

# Stormwater Management Oversight Committee Meeting

September 23, 2019

# Agenda

1. Approval of Minutes from 3/20/2019
2. Preliminary GSI Funding Options
  - Consultant presentation – Woodard & Curran
3. GSI Plan Implementation
  - Staff update
4. Committee Member Comments & Announcements
5. Future Agenda Items





# Palo Alto GSI Funding Evaluation

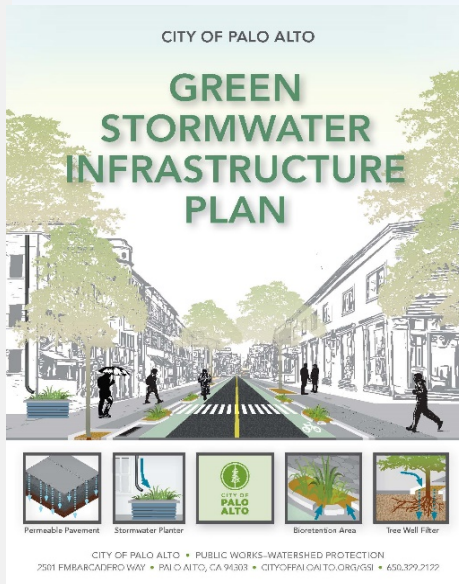


September 23, 2019



# Palo Alto GSI Funding Evaluation Agenda

## GSI Funding Overview



## Capital and O&M Funding Approaches



## Capital Only Funding Approaches

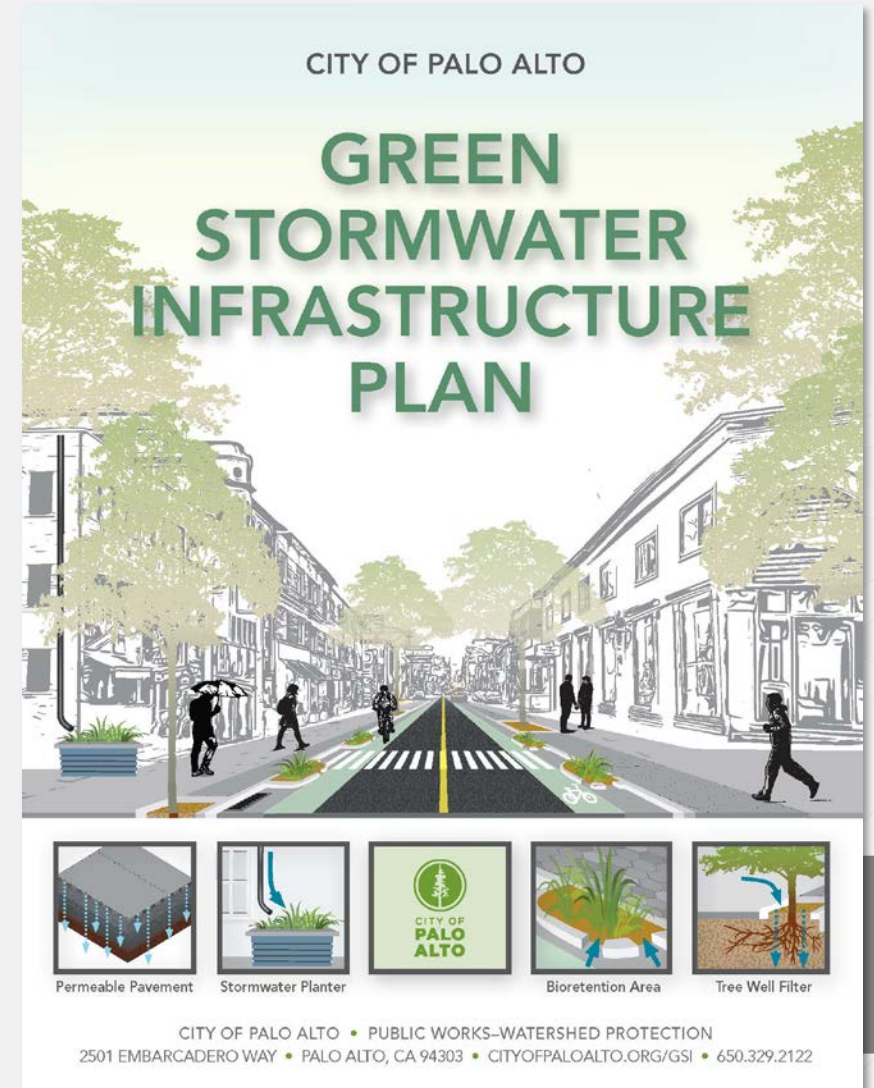


## Next Steps



# Why a GSI Funding Evaluation?

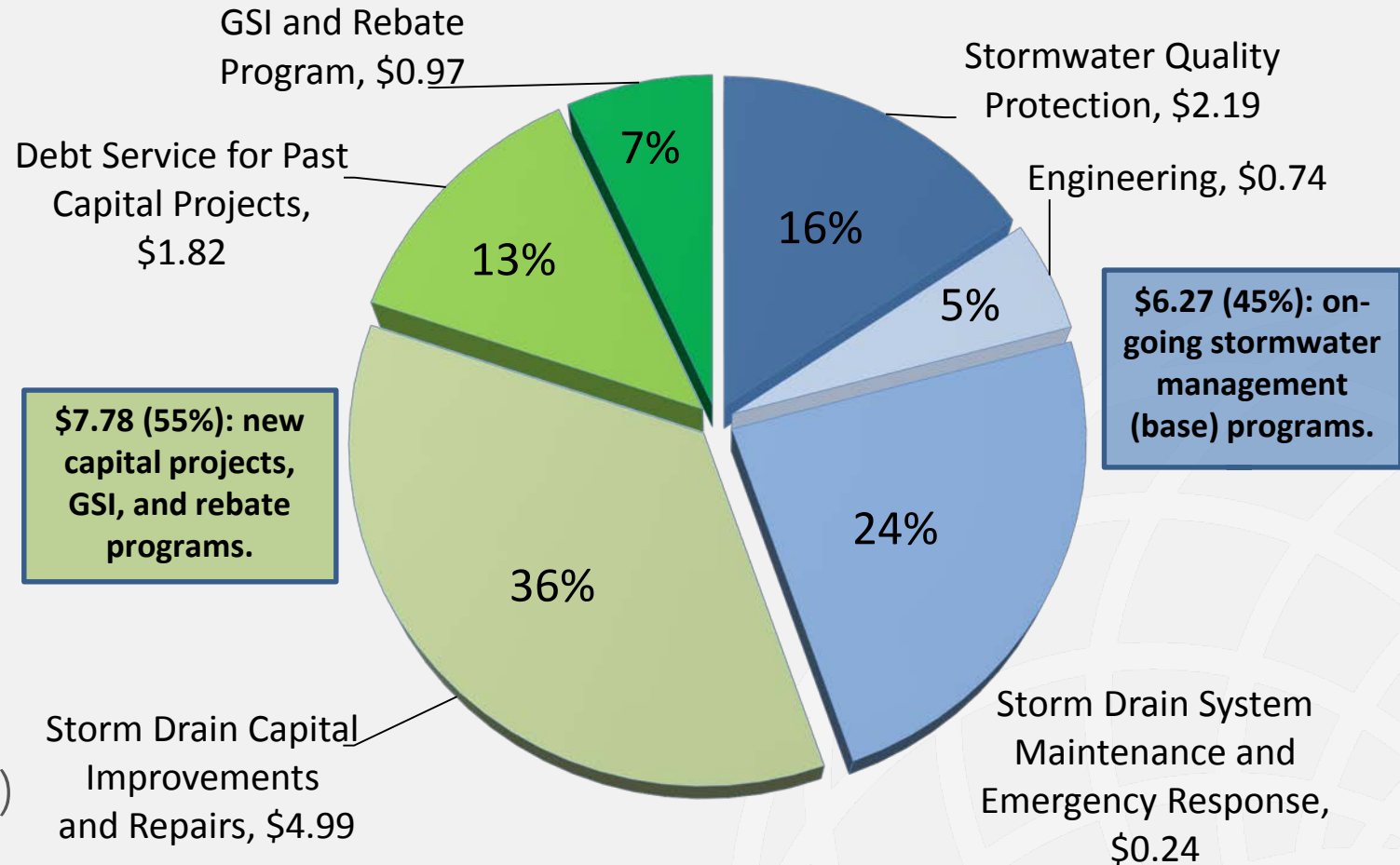
- Significant investment required to implement GSI Plan
- Costs include:
  - Up-front capital costs
  - Long-term operations, maintenance and replacement (O&M) costs
  - Added program management obligations
- Currently, main funding source: Stormwater Management Fee
- Funding stream alone is not sufficient



# Stormwater Management Fee Allocation (2019)

## Estimated Annual Fee Totals (\$14.05):

- Ongoing stormwater management (base) programs
- Projects & infrastructure programs that could fund GSI:
  - Storm drain capital improvements and repairs
  - GSI & incentive programs (~\$505k)
  - Debt service for past storm drain system improvements



# Preliminary Evaluation of GSI Funding Approaches

1. Begin examination of identified funding approaches through literature review and existing case studies
2. Establish requirements, benefits, challenges, implementation strategies, and applicability to City of Palo Alto
3. Engage with City leaders to focus in on a suite of these approaches to create a framework for sustainable GSI funding



# Presenting the Preliminary Evaluation of GSI Funding Approaches

1. Focus on approaches preliminarily identified as most feasible for City of Palo Alto
2. Discuss approach, requirements, benefits, challenges, implementation
3. See it in action – real world case studies



## Moving forward:

- What approaches interest you?
- What do you want to learn more about?



