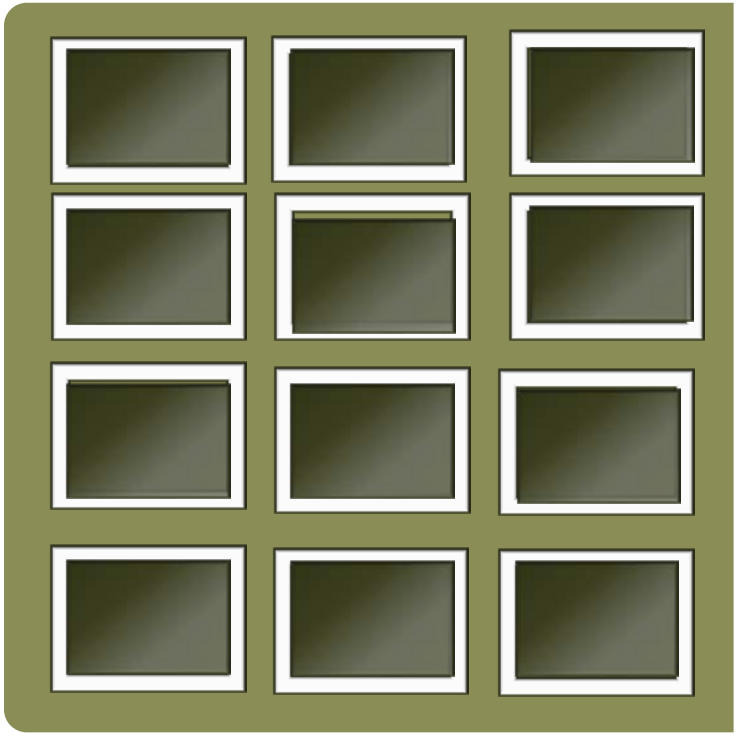
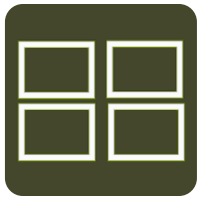


GreenPlan Bay Area TAC

April 29, 2015

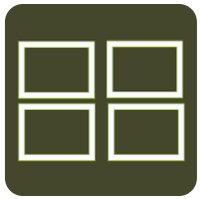
Welcomes

- Introductions



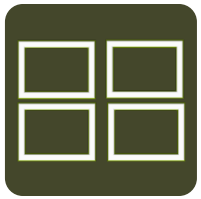
Meeting Overview

- 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:

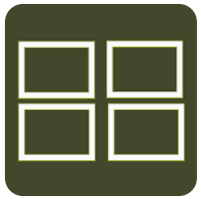
- Jared Hart
- Bryan Apple
- Napp Fukuda
- Sharon Newton
- James Stettler
- Casey Hirosaki
- Suzanne Thomas

GreenPlan Team:

- Jing Wu
- Pete Kauhanen
- Jen Hunt
- Lester McKee
- Josh Bradt
- Jennifer Krebs
- Consultants

