

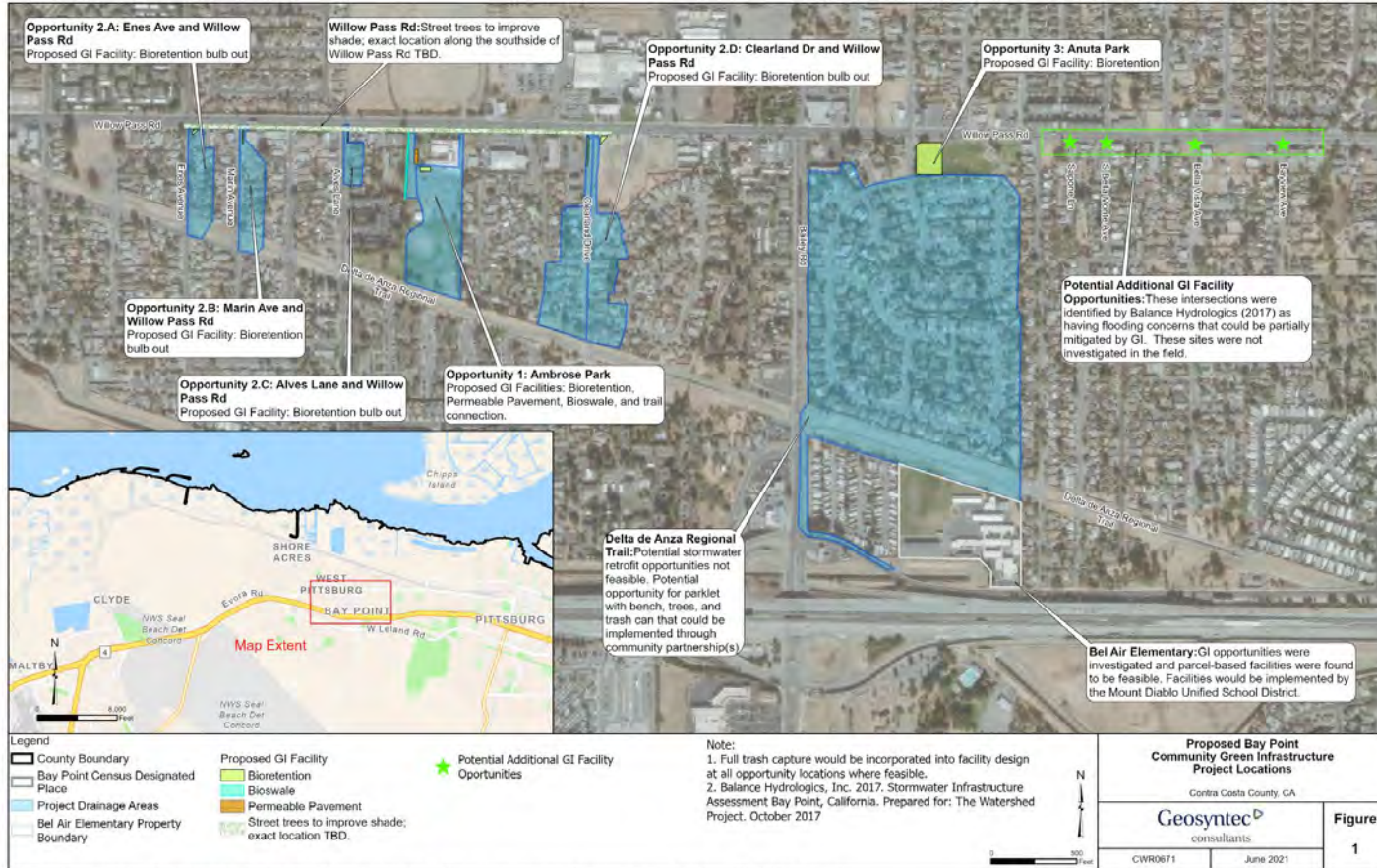
Funding, Maintenance, and Partnerships for Green Infrastructure and Urban Greening in the Parks of Bay Point

To: **Ambrose Recreation and Park District BOD**

Presentation by: **John Steere**, Watershed Planner, Contra Costa County Watershed Program; **Lisa Anich**, Watershed Coordinator, Contra Costa RCD; **James Hansen** (project manager) and **Brent Bucknum** (principal), Hyphae Design Laboratory



Potential GI Opportunities in Bay Point (Geosyntec)

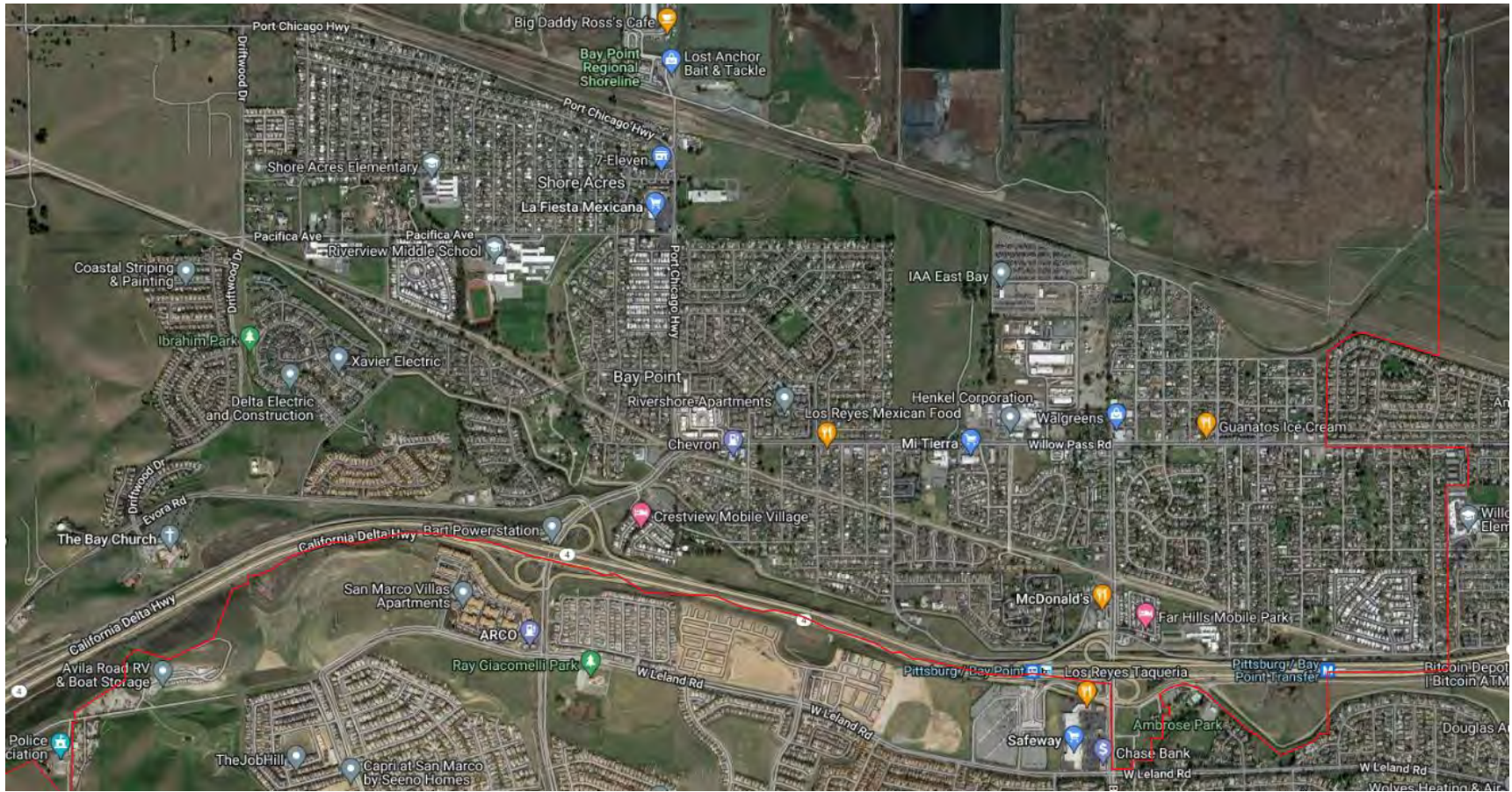


Develop green infrastructure that improves access to & quality of greenspace in East Contra Costa.