# Potential GSI Funding Options

## Capital and O&M Funding Sources

- In-lieu Fees
- Stormwater Credit Trading
- Public-Private Partnerships
- Business Improvement Districts
- Benefit Assessments and Community Facilities Districts
- Volunteer Programs
- Realignment of Municipal Services
- Balloted Approaches

## Capital Only Funding Sources

- Development Impact Fees
- Grants
- Integration with Transportation Projects
- Long-term Debt Instruments

# In-lieu Fees (Alternative Compliance)

## In-lieu Fees

- Development projects that cannot achieve permit requirements on-site and pay a fee to support a project off-site
- The municipality then uses the fees to support agency-funded projects



# In-lieu Fees (Alternative Compliance)

## Requirements

- Program capacity to develop and implement in-lieu fee program

## Benefits

- Regulatory flexibility
- Allow optimal siting of projects
- Includes O&M costs
- Can improve cost effectiveness
- Establishes range of values for credit trading

## Challenges

- Benefits may be delayed
- Administrative requirements
- May require consultation with Regional Board and/or ordinance update

## Applicability for Palo Alto

- Development in the City likely sufficient to fund an in-lieu fee program.

# Implementing Stormwater Funding Alternative Compliance: In-lieu Fees

## Steps to Implementation

Develop  
framework

Establish  
guidelines  
(compliance  
& eligibility)

Evaluate  
fee

Recommend  
fee and  
establish  
consensus

Conduct  
outreach to  
gain buy-in

Establish  
fund

Administer  
fund and  
direct  
payments



# See it in Action: In-lieu Fees

## SFPUC Fee In-lieu Evaluation Case Study

### Criteria

Eligible projects:  
discharge into the  
SFPUC combined  
sewer system  
  
have  
development/  
regulatory  
constraints  
(Modified  
Compliance)

### Fee Development

Fee unit =  
impervious project  
acre.

Based on capital  
GSI costs, SMO  
project data,  
vetted GSI unit  
costs

Life cycle = O&M  
for 20 years

### Issue Fee Recommendation

\$766,000 base  
+ \$154,000 life  
cycle

**\$920,000 total  
fee per acre of  
impervious  
surface or \$21  
per square foot**

### Outreach

Developed memo  
and presentations  
to stakeholders to  
gain consensus

### Administration

2021 ord. update (est)  
Fund construction of  
equivalent or better  
performing projects  
Projects strategically  
located (e.g., through  
an existing SFPUC  
capital program or a  
grant program)



# Alternative Compliance: Stormwater Credit Trading

- Developers/property owners can buy stormwater “credits” to meet a portion of stormwater management requirements
- Property owners who voluntarily implement GSI or include excess capacity in GSI installations sell credits
- Markets are agency-managed
- Markets can create incentives to treat stormwater in excess of the permit requirements on regulated sites AND treat stormwater on non-regulated sites
- Some Bay Area agencies looking into regional credit trading program



# Public-Private Partnerships

- Public-Private Partnerships: P3s
- Long-term contractual agreements between public agencies and private sector
- Can provide faster project completion, lower project cost, utilize private sector capital, and mitigate agency risk
- P3 activities create long-term partnerships to help build and maintain public infrastructure
- Community-based public-private partnerships (CBP3) focus on the overall needs and goals of the communities

# Public-Private Partnerships

## Requirements

- Capacity to develop, maintain and provide oversight in long-term collaborations

## Benefits

- Can provide for design, construction and long-term maintenance of GSI
- Leverage public funds while minimizing impacts to a municipality's debt capacity
- Improved asset management
- Draw on private sector expertise and financing
- Transfers delivery risk from public to private
- Introduces broader policy goals and objectives important to the community
- Diversify economic opportunities
- Opportunity to create economic and environmental impact

## Challenges

- Require clarification of project needs and potential benefits to develop
- Administrative requirements
- Require consultation with Regional Board

## Applicability for Palo Alto

- The City's Fee may provide needed funding for a major P3 GSI project, could be implemented in multiple forms over various timeframes.

# Implementing Stormwater Funding Public-Private Partnerships (P3s)

## Engage local decision makers

Communicate P3 opportunities, cost-savings and co-benefits to community

## Define benefits

Define relevant metrics to measure and track the project or program's performance

Varies

Further steps depend on the program or project type

# See it in Action: Culver City's Washington Blvd Stormwater and Urban Runoff P3 Case Study

**Partners:** Cities of Culver City and Los Angeles, and Costco Wholesale Corporation

**Project:**

- Install a sealed tank to capture and detain stormwater from 60 acres in the Marina del Rey watershed (Costco parking lot and adjacent drainage areas in Culver City and LA).
- Treat stormwater at the Hyperion WWTP and discharge in LA's purple line for irrigation and other usage.