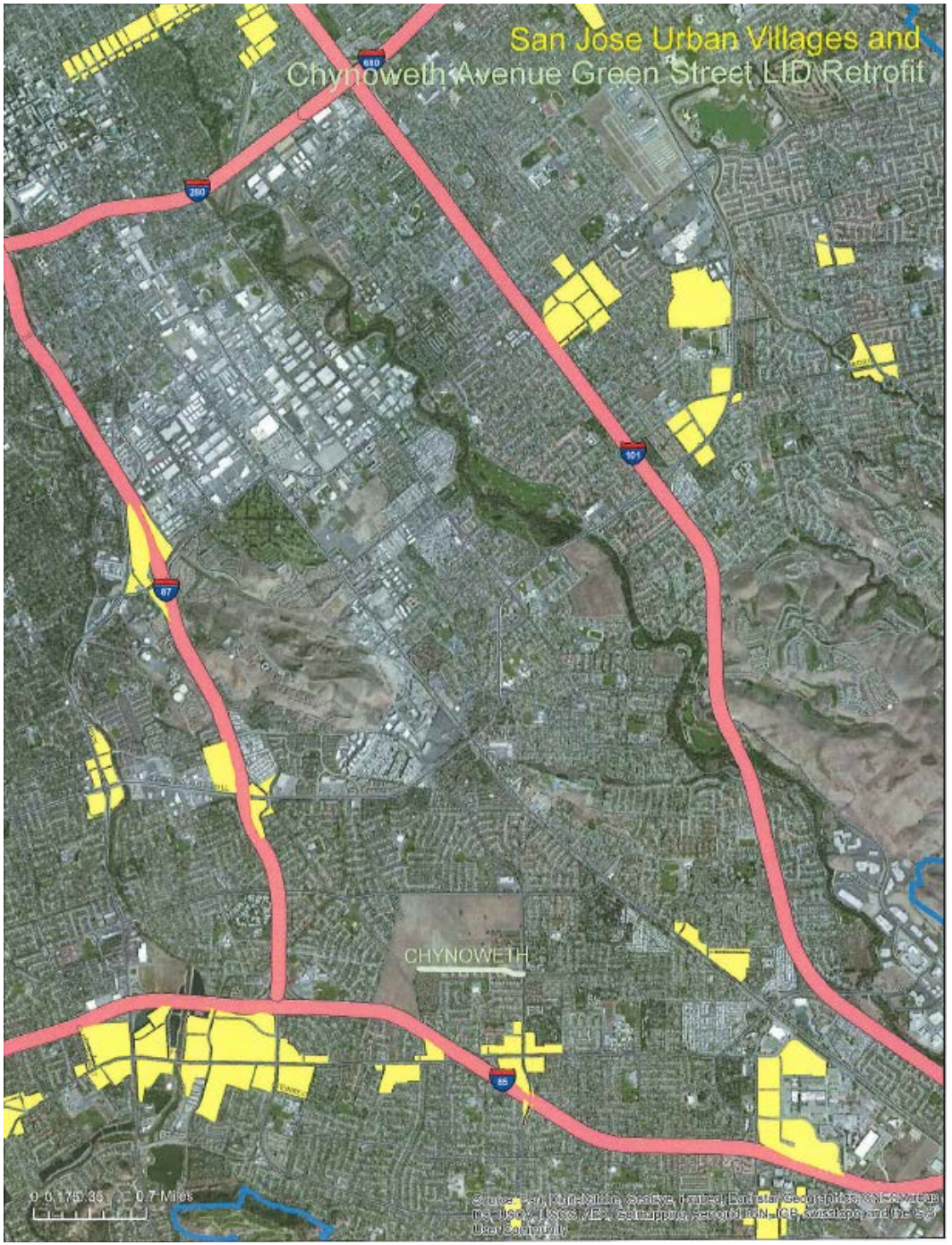
Urban Villages

- Close to transit or in PDAs
- New sustainably focused areas
- Pedestrian friendly
- Well suited for GI implementation



