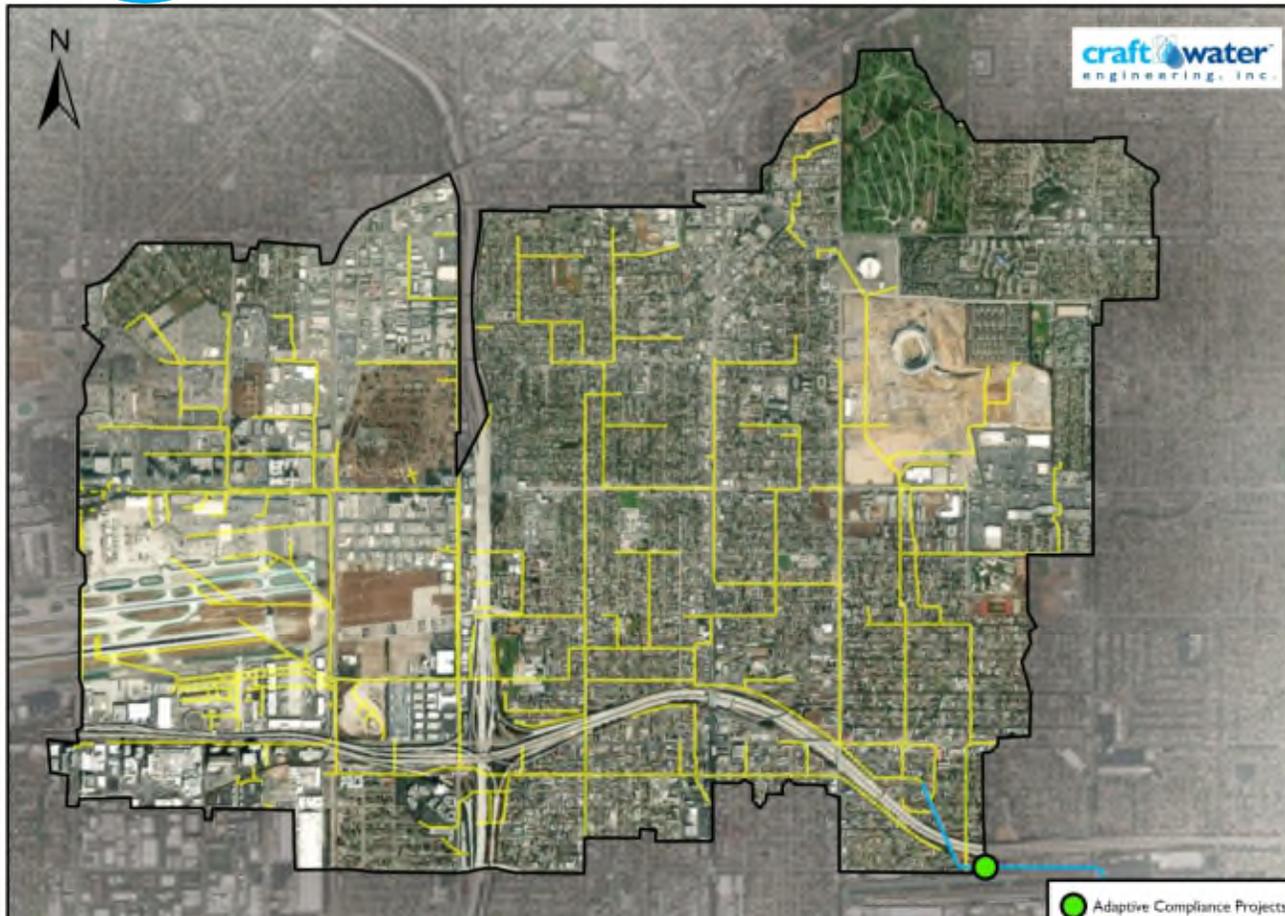


Local Proof: DC Group invested in a method to find previously hidden projects



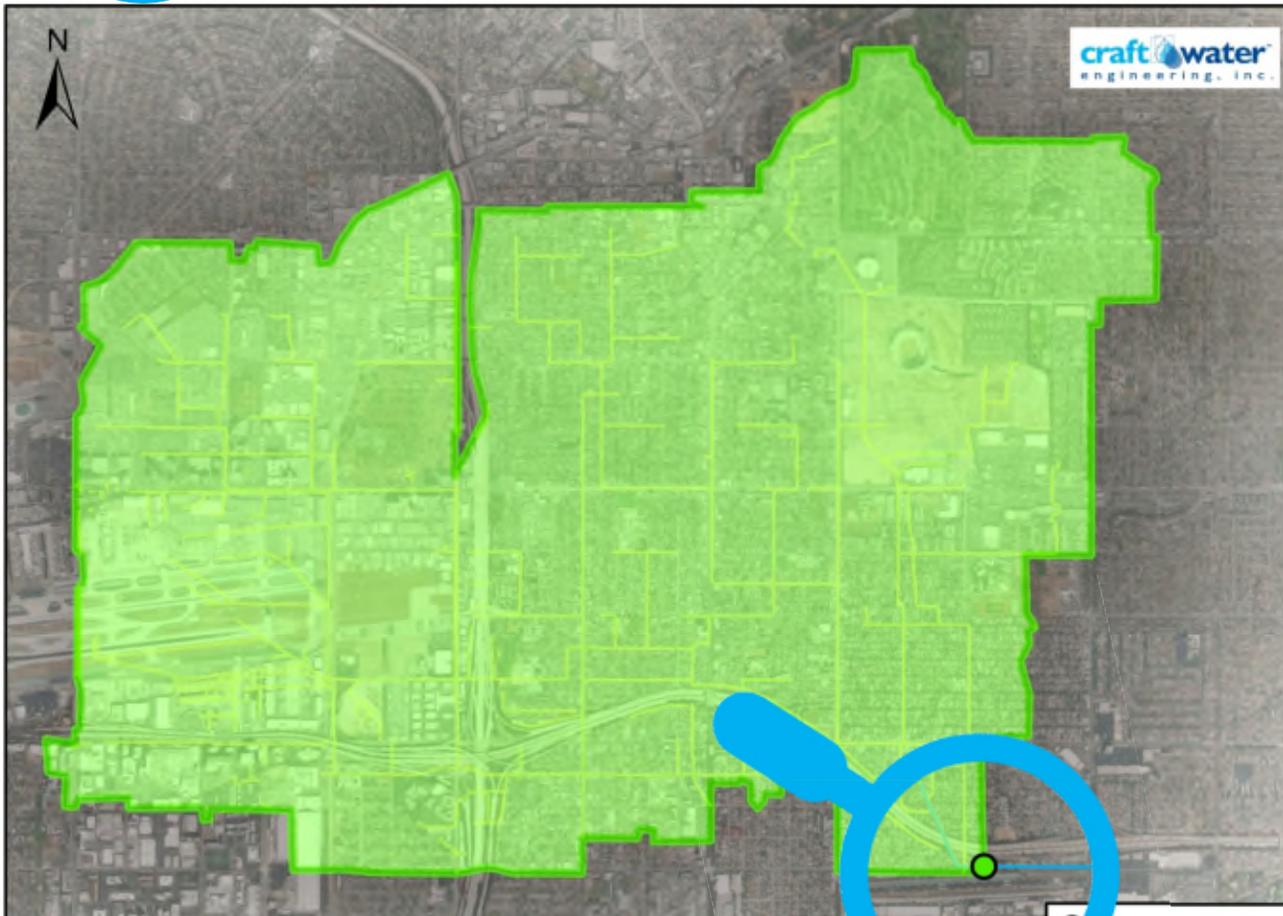