**Estimated cost = approximately \$6.5 million:**

- \$2.5 million – City of Los Angeles
- \$1.9 million – City of Culver City
- \$1.3 million – Costco Wholesale Corporation
- \$767,136 – Grant (2015 LA County Regional Park and Open Space District)



Sub-surface sealed tank/Costco parking lot design

P3 will provide stormwater quality, water supply, etc.  
Estimated project completion date is end of 2019.



# Business Improvement Districts

- Also known as a Community Benefit District (CBD)
- Property owners tax themselves and manage the funds to build or maintain certain assets
- Can be set up and administered by the community members.
- City administers a BID in downtown Palo Alto (managed by the Palo Alto Downtown Business and Professional Association) that assesses an annual fee (\$50-\$500), paid by all businesses within the District.

# Business Improvement Districts

## Requirements

- Resolution of intention
- Public hearing

## Benefits

- Community investment in improvements
- Existing BID in Palo Alto

## Challenges

- Projects must be within BID
- Cannot issue bonds

## Applicability for Palo Alto

- Existing BID may fund activities, but operating budget is low compared to GSI capital costs.
- Maintenance activities may be more feasibly funded.

# Implementing Stormwater Funding Benefit Improvement Districts

## Steps to forming a BID

Propose a new district by adopting a resolution of intention.

Specify improvements and activities to be financed by BID.

Provide a public notice and a public hearing.

Appoint an advisory board.

# See it in Action: Dogpatch and Northwest Potrero Hill Green Benefit District (GBD) Case Study

GBD (San Francisco) was developed to fund and maintain the public-realm landscaping in the area.

## Activities:

- Augment City services by removing trash and reporting problems five days per week.
- Weekly maintenance in 12 parks/green spaces
- Planned and executed path repairs and improvements, seating and lighting upgrades, and installation of efficient irrigation systems.
- Worked to secure grant funding and donations to augment property owner assessments.



The landscape staff used to maintain this landscaping can be trained in GSI maintenance practices and qualified in sustainable landscaping services.



# Benefit Assessment & Community Facilities District

Benefits Assessments	Community Facilities District
<ul style="list-style-type: none"> <li>• Can include fire suppression, flood control, and storm drain assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Can finance improvements and services such as streets, schools, parks, and libraries</li> </ul>
<ul style="list-style-type: none"> <li>• Vote by property owners. Ballots weighted according to benefit received (and proposed assessment costs). Majority needed to pass.</li> </ul>	<ul style="list-style-type: none"> <li>• Two-thirds majority vote of registered voters in the proposed CFD is needed. If &lt;12 registered voters, property owners vote.</li> </ul>
<ul style="list-style-type: none"> <li>• Annual renewal process required</li> </ul>	<ul style="list-style-type: none"> <li>• Rate may run in perpetuity. Agency sets rate annually, no lengthy renewal process</li> </ul>
<ul style="list-style-type: none"> <li>• Very difficult to fund 100% of cost</li> </ul>	<ul style="list-style-type: none"> <li>• May fund 100% of cost, with exceptions for landowner-approved CFDs</li> </ul>
<ul style="list-style-type: none"> <li>• Other Info           <ul style="list-style-type: none"> <li>• Special vs. general benefit analysis</li> <li>• Cannot assess for general benefit</li> <li>• Includes O&amp;M costs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Other Info           <ul style="list-style-type: none"> <li>• Sets a Maximum Annual Special Tax Rate</li> <li>• Allows for expedited future annexations</li> <li>• Includes O&amp;M costs</li> </ul> </li> </ul>

# See it in Action: City of San Mateo, North Shoreview Assessment District Case Study

- City of San Mateo's North Shoreview Assessment District
- Created to finance improvements to remove certain San Mateo neighborhoods from Special Flood Hazard Areas (SFHA)



Anticipated projects to be funded include levee and pump station improvements.

# Volunteer Programs

- Engage the community with GSI, increase support for projects
- Assist with GSI installation/maintenance
- May reduce the maintenance staff time needs, but coordination can be labor-intensive
- City partners: Grassroots Ecology (rain barrel installation) and Canopy (tree planting)



# Development Impact Fees

- Development Impact Fees collect a proportional share of funds from new to offset the impact of new development.
- Requires documentation of the “nexus” between the fees, the benefit of the facilities to mitigate new development impacts, and the proportional cost allocation.
- Palo Alto has a traffic impact fee program (which was evaluated in the Final EIR for the Comprehensive Plan and identified as a mitigation measure for the Plan).