Urban Villages

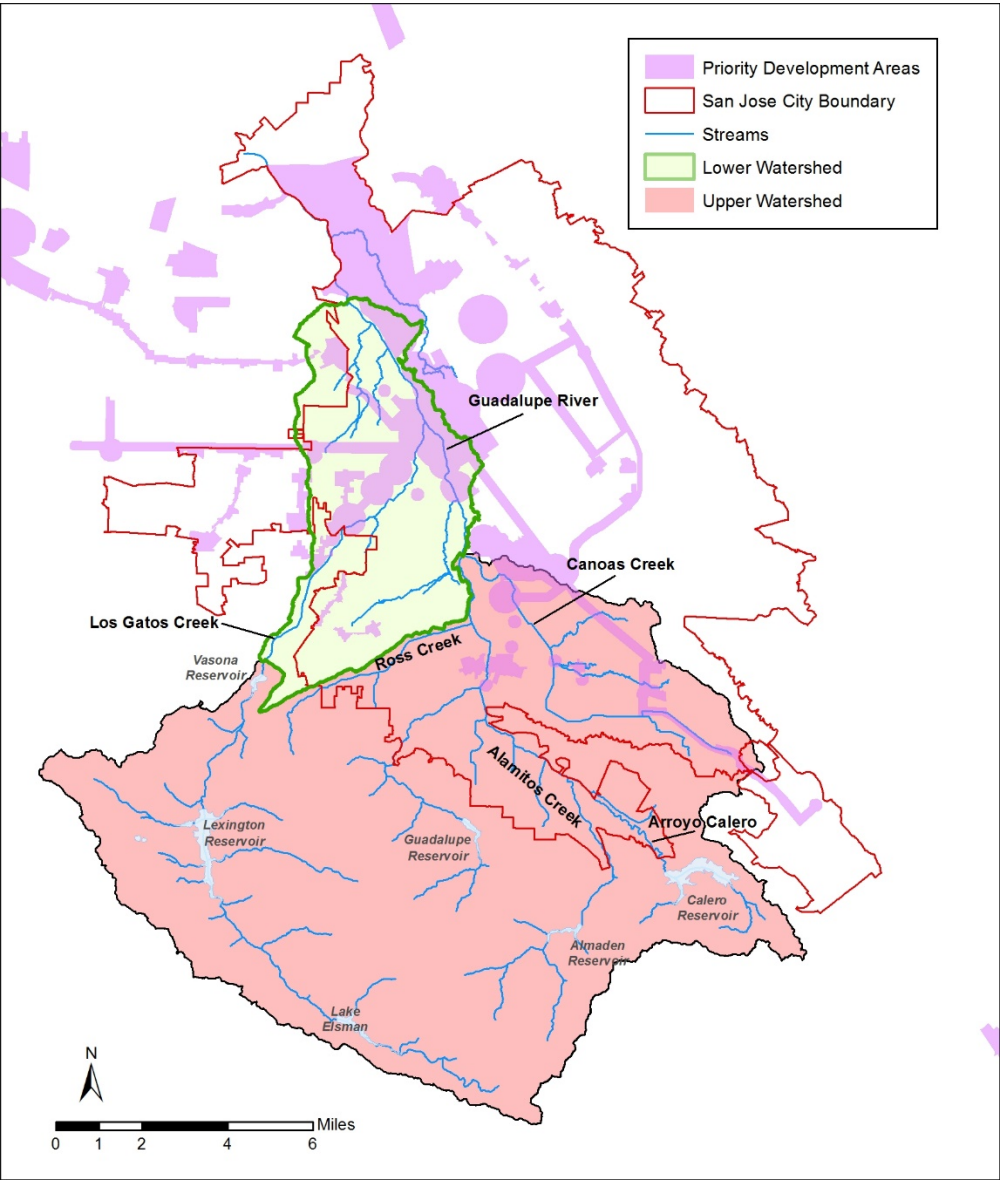
8



Storm Sewer Master Plan

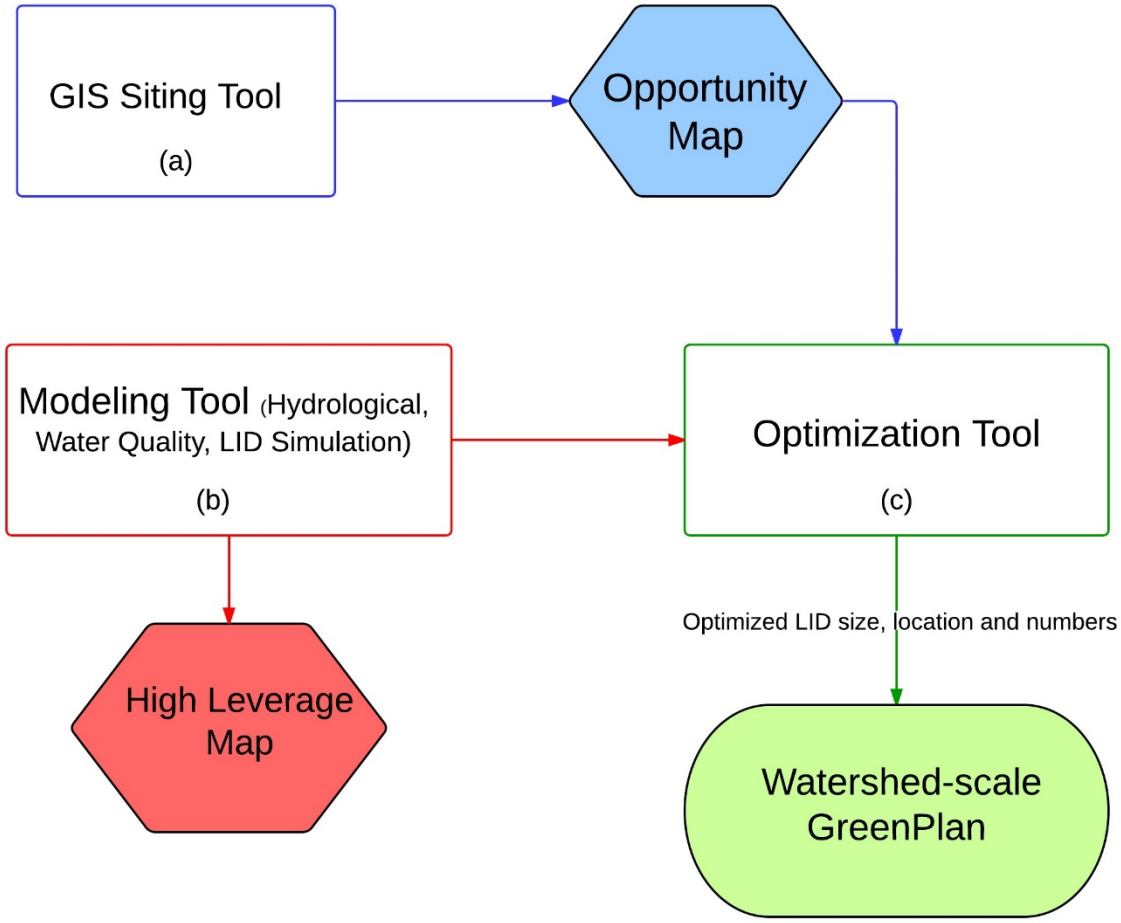
- Objectives of the Plan
- Constructing LID facilities to meet capacity goals
- Using Green Plan-IT tool to identify potential CIP locations
- Incorporating Green Plan-IT outputs into future planning efforts