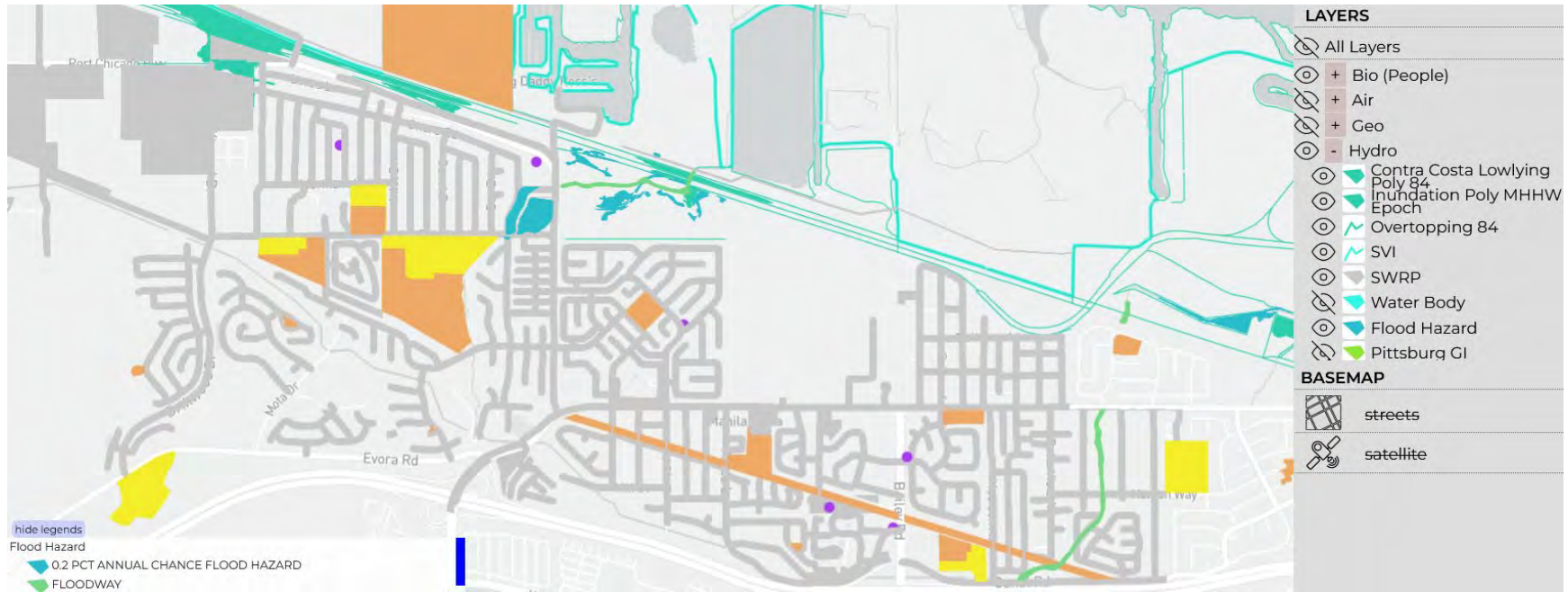
- Understand the need:
 - Assess existing stormwater, greenspace and connectivity infrastructure issues
 - Work with cities, agencies, NGO organizations, and neighborhoods to understand community needs & partnership opportunities
- Recommend improvement strategies
 - Identify where green infrastructure can improve air quality and urban heat island for disadvantaged communities in addition to stormwater.
 - Leverage infrastructure funding to support openspace access and active transportation improvement

Steps to identify GI projects

- Data analysis / Site prioritization
- Priority Project Opportunities of 20-30
- Stakeholder Outreach
- Community Engagement
- Selection of 2-3 projects for additional development (Round 1)
- Conceptual Designs & Costing
- Apply for funding

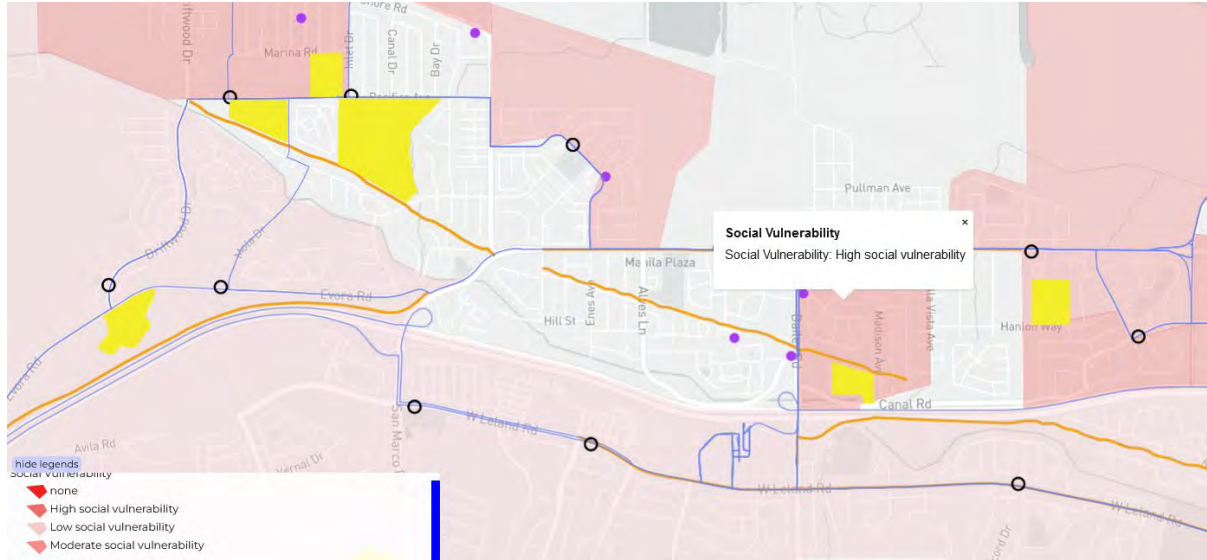


PROJECT OVERVIEW: SITE ANALYSIS



- Parcels (parks, vacant land, public owned) near FEMA 50 year event
- FEMA floodway
- Contra Costa community reports
- Sensitive receptors: schools, parks,