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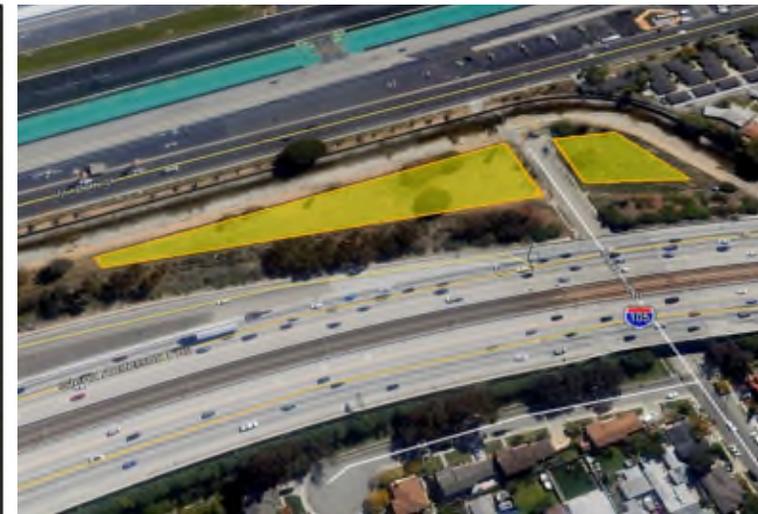
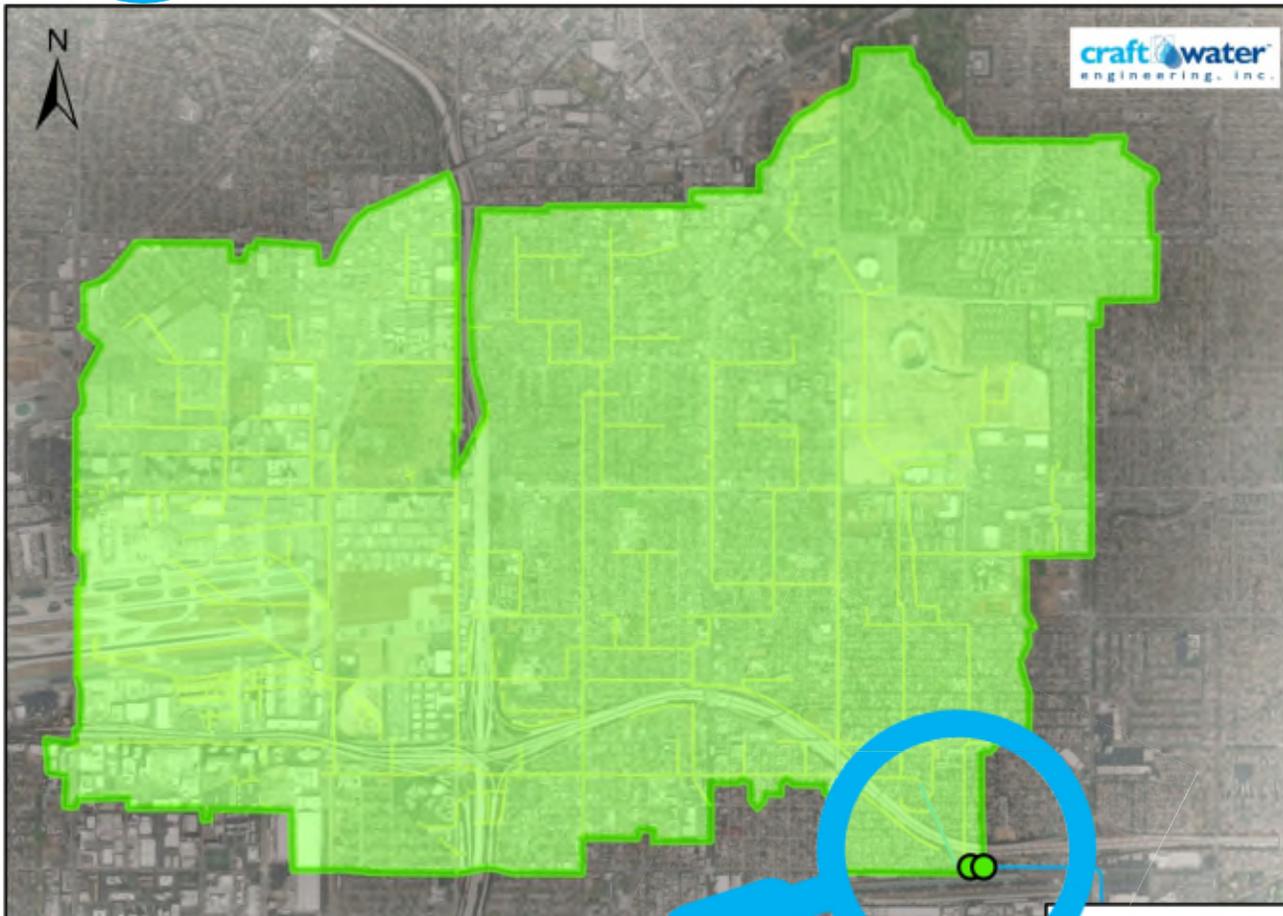