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



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

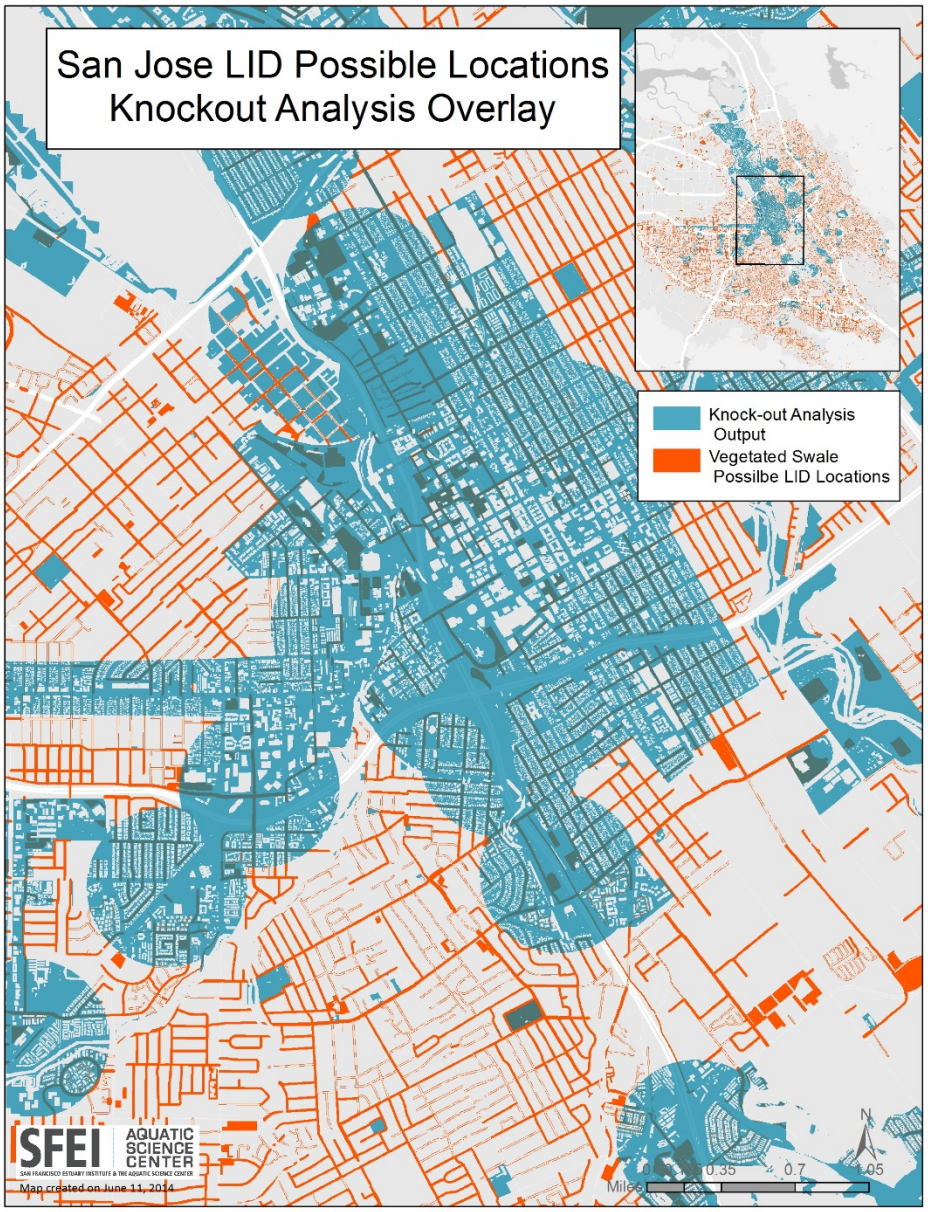
Second Run