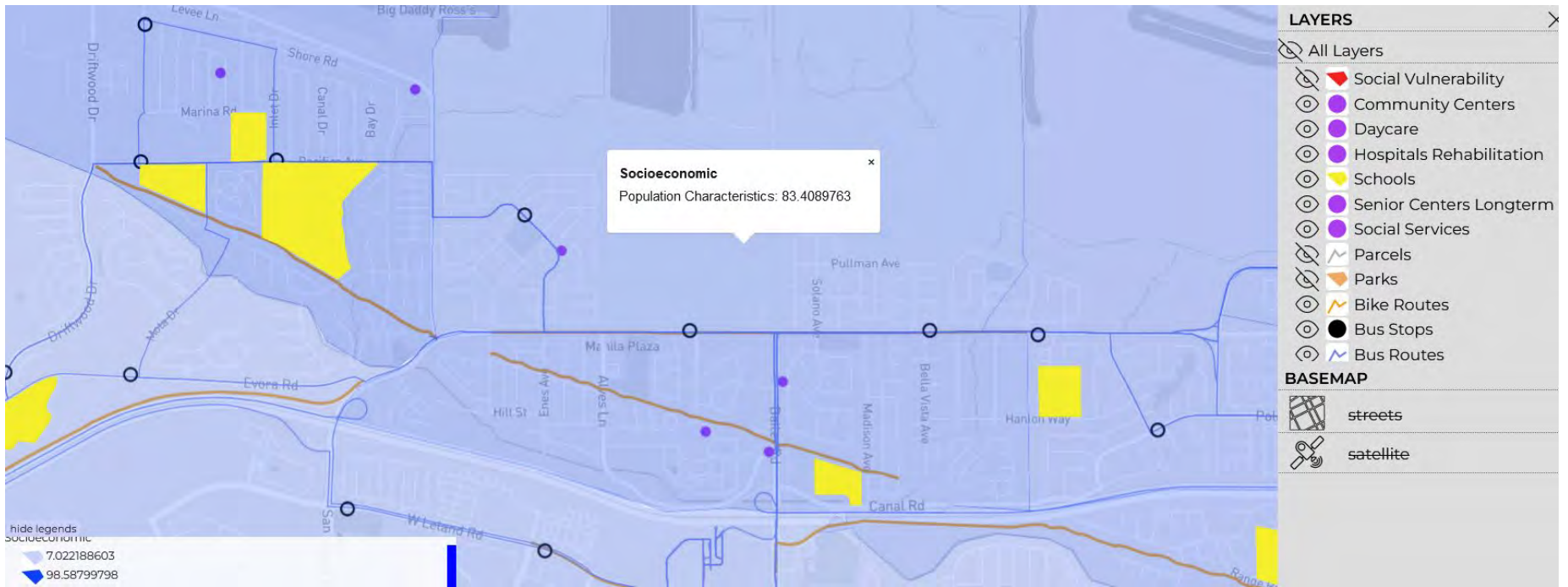
SITE ANALYSIS: HYDROLOGY



- **ART:** # of facilities in floodzone (child care, homeless shelters, senior housing, schools, jails)

	MHHW	
	+16"	+55"
Community Assets & Vulnerable Populations		
Child Care Facilities	0	12
Food Banks	0	0
Group Homes	0	1
Homeless Shelters	0	0
Jails	0	0
Schools	0	12
Senior Housing	0	18
Contaminated Sites		
Cleanup Program Sites	12	58
DTSC-listed sites	2	36
Leaking Underground Storage Tanks	4	49
Military Sites	3	60
RCRA-listed sites	1	51
Landfills and Waste Facilities	3	8
Critical Facilities		
Critical Facilities - City and County	10	36
Critical Facilities - Special District	9	91
Emergency Response		
Fire Stations	0	3

SITE ANALYSIS: FLOOD VULNERABILITY



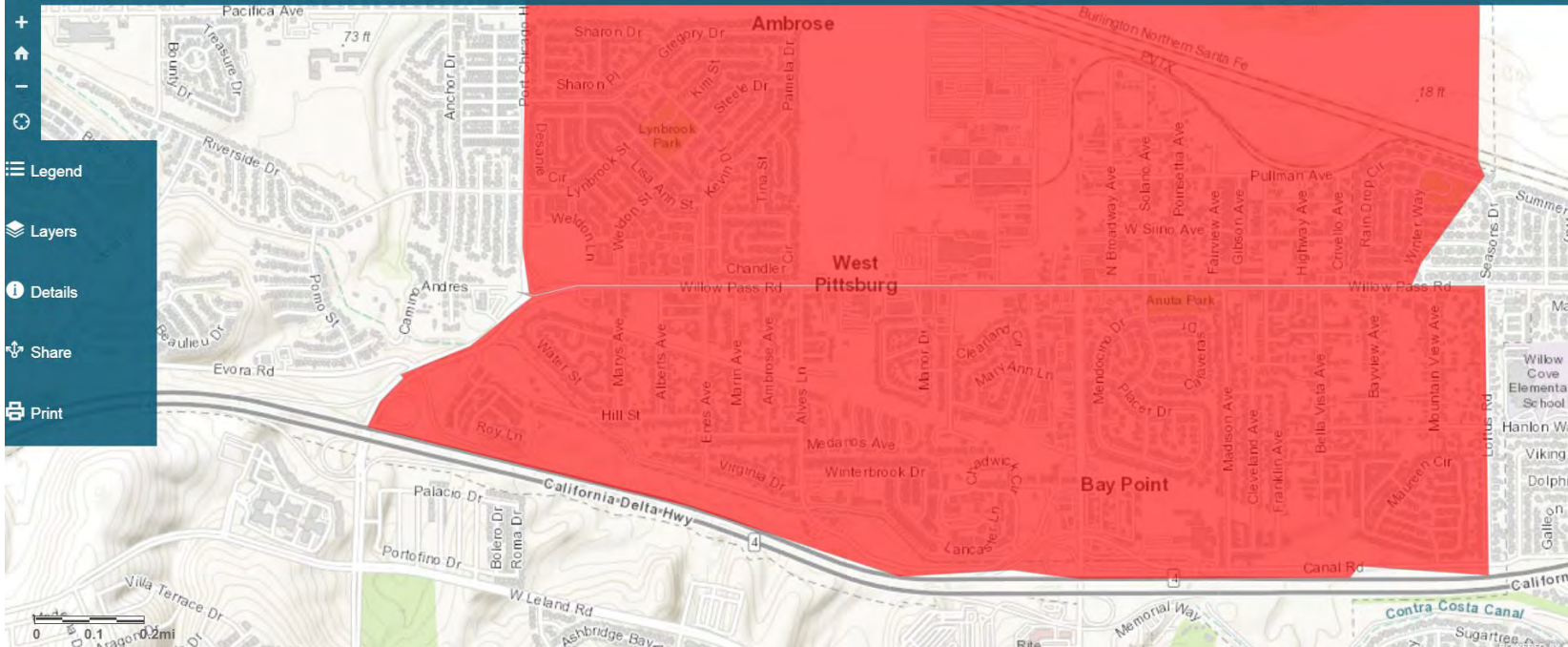
- **Enviroscreen:** Percentile of low birth weight, educational attainment, housing burdened low income households, linguistic isolation, poverty, and unemployment

SITE ANALYSIS: ENVIRONMENTAL JUSTICE



SB 535 Disadvantaged Communities

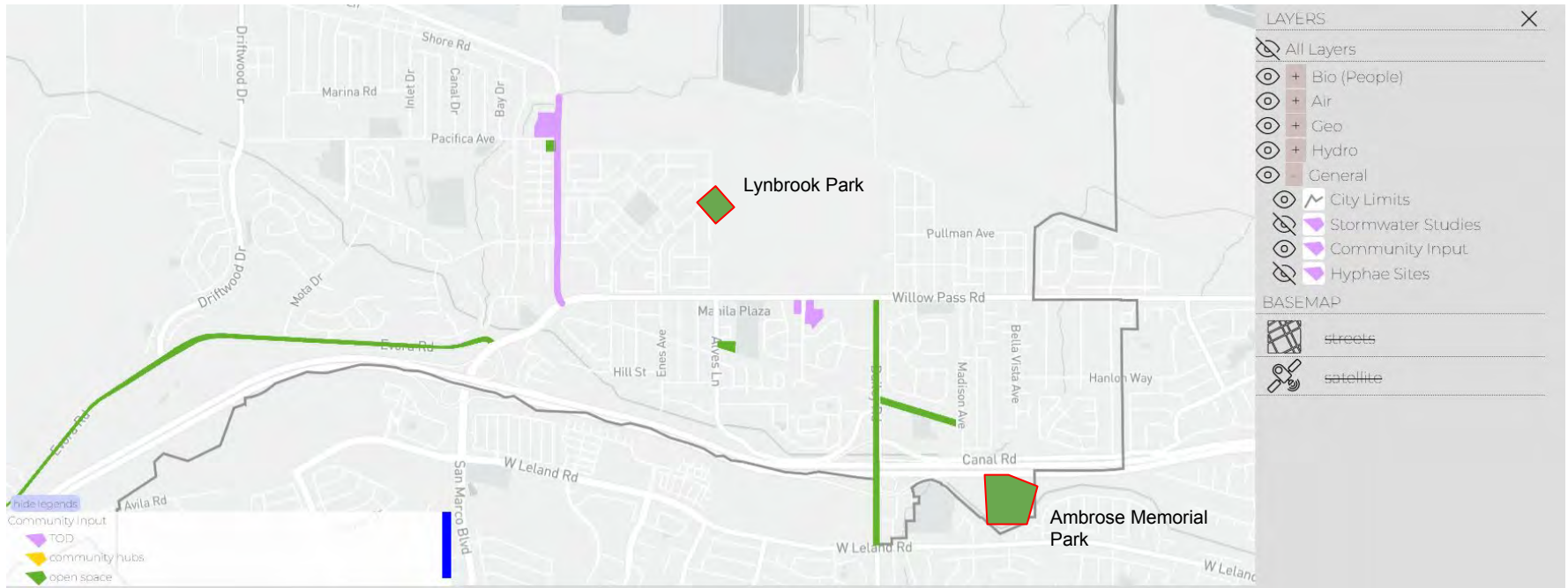
using CalEnviroScreen 3.0 results (June 2018 Update)



- Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts).
- Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts).
- Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (305 tracts).
- Lands under the control of federally recognized tribes Tribes.

