Welcomes

- Introductions
Meeting Overview

- Planning Efforts in San Mateo and San Jose
- Discussion on Lessons Learned from San Mateo and San Jose
- Alternative Compliance Discussion
- GreenPlan-IT Overview & Who Should Come to Webinar
Grant Deliverables

- Develop GreenPlan-IT (prior TAC meetings on its development)
- Watershed Scale LID identification in City Planning Efforts in 3 watersheds
- Alternative Compliance next steps for Bay Area
- Outreach on GreenPlan-IT (Webinar) and Conferences (State of the Estuary)
San Jose Pilot Study

- Urban Villages
- Storm Sewer Master Plan
- MRP 2.0 & San Jose
Who’s involved?

San Jose:
- Jared Hart
- Bryan Apple
- Napp Fukuda
- Sharon Newton
- James Stettler
- Casey Hirosaki
- Suzanne Thomas

GreenPlan Team:
- Jing Wu
- Pete Kauhanen
- Jen Hunt
- Lester McKee
- Josh Bradt
- Jennifer Krebs
- Consultants
Urban Villages

- Close to transit or in PDAs
- New sustainably focused areas
- Pedestrian friendly
- Well suited for GI implementation
Urban Villages
Storm Sewer Master Plan

- Objectives of the Plan
- Constructing LID facilities to meet capacity goals
- Using Green Plan-IT tool to identify potential CIP locations
- Incorporating Green Plan-IT outputs into future planning efforts
GreenPlan-IT in San Jose

- Objective - identify feasible and cost-effective GI locations in the lower Guadalupe River watershed

- Full Toolkit applied
  - Site Locator Tool
  - Hydrologic Model
  - Optimization Tool
GreenPlan-IT Overview

GIS Siting Tool (a) → Opportunity Map

Modeling Tool (Hydrological, Water Quality, LID Simulation) (b) → Optimization Tool (c)

Optimized LID size, location and numbers → Watershed-scale GreenPlan

High Leverage Map
Site Locator Tool Application

An iterative process – run the tool, review outputs, refine with new data/ranking

First Run
- No ranking
- Decided how to utilize different layers
  - Ranking vs Knockout
- Rough location layers
  - Wide sidewalks
  - On street parking
  - Public parcels etc.
- Development of the Site Locator Tool

Second Run
- The Site Locator Tool process was streamlined
- Included ranking module
- Worked with the city to determine how to utilize local layers
  - WebEx meetings

Final Run
- Adjusted Ranking table
  - Removed some layers
  - Added Urban Villages as an opportunity
- Base Analysis as an opportunity
- Better GI locations
  - Side Walk Planters
- Differentiate between unranked and neutral rank
- Added in additional knockouts (Salt Ponds, infrastructure)
First Site Locator Tool Run

- No Ranking
- Rough location layers
- Wide sidewalks
- On street parking
- Public parcels etc.

San Jose LID Possible Locations Knockout Analysis Overlay

San Jose Vegetated Swale Site Locator Tool Output
Second Site Locator Tool Run

San Jose Potential Bioretention Locations Ranked
Final Site Locator Tool Run

San Jose Output

Ranked Possible Bioretention Locations

- 1: Higher Ranked Location
- 0.5: Neutrally Ranked Location
- 0: Lower Ranked Location
- -1: Unranked Location

0 0.075 0.15 0.3 Miles
Modeling Tool Application

- Identify effective locations for GI implementation that could have the greatest potential leverage for reducing runoff volume
- Establish baseline condition
Modeling Tool Application

- Quantify flow and water quality reduction from various GI scenarios from 150 sub-basins

![Graph showing flow and water quality reduction with LID versus no LID.](image)

- [Graph showing peak and volume reduction with 0, 1, and 3 Biocells.](image)
Optimization Tool Application

- 10s of thousands of possible sites identified by Site Locator Tool ....
- Imagine if a City had to find these without an automated process!
- but what are the most cost-effective GI combinations among them for achieving certain reduction goal?
- ..and at what price?
Cost–effectiveness Curve

Cost (Million $) vs. Flow Reduction (%)

- Generation: 0, 25, 50, 75, 100, 125, 150, 175, 200

Point of interest: Cost (Million $) = 200, Flow Reduction (%) = 30
San Jose 30% Runoff Reduction
Optimal Infiltration Trench Locations