# Development Impact Fees

## Requirements

- Moderate to significant new growth
- Prepare “Nexus Study” to link fee and benefit
- Adopt ordinance or resolution

## Benefits

- Broad improvements can be financed
- Fee can be applied at multiple scales
- No voter approval needed

## Challenges

- Cannot require new development to pay for existing deficiencies
- Revenue may be tied to market conditions
- Funds capital costs only

## Applicability for Palo Alto

- City currently uses development impact fees
- Given current levels of development, fees may be an attractive funding source

# Implementing Stormwater Funding Development Impact Fees

## Steps to implementation

Review  
existing  
development  
fees

Establish  
level of  
service (LOS)  
model

Prepare  
Nexus Study

City Council  
adoption

# See it in Action: City of San Mateo's Sustainable Streets Plan Case Study

- Transportation Improvement Fee assessed to developers to provide adequate transportation improvements to serve cumulative development.
- Fee based on level of service model
- Plan proposes replacing this with a Sustainable Streets Fee, based on the vehicle miles travelled per capita (VMT) model for determining transportation impacts



Funds for projects related to all modes of transportation, including active transportation and transit, in addition to vehicle-oriented projects.

# Grants

- A range of federal, state, and regional programs have funding available to local governments to support GSI.
- Amount of funding available, eligible projects, and timelines vary by grant program.



# See it in Action: SFPUC Baker Beach Green Street Grant Project Case Study

- Baker Beach Green Street Project (total project cost approximately \$8 million)
- \$3.7 million awarded through Round 1 of Storm Water Grant Program
- Project includes rain gardens, infiltration galleries, and pervious concrete.
- Project also includes water and sewer improvements and roadway reconstruction. Construction through 2020.

**Round 2 Solicitation starts later this year. \$100 million in funding is available for multiple-benefit stormwater capture and groundwater recharge projects.**



Baker Beach Green Street Design. Image from SFPUC

# Next Steps

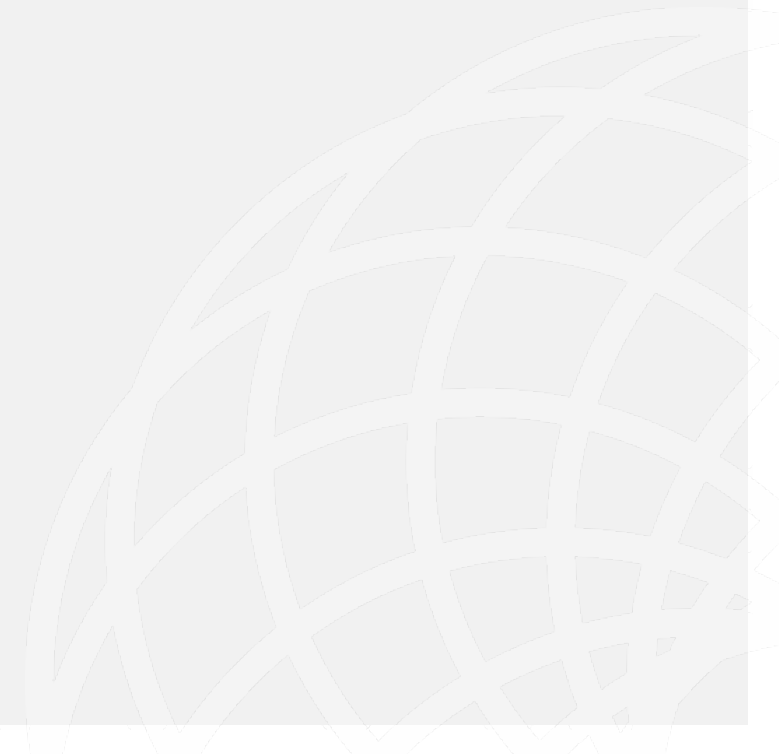
- Continue evaluation and to engage with City leaders to focus in on suite of approaches to create a sustainable funding framework
- How can the City leverage existing programs or efforts?
- What is really interesting to you?
- What would you like to learn more about?





# Thank you!

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# Green Stormwater Infrastructure Community Stewardship Pilot

September 23, 2019





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# Community Stewardship Pilot: Background