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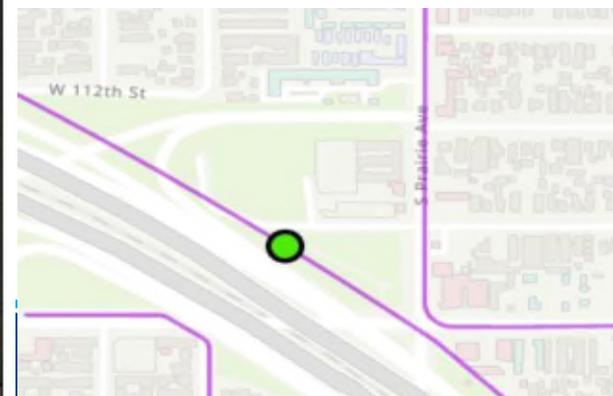
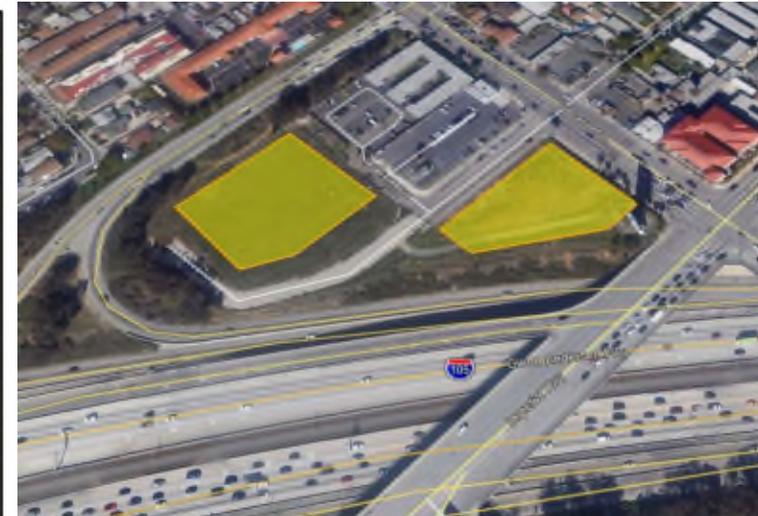
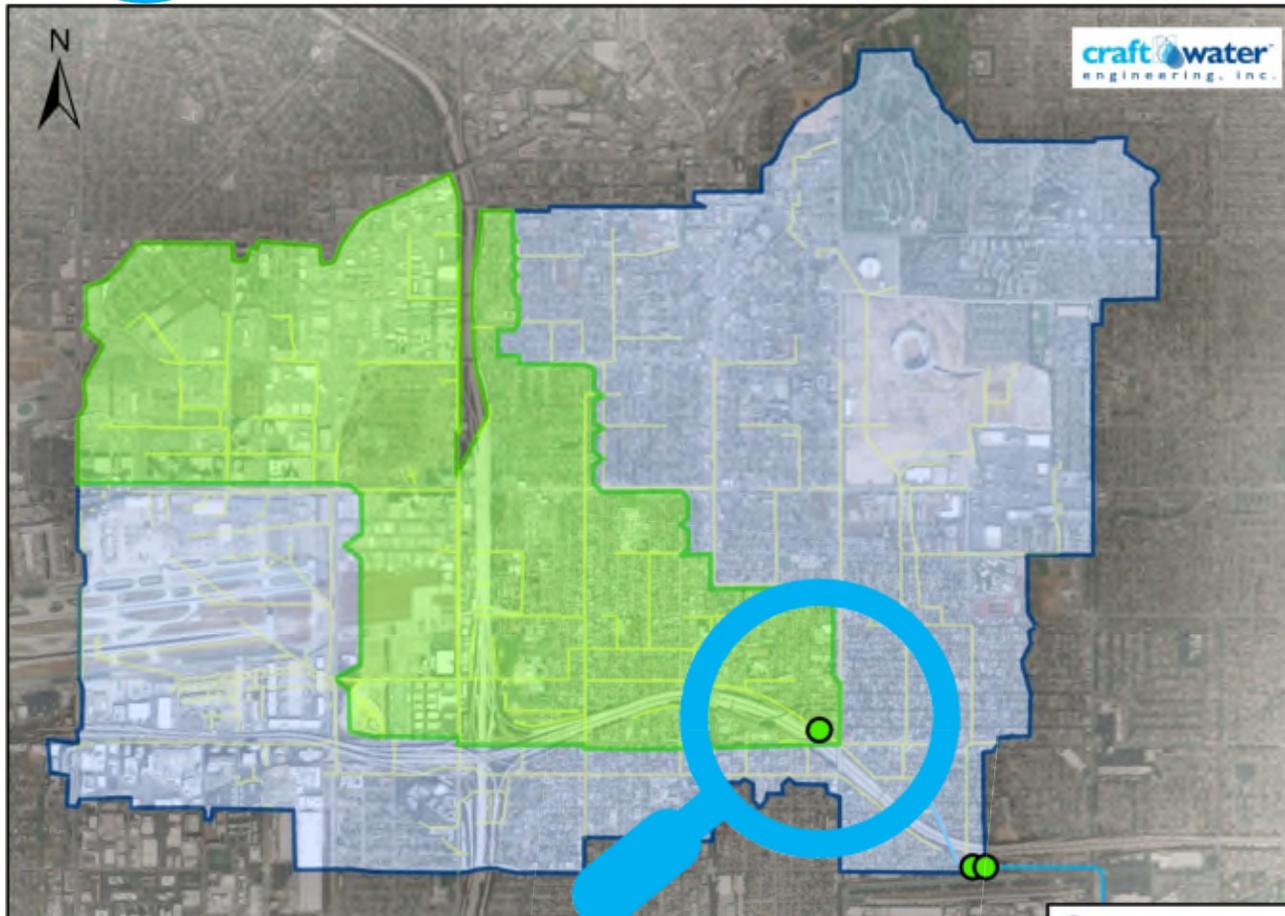