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

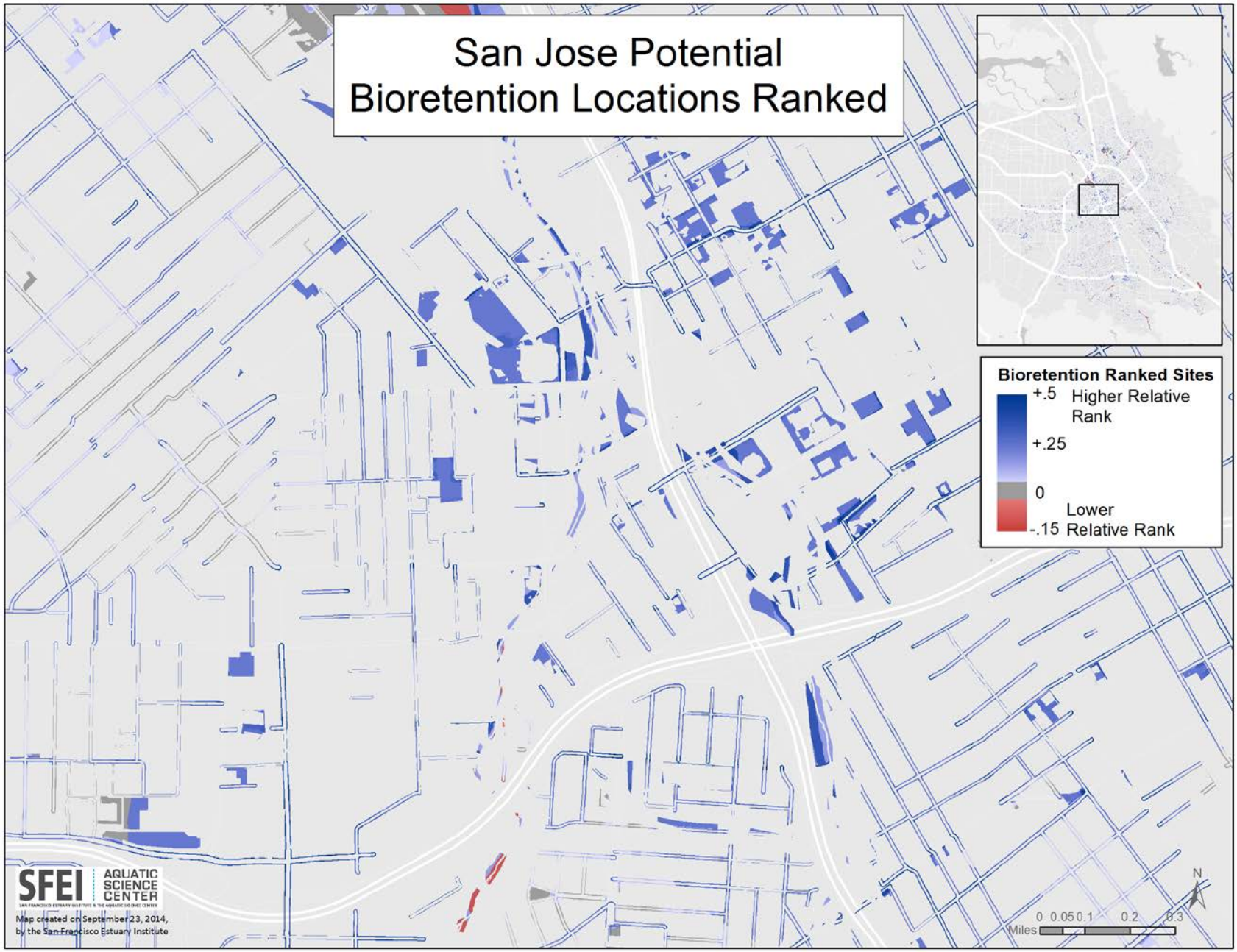
Final Run

- 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)