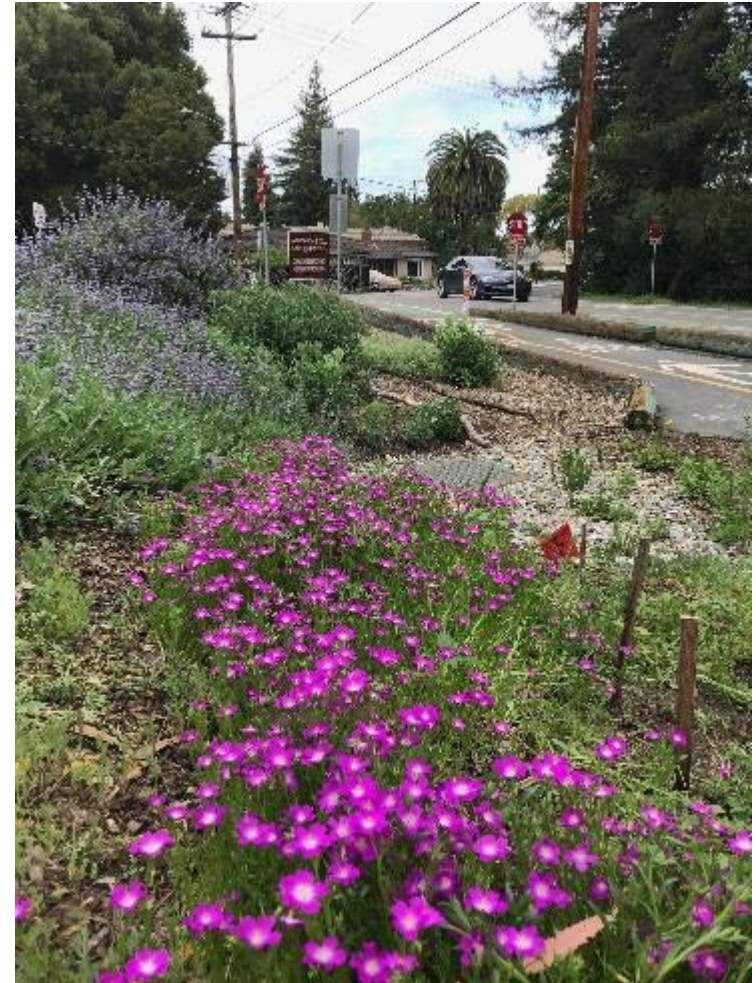
- Maintenance of GSI measures different from typical landscaping
- Focused & expert maintenance support is needed
- Limited budget
- Standards need to be established
- Future GSI measures increases demand
- Interest from residents
- Opportunity for buy-in and education

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# Community Stewardship Pilot: Objectives



- Increase community awareness and engagement
- Improve the function of bioretention measures
- Reduce demand on City maintenance crews
- Support standardization
- Increase benefits to pollinator species
- Beautify the neighborhood



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# City of Portland Green Street Stewards



- Two phases (tasks shared by city/contract landscaping staff and Stewards):
  - 2-yr establishment
  - Long-term
- Steward tasks: picking up trash, removing leaves and debris, and occasional weeding and watering
- “Adopt Me” signs
- One-on-one training
- Various resources



# City of San Francisco Rain Guardians



- Focus is trash and reporting issues
- Do(s) and Don't(s) fact sheet
- Volunteer training events
- Instructional video





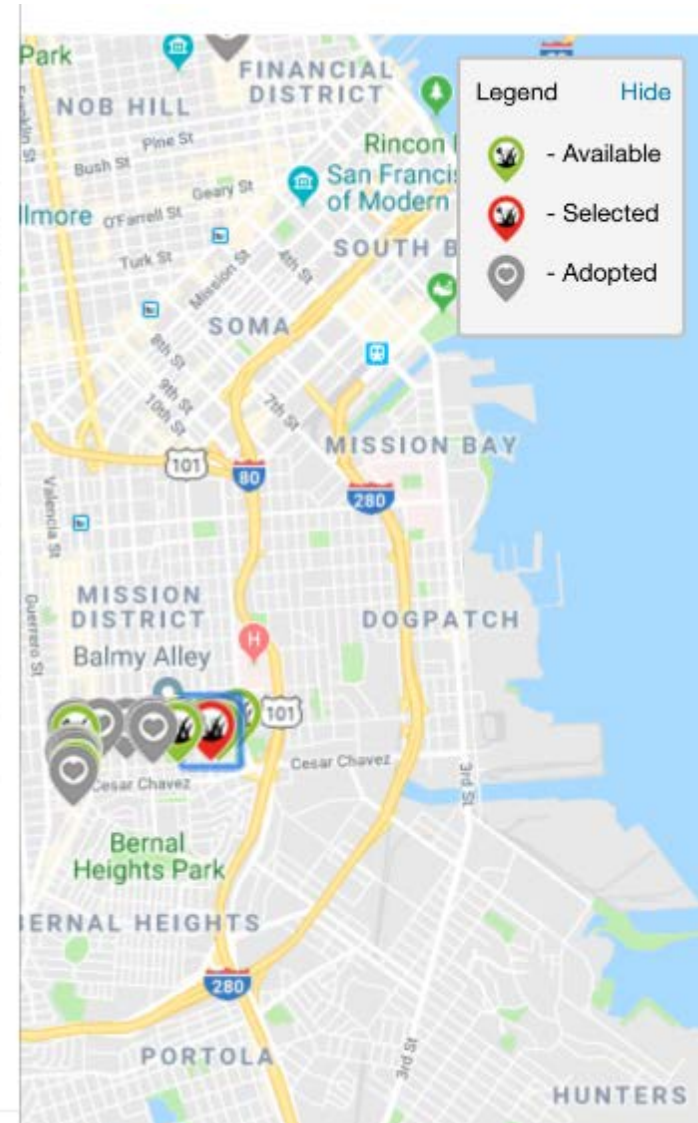
# Web Portal and Maps



**Garden Description:** This rain garden is part of the Cesar Chavez Streetscape Improvement Project, which manages 1.5 million gallons of stormwater each year in the Islais Creek Watershed.