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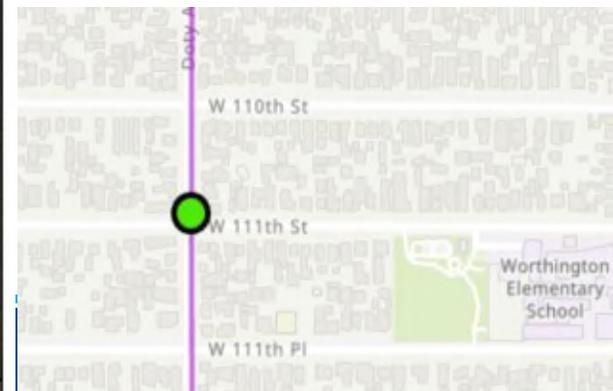
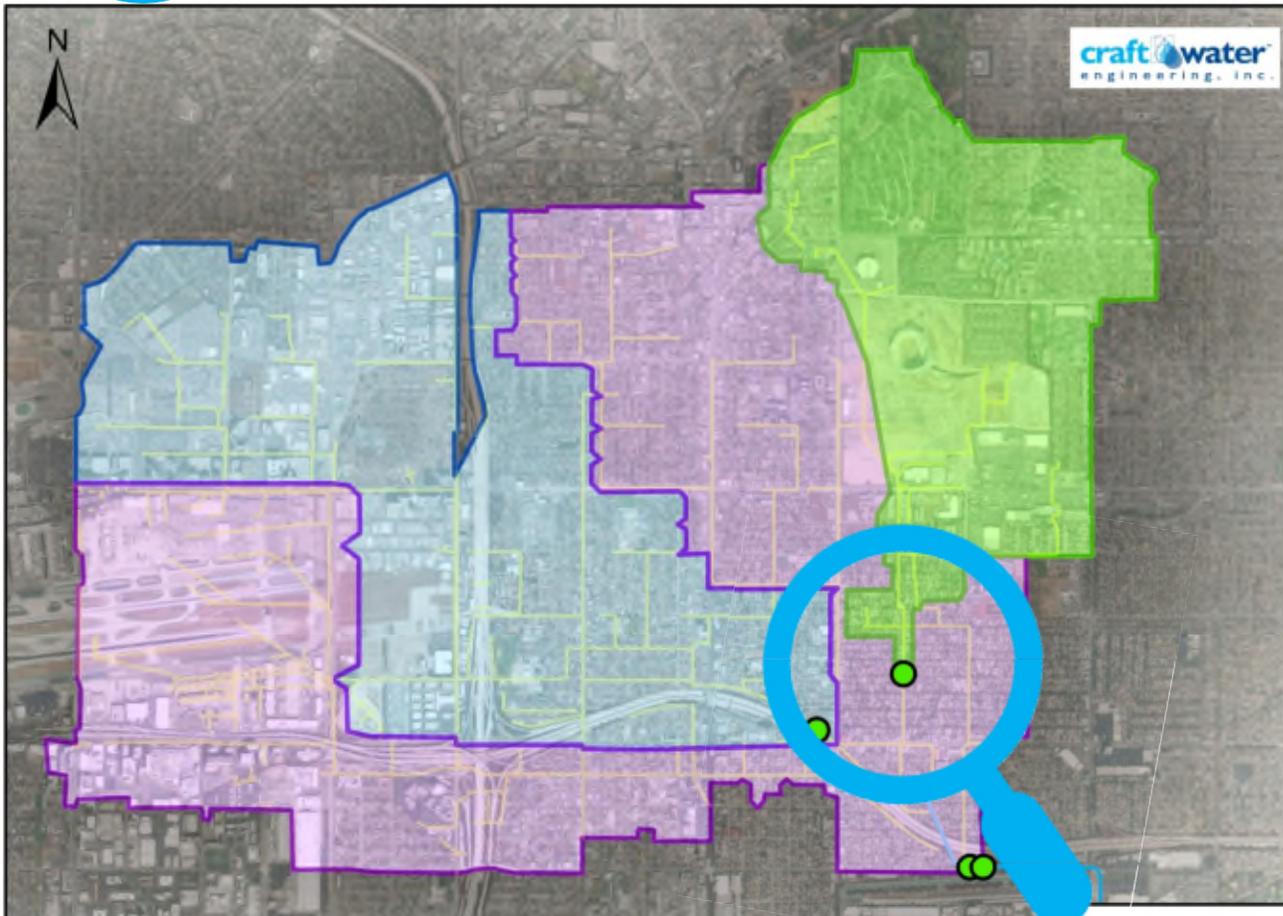