SITE ANALYSIS: DISADVANTAGED COMMUNITIES

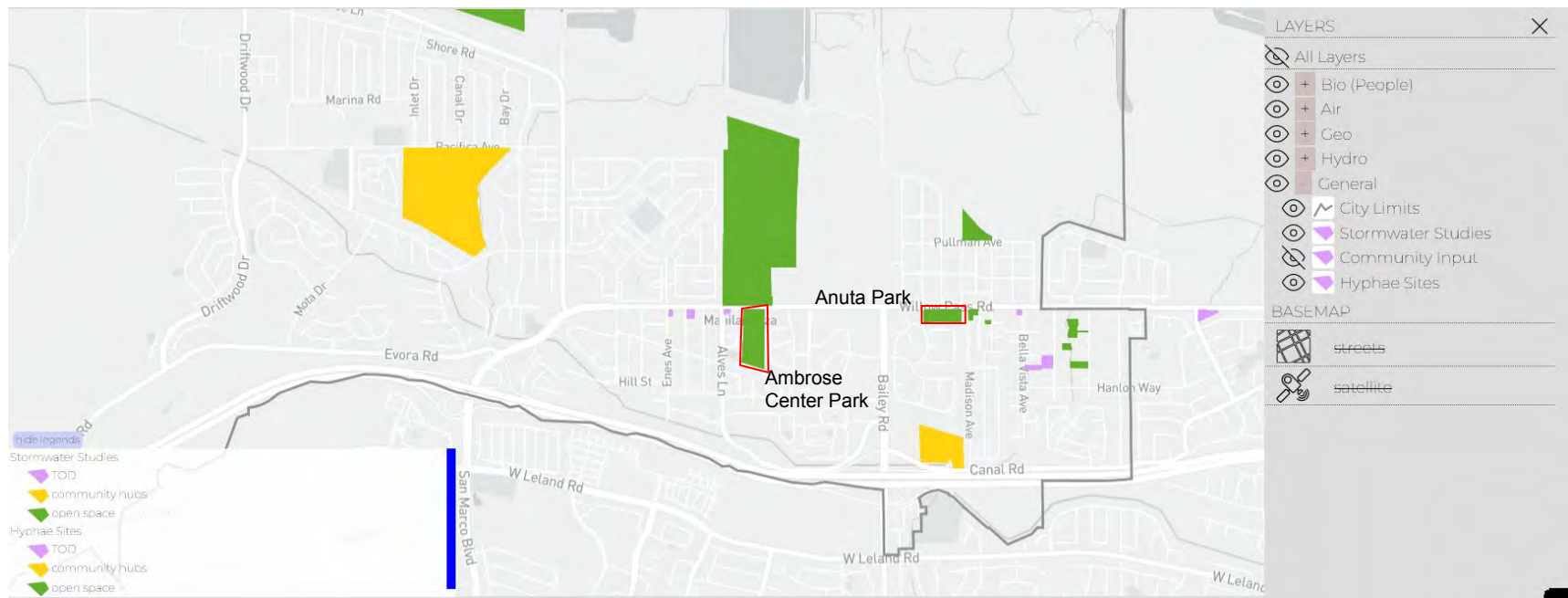




ARPD PRIORITY LOCATIONS- COMMUNITY INPUT

- WORKSHOP HELD BY RCD
- COMMUNITY CALLS
- COMMUNITY SURVEY

SITE PRIORITIZATION: PROJECT TYPES



ARPD PRIORITY LOCATIONS - STORMWATER AND HYPHAE STUDIES

- ACTIVE TRANSIT CORRIDOR OPPORTUNITIES (BIKE, BUS, BART)
- COMMUNITY HUBS (SCHOOLS, COMMUNITY ORGANIZATIONS, BUSINESSES)
- OPEN SPACES (PARKS, TRAILS, NATURAL AREAS)

SITE PRIORITIZATION: PROJECT TYPES





GI CAN ALSO BE INTEGRATED INTO PARKS, OPEN SPACE, AND VACANT LOTS AND ALSO PROVIDE A NATURAL FEATURE AND INCLUDE EDUCATIONAL STRATEGIES WITHIN COMMUNITY SPACES

PROJECT OVERVIEW: GI APPROACHES

Benefits for park district users

1. Funding for park improvements
2. Improved planting and clean up of debris areas
3. Improved paths and access with stormwater
4. Mitigation of flooded, wet fields with poor grass.
5. Shade during hot times in parking lots, play structures, paths.
6. Should not reduce parking, may increase
7. Improve safety and pedestrian access in numerous places

Benefits for park district staff

1. Help solve some ongoing maintenance
2. Provide additional funding stream for park improvement
3. Will need some district staff time,
4. RCD and County can provide grant writing support, some staff time will be needed
5. RCD and County can provide project management and oversight
6. RCD can bring ECO-STEWARD maintenance program for short and longer term maintenance

Benefits for broader community

1. Infrastructure Resiliency
2. Flooding mitigation
3. Trash mitigation
4. Transit connectivity
5. More comfortable, walkable, safe corridors and open space

Ambrose Recreation & Park District

SITE EVALUATION

TONIGHT'S FOCUS: BAY POINT





- * connection (bike, bus, trail)
- GI
- path
- drainage area

AMBROSE CENTER PARK: NEIGHBORHOOD CONTEXT





Proposed Green Infrastructure Facility	
Location:	3105 Willow Pass Road
Coordinates:	38° 1'33.06"N, 121°56'57.88"W
APNs:	093-050-010 and 093-150-002
Owners:	Ambrose Recreation and Park District and EBMUD

Proposed Green Infrastructure Facility Configuration

The proposed green infrastructure features include a bioretention facility (GI Facility #1), permeable pavement parking lots (GI Facility #2), and a vegetated swale (GI Facility #3). The bioretention (GI Facility #1) will capture flow from the majority of the Ambrose Recreation and Park District Site. The existing drainage ditch on the west side of the property will be retrofitted to install the bioswale (GI Facility #3). A collaborative effort with EBMUD and the Ambrose Recreation and Park District will be needed to implement the proposed trail connection from Delta de Anza Regional Trail to Willow Pass Road.

Proposed Facilities:	
GI Facility #1 Drainage Area (sq. ft.):	216,430
Effective Impervious Area (sq. ft.):	90,270
Sizing Factor (percent of impervious area):	2.0%
Bioretention Area Size (sq. ft.):	1,600
GI Facility #2 Drainage Area (sq. ft.):	1,890
Permeable Pavement Area Size (sq. ft.):	1,890
GI Facility #3 Drainage Area (sq. ft.):	18,300
Bioswale Length (ft.):	400
Bioswale Width (ft.):	To be determined with the design of the trail extension.

Note:
 1. Bioretention facility sized at 2% of the total effective impervious area, in accordance with the Contra Costa County Stormwater C.3. Guidebook. Vegetated swale sizing to be determined with the design of the trail extension.
 2. Facility implementation subject to Ambrose Recreation and Park District and EBMUD approval and partnership with the County.