[Learn More](#)

Adopt this Garden



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# Existing Programs: Takeaways



- Both cities are still having professional staff visit all sites quarterly
- Less work may be needed at adopted sites, but in general neither city sees the volunteer program as a cost-saving measure
- Biggest benefit is education and establishing connections in the community



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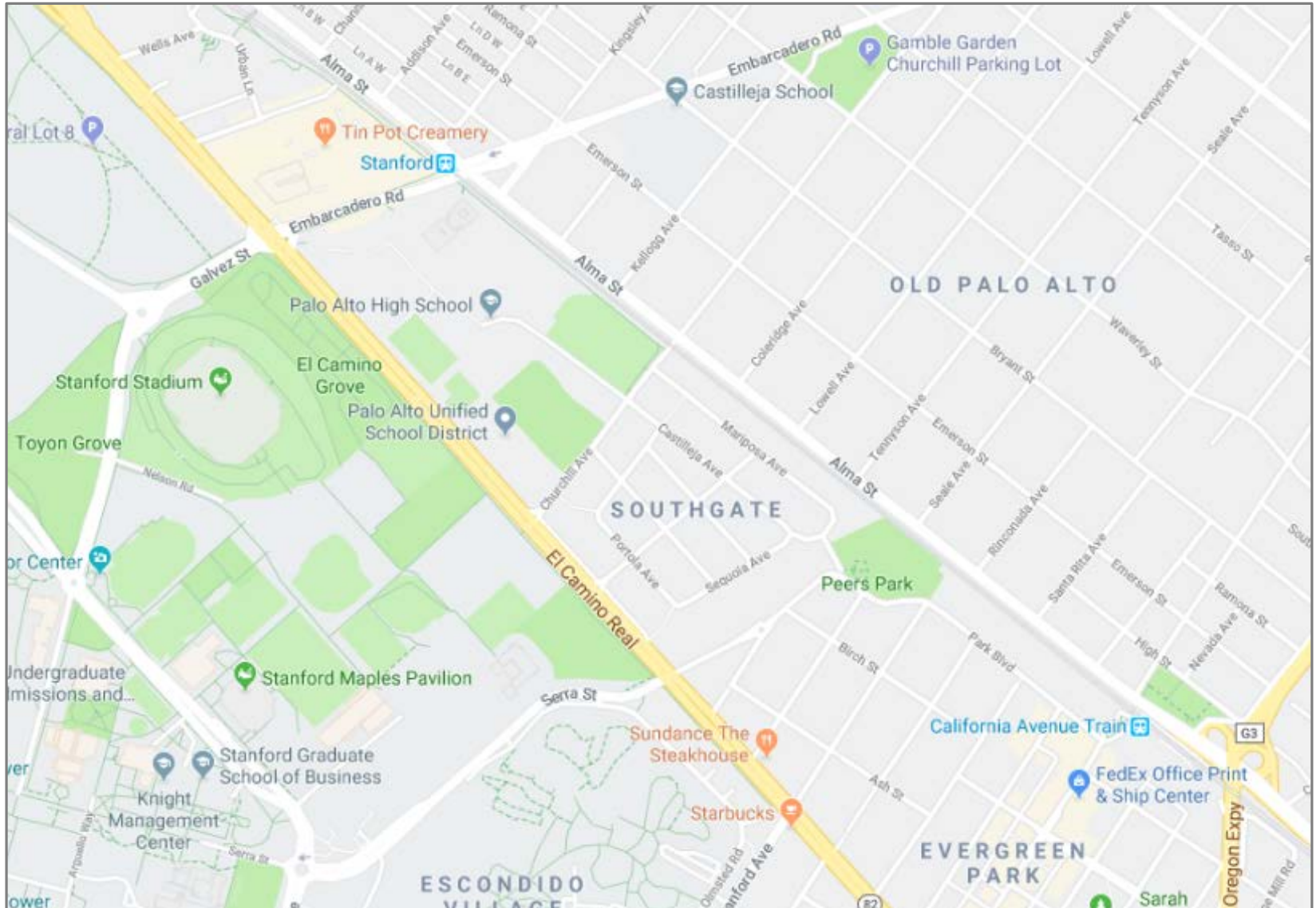
# Approach for Palo Alto Pilot



- Pilot @ one location - existing measure
- Add native and pollinator plants
- Reach out to limited number of volunteers
- Train and educate
- Monitoring/maintenance by Grassroots Ecology; support by City staff
- Assess whether to expand to other measures
- Establish program