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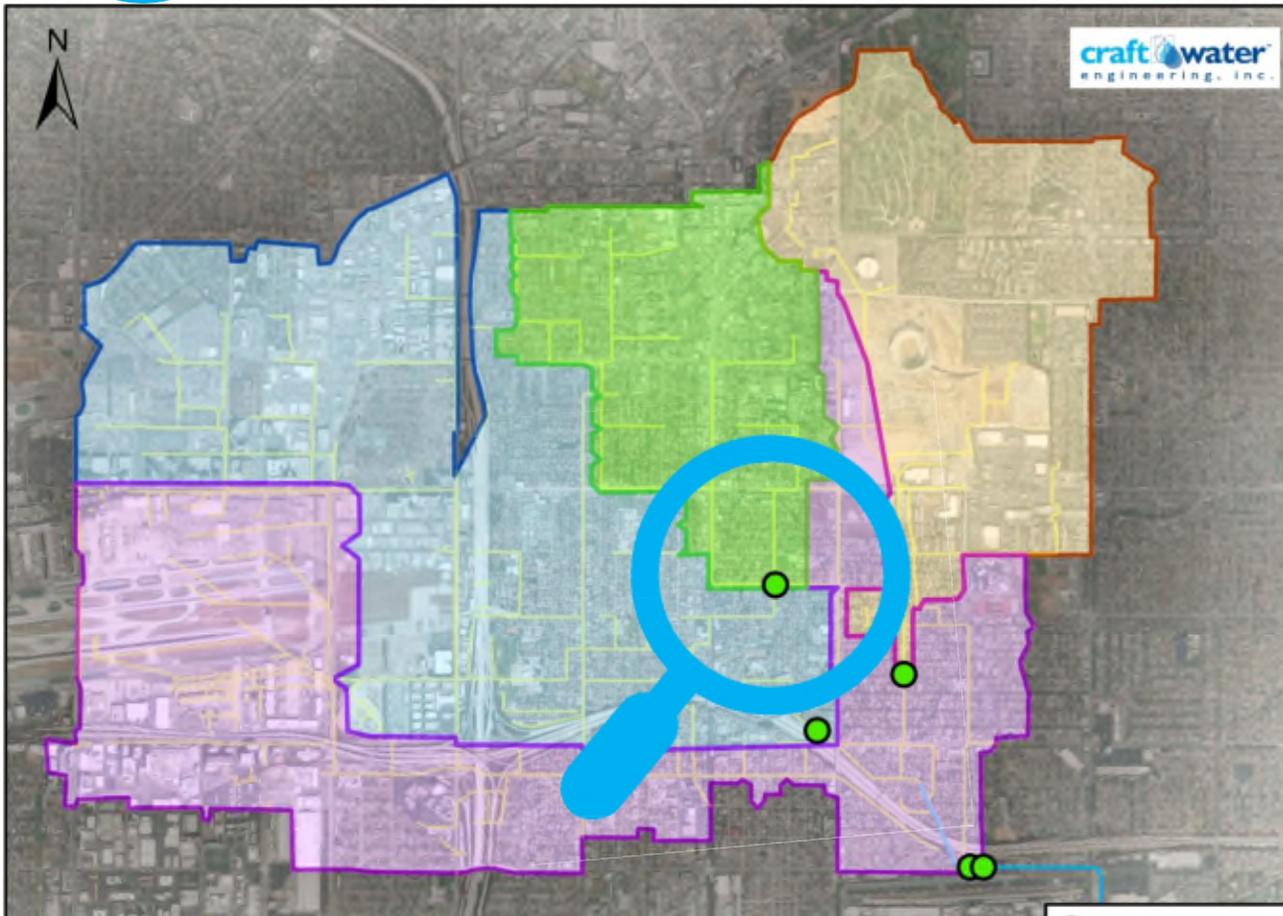