**Opportunity 1: Ambrose Park
Proposed Bay Point Community
Green Infrastructure**

Contra Costa County, CA

Geosyntec[®]
consultants

CWR0671 | June 2021

Figure
2

AMBROSE CENTER PARK: COUNTY STUDY





AMBROSE PARK: SITE PHOTOS



AMBROSE PARK: SITE PHOTOS



NOTES

- 5 inlets, not much tree canopy/shade
- Flooding issues in parking lot
- Drainage ditch is incomplete
- Flooding in ball fields

AMBROSE CENTER PARK: SITE OBSERVATIONS



AMBROSE PARK: SITE PHOTOS

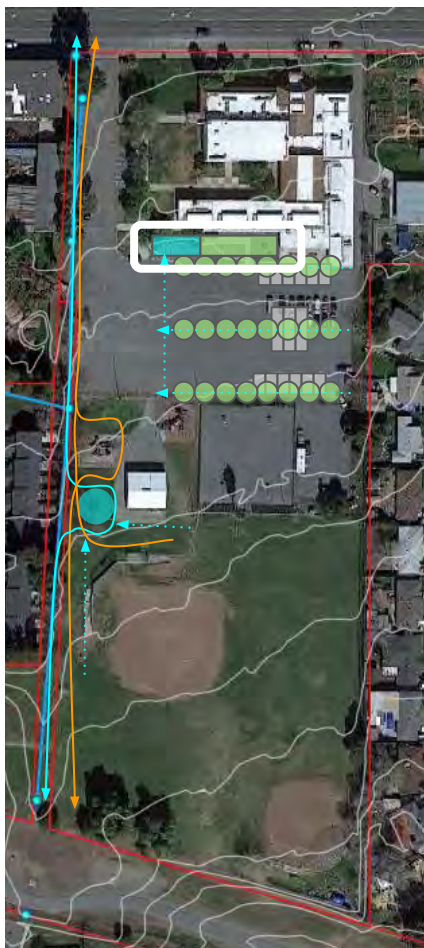


AMBROSE PARK: SITE PHOTOS

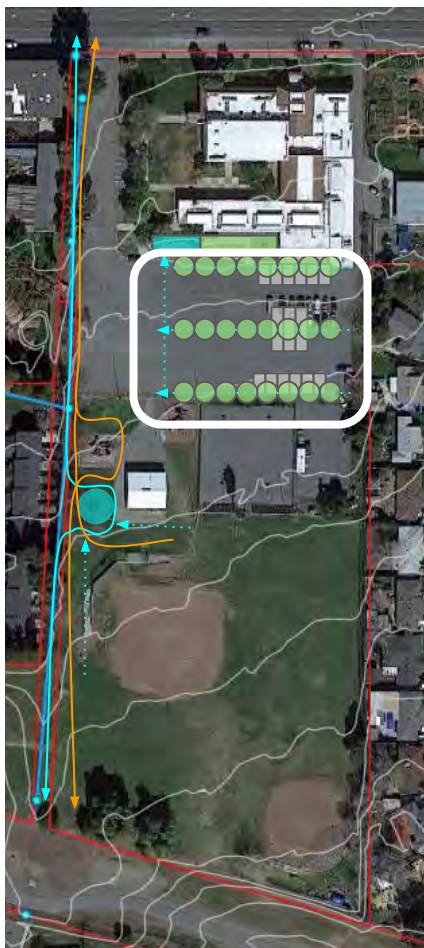


- Bioretention
- Shade: vegetated buffer
- Swales/parking
- Connection to Delta De Anza trail and Willow Pass rd.
- Community Garden access

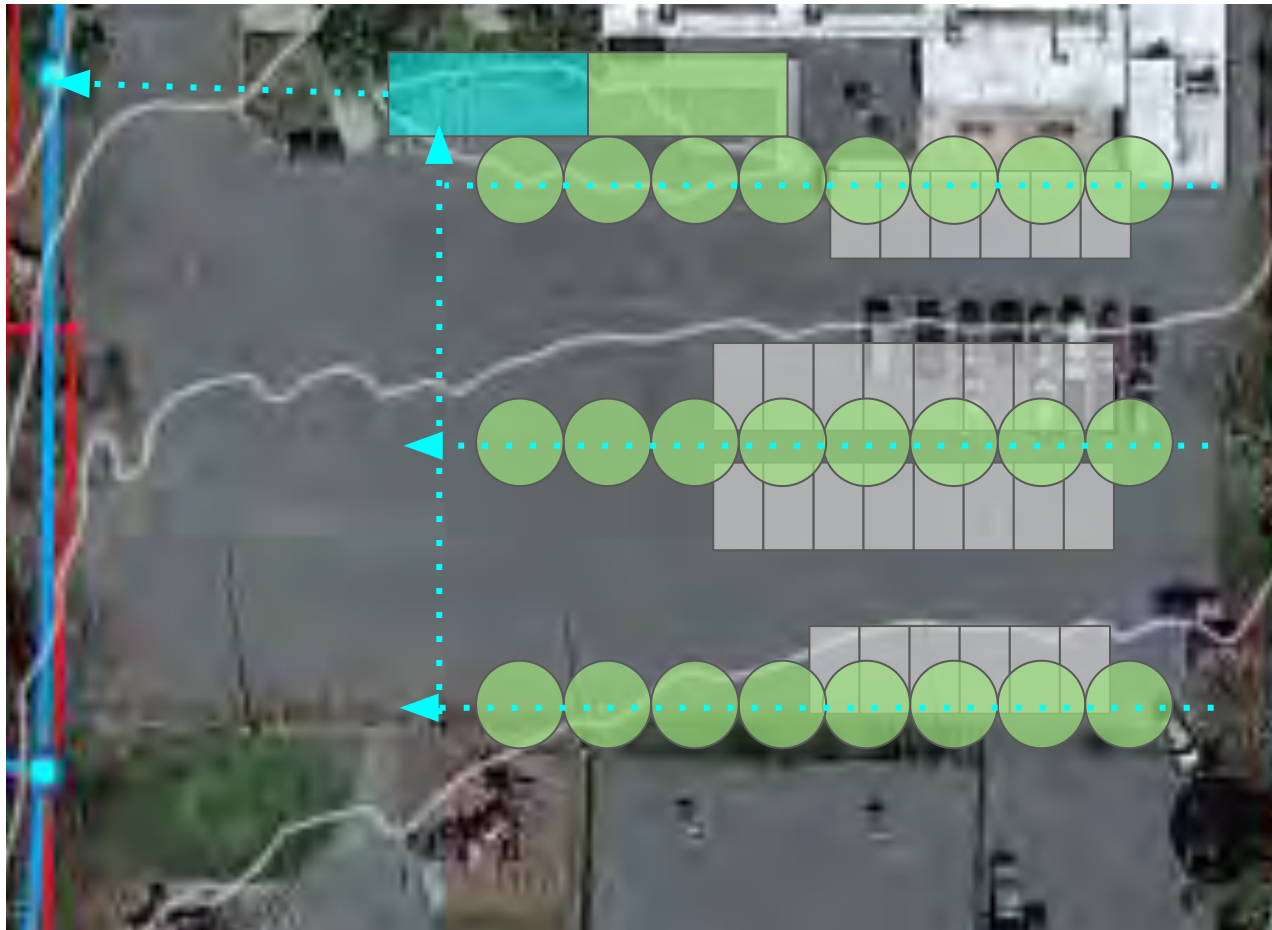
AMBROSE PARK: POTENTIAL OPPORTUNITIES



AMBROSE PARK: POTENTIAL OPPORTUNITIES



AMBROSE PARK: POTENTIAL OPPORTUNITIES



- Similar or more parking w/ organization
- Solve stormwater maintenance issue
- Gain tree cover over the parking lot, improve comfort and urban heat island.
- Create improved pedestrian crossing.