# Southgate Neighborhood





# Installed 2014



Settling of material; lack of plants; broken irrigation system



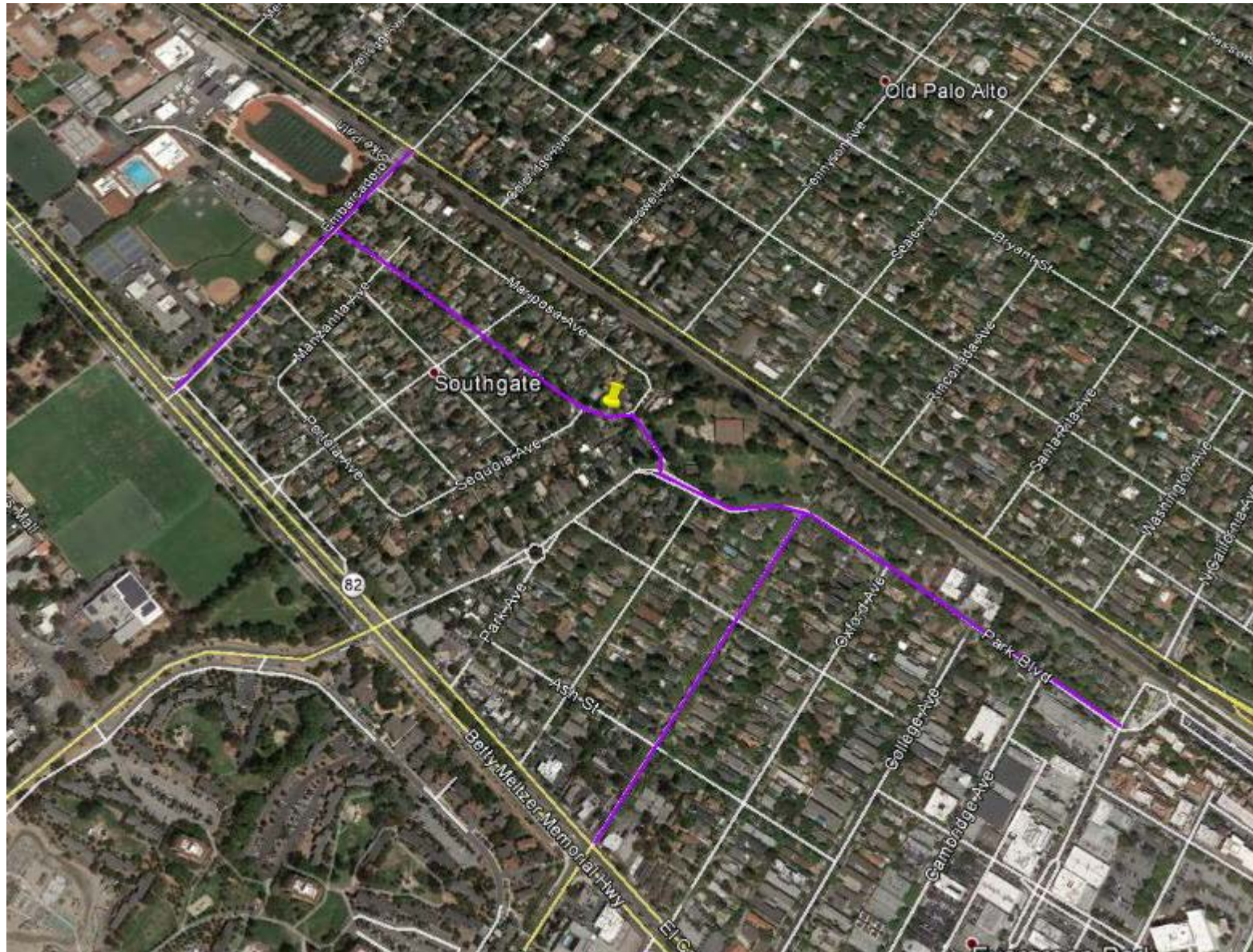
# Southgate Neighborhood



Some sections have higher vegetation success



# Proposed Pilot Location





# Proposed Pilot Corner



Bicycle/pedestrian traffic on Castilleja  
“Entry” to neighborhood



# Proposed Pilot Corner



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# Plan for Pilot



1. Prepare site with City staff
2. Recruit lead volunteer
3. Refresh pilot corner with added soil medium and native plants
  - ★ Planting & info day w/coffee: Saturday, 1/18 (MLK Day of Service weekend)
4. Regular monitoring by GrE
5. Spring cleanup
  - ★ Weeding work/edu. day (Apr-May)



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# Next Steps



- Oct: Door knock/leave info for immediate neighbors
- Oct/Nov: Contact neighborhood association (or other local groups) to announce upcoming work and to recruit lead volunteer
- Dec: Install temporary information sign in the features (what is GSI, how to get involved)
- Jan: Community info and planting day
- Apr/May: Community maintenance and education day
- Spring/Summer 2020: Assess pilot
- Fall 2020: Expand to rest of Southgate neighborhood?



# Next Meeting

**October 31, 2019 Thursday 1pm**

Rinconada Library

Embarcadero Room