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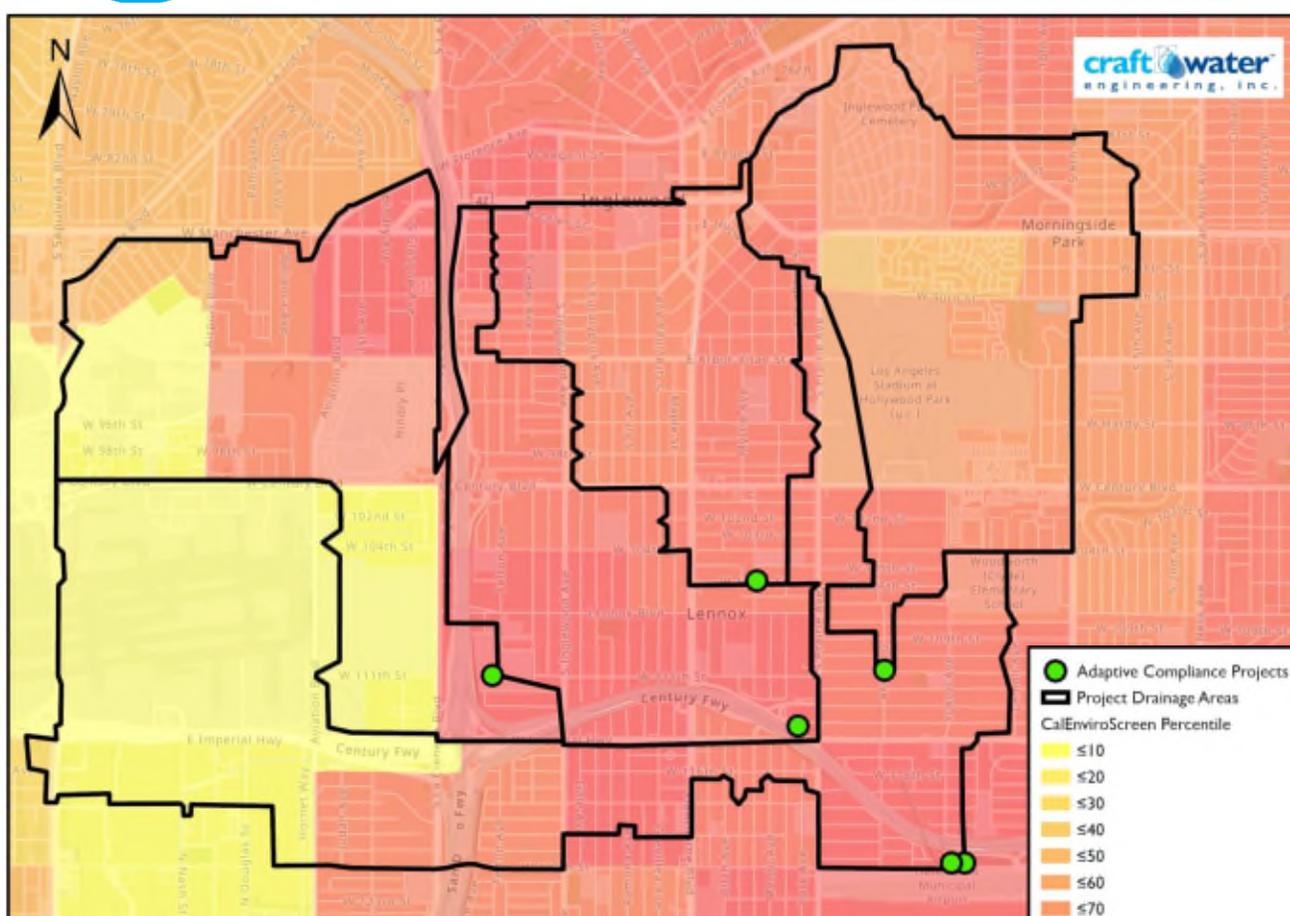