AMBROSE PARK: POTENTIAL OPPORTUNITIES



AMBROSE PARK: SITE PHOTOS

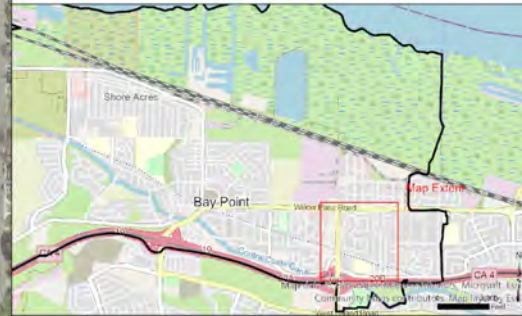


- Additional drainage capacity
- New trail and connections to Delta de Anza and Willow Pass
- Educational opportunities

AMBROSE PARK: POTENTIAL OPPORTUNITIES



Proposed Green Infrastructure Facility	
Location:	2485 Willow Pass Road
Coordinates:	38° 1'34.55"N, 121° 56'18.81"W
APN:	093-531-1027
Owner:	Ambrose Recreation and Park District
Proposed Green Infrastructure Facility Configuration	
Proposed Facilities:	Retrofit existing drainage infrastructure to divert runoff to a regional bioretention basin along the west side of Anuta Park.
GI Facility Drainage Area (sq. ft.):	2,182,920
Effective Impervious Area (sq. ft.):	1,325,480
Bioretention Basin Size (sq. ft.):	27,000
Note:	
1. Bioretention facility sized to achieve 80 percent capture of average annual runoff in Bay Point, using the combined flow and volume method in accordance with the Contra Costa County Stormwater C.3. Guidebook and precipitation data from the Contra Costa County Flood Control District Mean Seasonal Isohyet Map (Drawing B-166).	
2. Facility implementation subject to Ambrose Recreation and Park District approval and partnership with the County.	
3. Sizing may be optimized with continuous simulation modeling in further design stages.	



Opportunity 3: Anuta Park Proposed Bay Point Community Green Infrastructure Contra Costa County, CA		
Geosyntec[®] consultants		Figure 7
CWR0671	June 2021	

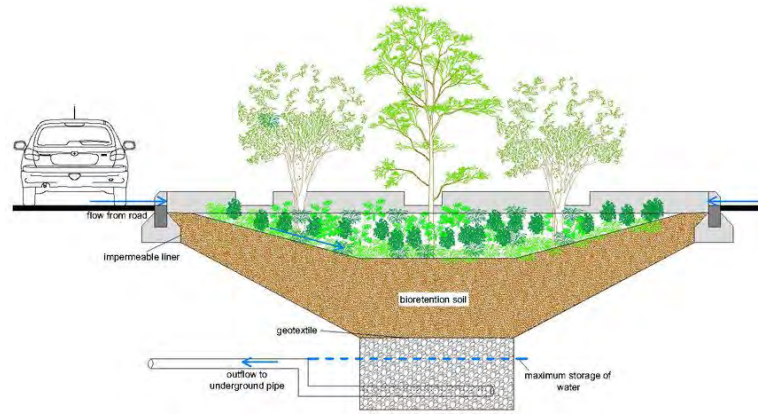
ANUTA PARK: COUNTY STUDY



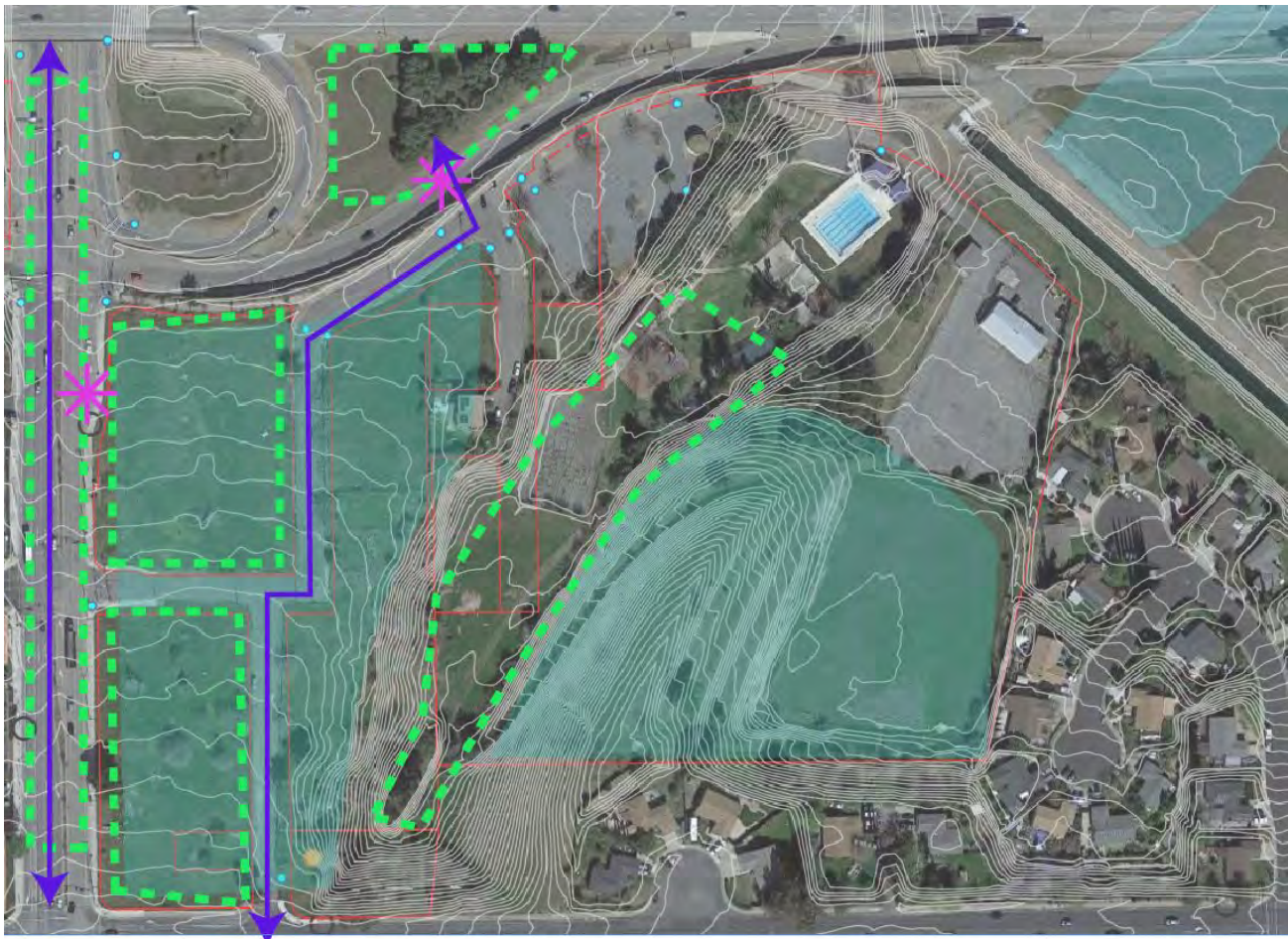


- Bioretention, curb cut
- Vegetated Buffer
- Bus stop GI
- Connection to Bel Air elementary, Ambrose Memorial park
- Connection to N Bailey Rd.