- Potential Infiltration Trench Locations
- Optimization Focus Area
- Number of Infiltration Trench Identified

Map created on April 06, 2015
SCVURPPP & San Jose – Lessons Learned

- By San Jose stepping up as a pilot partner they are now well positioned for developing the GI watershed master plan per the next MRP
  - Iterative interactive development
  - Best to apply all the tool kit not just locator tool
  - Stormdrain master plan – blueprint for the urban village
MRP 2.0 Requirements

- Prepare a Green Infrastructure Plan, including:
  - Mechanism to prioritize and map areas for potential projects over various timeframes (e.g., GreenPlanIT tool)
  - Outputs: prioritization criteria, maps, lists of projects
  - Projections for amount of impervious surface to be retrofitted over 5, 10, 25, and 50-yr horizons
  - Process for tracking and mapping completed projects
  - Guidelines, design details, and standard specs
  - Planning documents linked to GI Plan
  - Work plan to complete prioritized projects
  - Evaluation of prioritized project funding mechanisms
MRP 2.0 & San Jose

- GreenPlan Bay Area products:
  - GreenPlanIT tool to prioritize and map areas
  - Outputs: prioritization criteria, maps, lists of projects
- Guidelines, design details, specs
  - Design/construction drawings for current grant-funded green street projects
- Regional products
- Planning documents linked to GI Plan:
  - Storm Drain Master Plan
  - Urban Village Plans?
  - Urban Forestry Plan?
  - Complete Streets Plan?
City of San Mateo
Who’s involved

- Ken Chin, San Mateo Public Works Project Manager
- Jocelyn Walker, San Mateo Public Works Assistant Engineer
- Matt Fabry, resident and C/CAG
- Jessica Alba, Nelson\Nygaard
- Pete Kauhanen, SFEI GreenPlan-IT Developer
- Jen Hunt, SFEI Project Manager
- Lester McKee, SFEI Project Lead
- Josh Bradt, SFEP Environmental Planner
- Jennifer Krebs, SFEP Project Manager
Sustainable Streets Plan

- Caltrans Community Based Transportation Planning Grant
- February 2013 – February 2015
Policy 3.D.1 – Manage stormwater runoff using green infrastructure from 10% of roadway segments citywide and from 20% of roadway segments within the Downtown and PDAs within the City by the year 2050.
GreenPlan-IT Site Locator Tool in San Mateo

- San Mateo: initial partner
- Iterative process to improve both Tool and City outputs
- Worked with city staff and the TAC (municipalities and BASMAA) to identify planning needs of the site locator tool
First Site Locator Tool Run

- Preliminary ranking
- Preliminary GI location layers
  - Side street parking
  - Wide sidewalks
  - Wide planters
  - Pedestrian trials
  - Parks
  - Parking Lots
Final Site Locator Run

- Better potential GI location layers
- Incorporated street dimensions from the Sustainable Streets Plan for each street type
- Adjusted Ranking table
- Buffer distances
- Weighting
San Mateo Lessons Learned

- First Sustainable Streets plan in Bay Area
- Links Green Streets with Complete Streets
- What can others learn from San Mateo
Sustainable Streets Plan & Additional Next Steps

- Impact Fees and funding issues
- Adapting to MRP 2.0
Break

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Break Out Discussion

- What did San Jose or San Mateo do that would work in your city/county?
- What aspects of the planning effort wouldn’t work in your city/county?
- Given what you know about MRP 2.0, what would you need as outputs from GreenPlan-IT to make it work in your city/county?
Alternative Compliance

- SFEP has small amount of money to explore what would help cities/counties develop programs
- Water Board is more flexible under MRP 2.0 than MRP 1
- Question for group: what would help you?
Key Issues

- Do GreenPlan Outputs in City Plans qualify as starting points for local programs? (identification of receiving sites)
- Roles for cities, counties, others to get programs off the ground
- Fee Calculation – design, construction, maintenance (include all?)
- Reporting
- Other ????
# Roles

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Webinar

- June 11th Morning at SFEI
- Why attend
- Who should attend
With This Tool We Can Green The Future
Thanks

- Josh Bradt  510-622-5048  jbradt@waterboards.ca.gov

- Jennifer Krebs  510-622-2315  jkrebs@waterboards.ca.gov