2. Find Full-Spectrum of High-Impact, Multi-Benefit Projects





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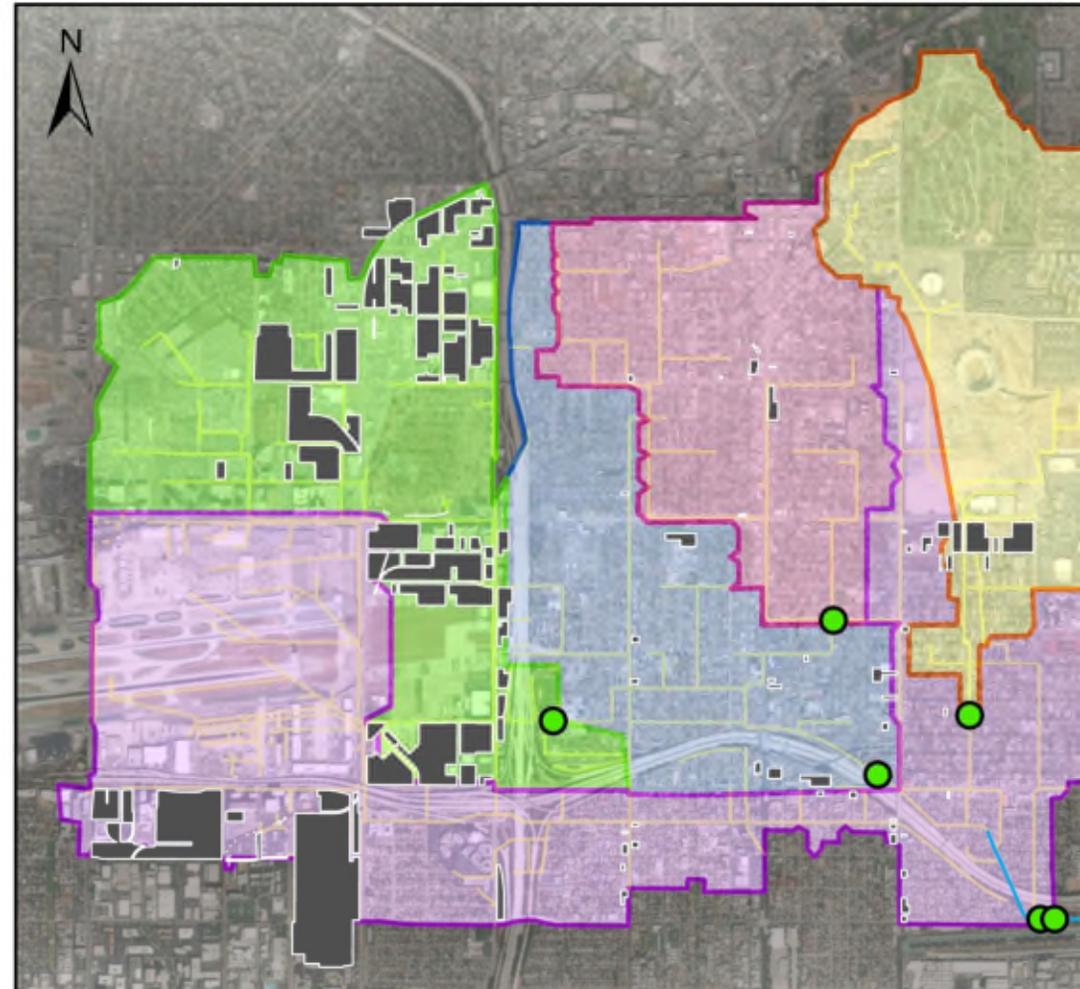
- Local Proof: DC Group invested in method to find previously hidden projects
- Regional Validation: Compton Creek Strategic Pilot Project ID'ed actionable, multi-benefit projects in disadvantaged areas





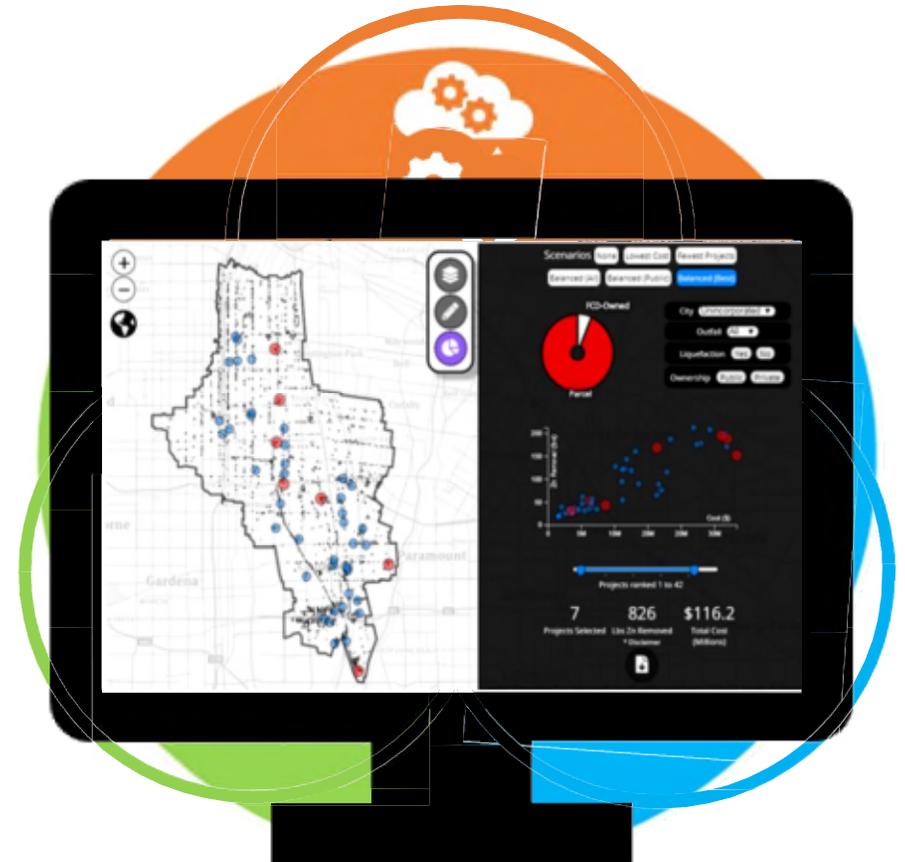
3. Leverage Partnerships to Accelerate Benefits

-  **Local Proof:** DC Group found potential industrial partners to collaborate on offsite stormwater projects (could defray cost by 15%+)
-  **Regional Validation:** Flood Control District investigating stormwater credit trading options