ANUTA PARK: POTENTIAL OPPORTUNITIES

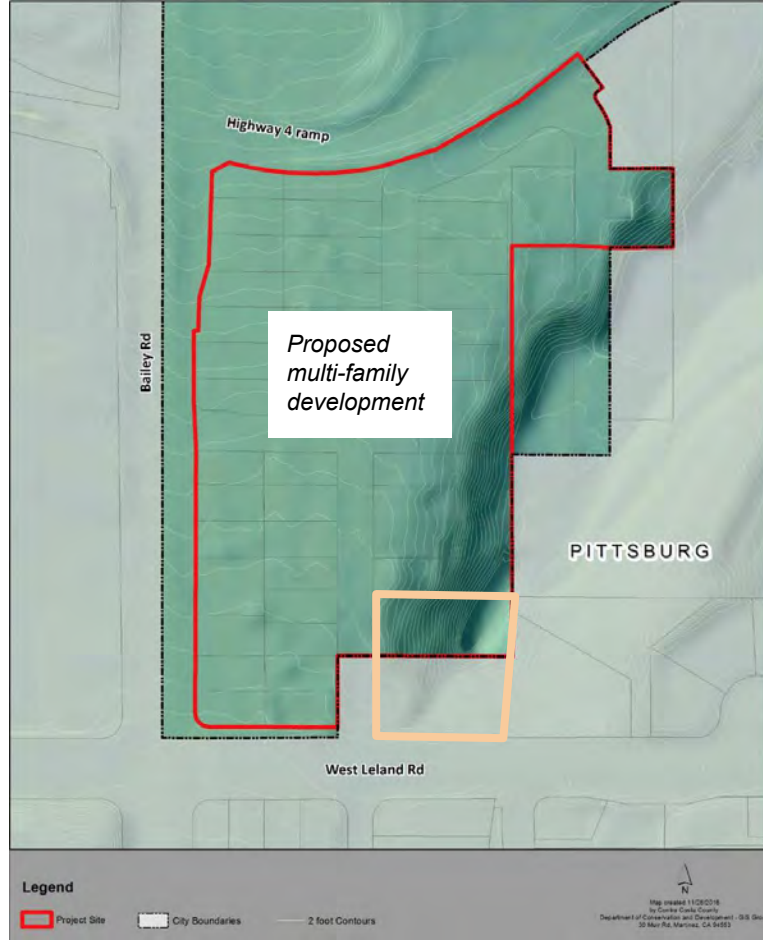
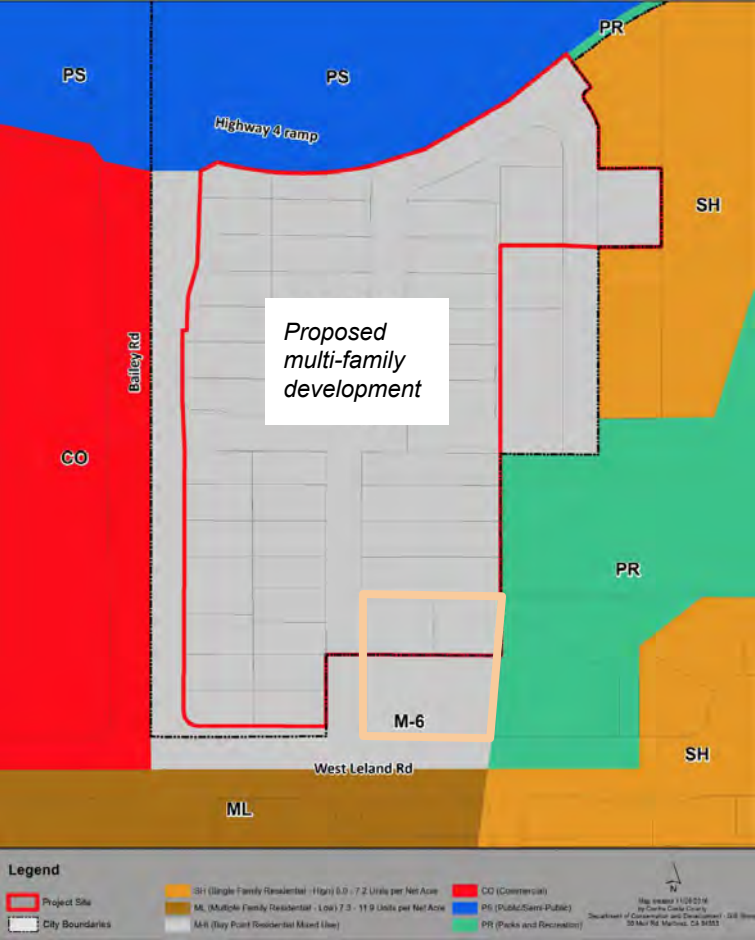


ANUTA PARK: PRECEDENT PHOTOS



- * connection (bike, bus, trail)
- GI
- path
- drainage area

AMBROSE MEMORIAL PARK: CONTEXT



PUBLIC PRIVATE PARTNERSHIP: OPPORTUNITIES





- Habitat and riparian restoration
- Sediment mitigations, increased flood conveyance
- Educational opportunities

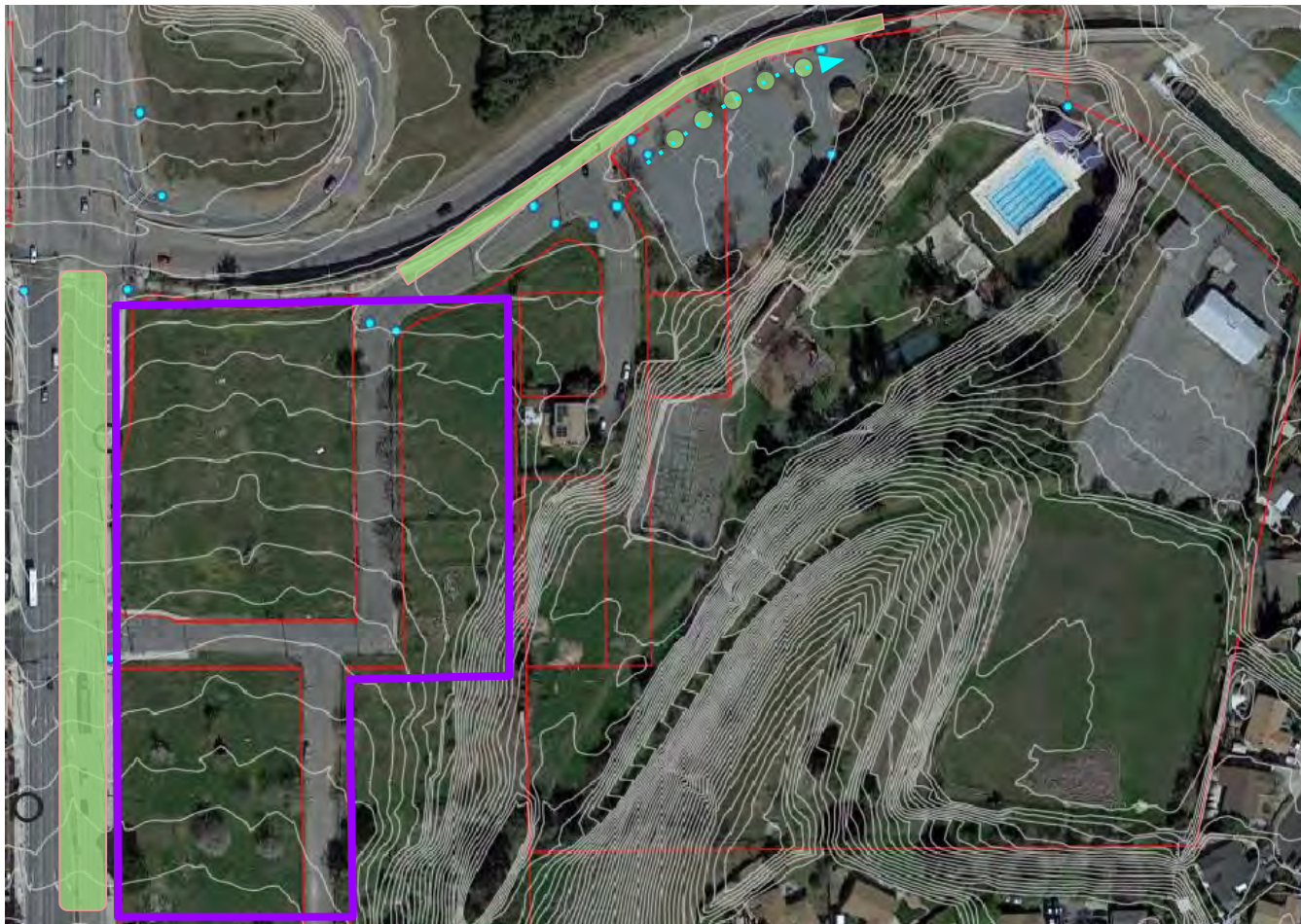
AMBROSE MEMORIAL PARK: OPPORTUNITIES





AMBROSE MEMORIAL PARK: PRECEDENT PHOTOS





- Bioretention
- Channel restoration (Lawlor Ravine)
- Educational opportunities
- Bus stop GI
- Connection to N Bailey Rd., Leland Rd.
- Connection to Caltrans/BART
- Connection to Delta De Anza trail

PUBLIC PRIVATE PARTNERSHIP: OPPORTUNITIES





- * connection (bike, bus, trail)
- GI
- ← path
- drainage area

LYNBROOK PARK: NEIGHBORHOOD CONTEXT



- Daylight storm drain
- Interactive/educational swale
- Bus Stop GI
- Connection to Ambrose Park
- Connection to bike lane on Willow Pass and Port Chicago