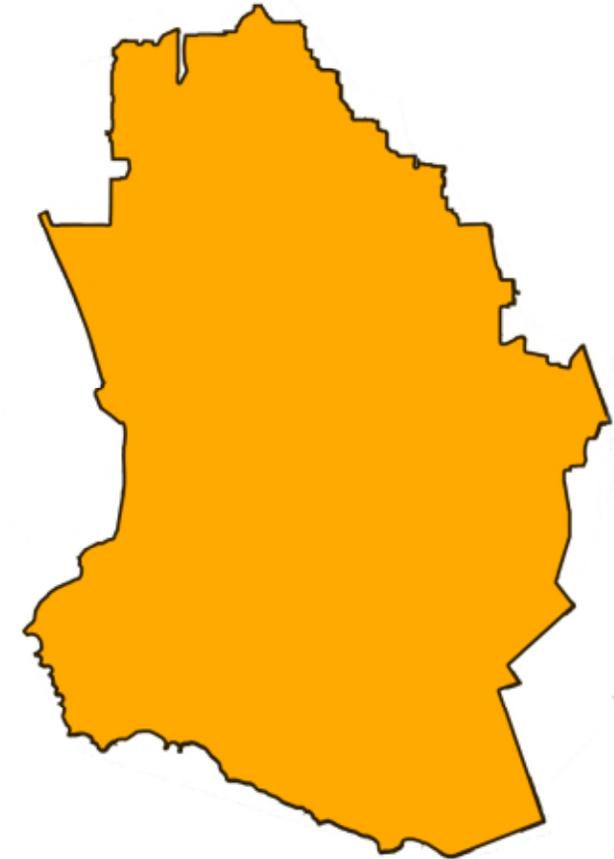
4. Package into a Flexible Platform

- 📍 **Local Proof:** DC Green Street Plan built an adaptable tool to explore site-scale projects
- 📍 **Regional Validation:** Compton Creek Strategic Project Pilot Study built web app

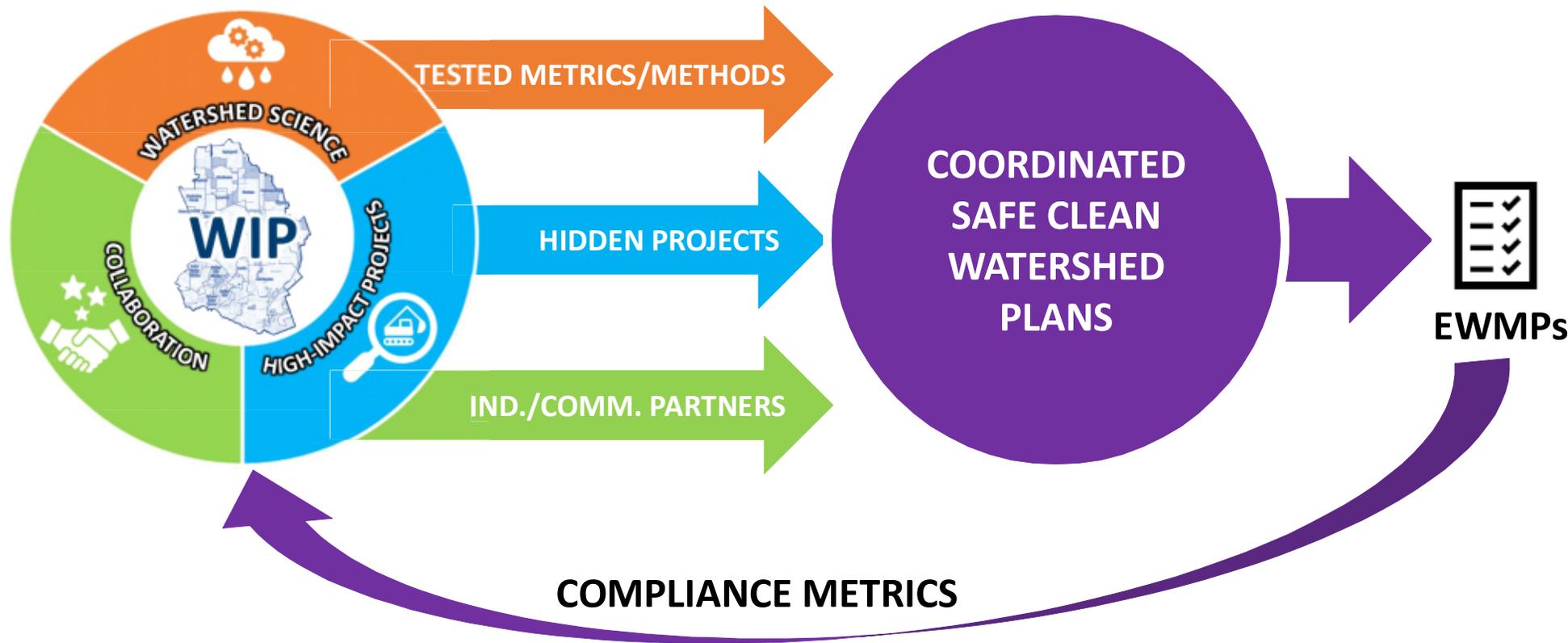


From Proof-of-Concept to Scientific Study: Piloting WIP in DC Watershed

- ☒ It's been done locally and throughout the region
- ☒ The DC Group already investing over \$0.5M in studies to investigate WIP concepts
- ☒ For highest near-term impact, propose to use DC Watershed as incubator
- ☒ Once piloted, WIP can be applied across SSMB to:
 - ☒ **Support disadvantaged communities**
 - ☒ **Provide a flexible platform to evaluate projects**
 - ☒ **Provide framework for productive partnerships**



Synergy with Coordinated Safe Clean Watershed Plans: Supplementing with Local Lessons Learned





Watershed Innovation Platform (WIP)

A framework for advancing watershed science,
finding impactful projects, and incentivizing
inter-permit collaboration