LYNBROOK PARK: POTENTIAL OPPORTUNITIES



LYNBROOK PARK: PRECEDENT PHOTOS

Primary Funding Strategies for *Bay Point GI*



- Prop 1 IRWM Grant. DWR (Sept. 2022)
- Caltrans Alternative Compliance Approach for Section 401 Compliance (*Flexible Timing*)
- Urban Greening Grant Program. CNRA (Fall 2022)
- San Francisco Bay Water Quality Improvement Fund
- **Green Benefits District**
- **Keller Canyon Mitigation Fund (for Maintenance)**

NEXT STEPS

1. Show interest in Partnership, interstate in becoming grant partner
2. Timeline for agreement to submit grant would be 2-6 months.
3. Develop MOU between organizations CCC,RCD, APRD,
(Management & Legal Staff will be needed)
 - a. Agreements address project management, maintenance, facility ownership, etc.
4. Funding would come from IRWP and other grants.
5. IRWP Grant would be submitted end of summer
6. Construction could start a year later or within 3 years
7. 3 years included, additional maintenance coordinated with RCD

Partnerships

AMBROSE RECREATION AND PARKS DISTRICT

CCRCD

CONTRA COSTA WATERSHED PROGRAM

BART, CALTRANS

BIKE EAST BAY

CCC SAFE ROUTES TO SCHOOLS

PROJECT IMPLEMENTATION: **STAKEHOLDERS**



Maintenance

COMMUNITY INVOLVEMENT/EVENTS

NON-PROFIT (ECOSTEWARDS)

VOLUNTEERS

ON-CALL MAINTENANCE AS NECESSARY

Implementation Strategy

1. CWP supports implementation of GI projects that are part of the County's GI Plan.
2. County Public Works provides encroachment permits and approves facilities are within drainage and flood compliance.
3. Hyphae is responsible for analysis, design, costing, CM, developing maintenance strategy, funding strategy, and community engagement.

Future Funding Strategy

Proposed Type of Project/Concept	Location	Description	Outreach/Funding Partn	Type	Grants
Ambrose Center Park	Bay Point	Bioretention Shade: vegetated buffer Swales/parking Connection to Delta De Anza trail and Willow Pass rd. Community Garden access	Ambrose Recreation and Parks District (ARPD) Bay Point Garden Club RCD, CCC	Transit Community Hub/School Parks/Trails	IRWM, Keller Canyon Mitigation Fund (KCMF), San Francisco Bay Water Quality Improvement Fund (SFBWQIF)
Anuta Park	Bay Point	Bioretention, curb cut Vegetated Buffer Bus stop GI Connection to N Bailey Rd. ATP project	ARPD, Bike East Bay RCD, CCC	Transit Parks/Trails	IRWM, Caltrans, San Francisco Bay Water Quality Improvement Fund (SFBWQIF)
Ambrose Memorial Park	Bay Point	Bioretention Channel restoration (Lawlor Ravine) Educational opportunities Bus stop GI Connection to N Bailey Rd., Leland Rd. Connection to Caltrans/BART Connection to Delta De Anza trail	ARPD Bay Point Garden Club RCD, CCC CC Housing Authority Caltrans, BART	Transit Community Hub Parks/Trails	IRWM, Caltrans, San Francisco Bay Water Quality Improvement Fund (SFBWQIF)
Lynbrook Park	Bay Point	Bioretention, curb cut Vegetated Buffer Bus stop GI	Ambrose Recreation and Parks District (ARPD) RCD, CCC	Transit Parks/Trails	IRWM, Keller Canyon Mitigation Fund (KCMF), San Francisco Bay Water Quality Improvement Fund (SFBWQIF)

PROJECT IMPLEMENTATION: FUNDING



Future Funding Strategy

Agency	Grant Name	Funding Source	Deadline/Anticipated	Total Available	Funding available per project	Match	Guidelines	Applicants	Notes
Contra Costa County	Keller Canyon Landfill Mitigation fund	Dump fees to Keller Canyon Landfill	April, 2022	Approximately \$1.3 million	No set funding level per project. In 2020 the last year funds were issued, project funding ranged from \$5000-\$200,000	No match required	J_Contra Costa County, CA Official Website	Nonprofits, Public Agencies operating in the communities of Bay Point and Pittsburg	The County Board of Supervisors and specifically Supervisor Glover (District 5) has designated that the Keller Canyon Landfill Mitigation Funds (KCMF) be used to mitigate effects of the landfill site, by funding community-based organizations and County Departments for programs in the following areas: youth services, code enforcement, community beautification, public safety, and community services. Annually, the KCMF are distributed through grants. Stewardship of G.I. or urban greening features would be a highly applicable purpose under this grant program. In 2019 for example, a \$50,000 grant went to the County PWD for the "East County Beautification Program. Contact – Vincent Manuel Deputy Chief of Staff: (925) 608-4200, Office of Supervisor Federal D. Glover.
Bay Area IRWM Coordinating Committee	Prop 1 IRWM	DWR	First Deadline of Applications: August 19, 2022 Second Deadline of Applications: February 1, 2023	\$29 million split between 2 rounds for the SF Bay Area	NA	No match required	https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs ; http://bayareaairwmp.org/grants-projects/grants/	Nonprofits, Public Agencies, Tribal Governments	Per Communication with Joshua Bradt (11/8 and 9): there is \$29M for the Bay Area, with \$6.5M carved out for projects directly impacting disadvantaged communities in the Bay Area. The general pot can also fund DAC projects, as well; since Bay point is a DAC, the application is exempt from CEQA and permitting process. Planning & design can be included, but there needs to be assurance the project can be completed (built) within the 3-4 year grant period. Need to have 30% conceptual designs for inclusion in funding proposal to demonstrate this
San Francisco Bay Water Quality Improvement Fund (SFBWQIF)	SFBWQIF Infrastructure and water quality grant programs	EPA	Guidelines for this biannual grant round should be out in late May early June	TBD	Up to \$1 million, based on other Bay Area recipients (city of San Pablo, SFEP and SFEI) Rumrill Boulevard Green Street received a \$864,000 EPA grant	Normally 1:1, but no match required for DAC No match required	https://www.epa.gov/sfbay-delta/san-francisco-bay-water-quality-improvement-fund#:~:text=The%20SFBWQIF%20has%20invested%20over%20watersheds%20and%20reduce%20polluted%20runoff	Nonprofits, Public Agencies, Tribal Governments	The SFBWQIF priorities are to support projects that enhance aquatic habitat, restore impaired waters, and reduce polluted run-off. Consistent with program priorities, projects are tracked in three categories: restoring wetlands, restoring water quality, and greening development (e.g. Low Impact Development) See: https://www.epa.gov/sfbay-delta/sf-bay-water-quality-improvement-fund-projects#urban EPA is very interested in infrastructure/water quality projects in DAC communities this year and will waive match requirements for the grant proposals. Luisa Valiela (valiela.luisa@epa.gov), Program Lead, (415) 972-3400; Erica Yelensky (yelensky.eric@epa.gov); Outreach Coordinator; (415) 972-3021

PROJECT IMPLEMENTATION: FUNDING



Integrated Regional Water Management



Cormorants, egrets, ducks, and pelicans congregate at Anaheim Lake, one of Orange County Water District's groundwater recharge basins. Orange County Water District is responsible for managing the vast groundwater basin that provides most of northern and central Orange County's drinking water. ©DWR/2015

Integrated Regional Water Management (IRWM) is a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives. This approach delivers higher value for investments by considering all interests, providing multiple benefits, and working across jurisdictional boundaries. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable surface and groundwater supplies.

The IRWM story began in 2002 when the [Regional Water Management Planning Act \(SB 1672\)](#) was passed by the Legislature. Since then, various bond acts approved by California voters have provided over \$1.5 billion in State funding to support and advance integrated, multi-benefit regional projects. The local match on the State resources has

been impressive; often on the order of 4:1. Cities, counties, water districts, community/environmental groups, Tribes and others across the State have worked collaboratively to organize and establish 48 regional water management groups, covering over 87 percent of the State's area and 99 percent of its population.

PROJECT OVERVIEW: ORIGIN

THANK YOU!!