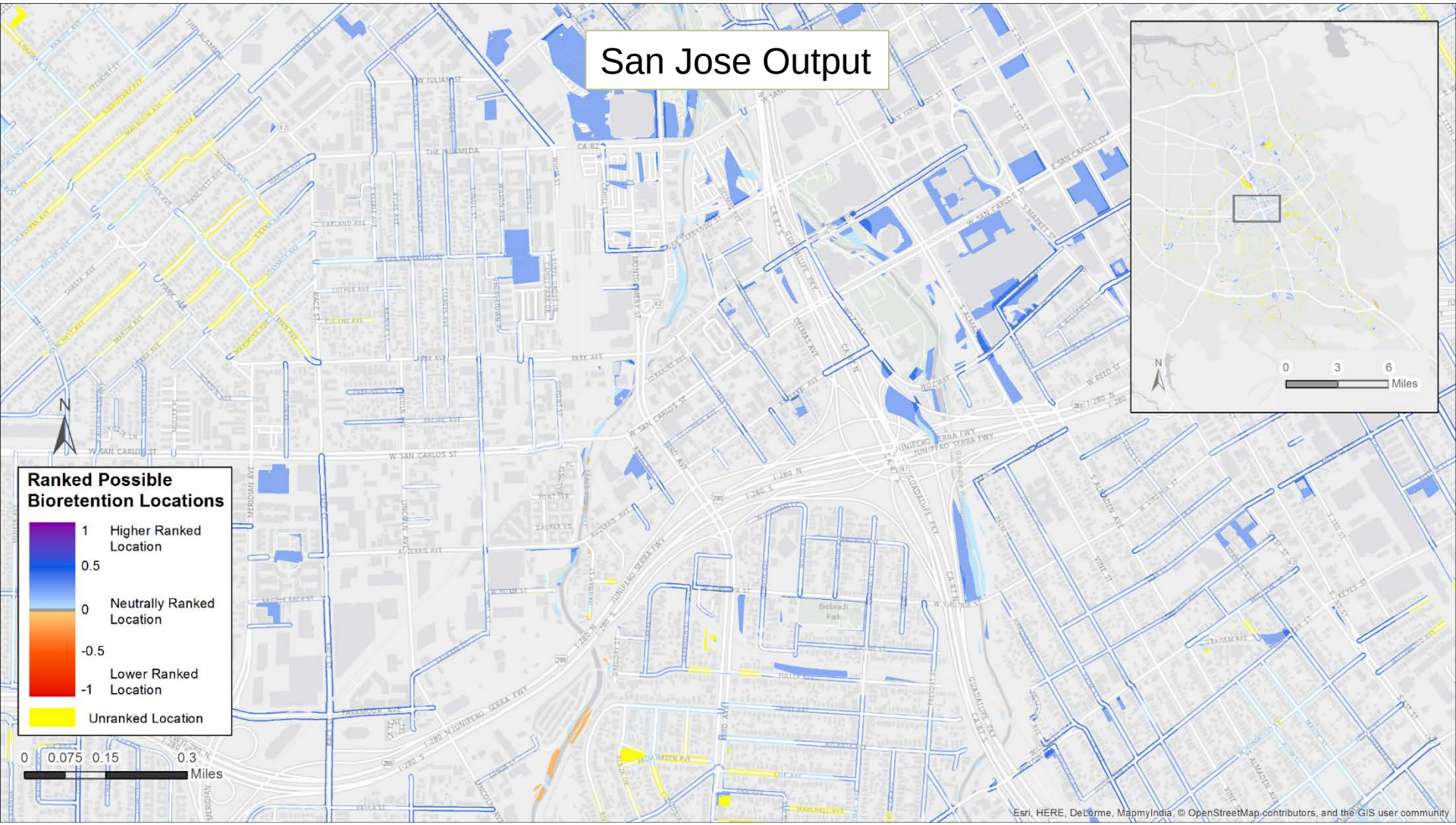
First Site Locator Tool Run

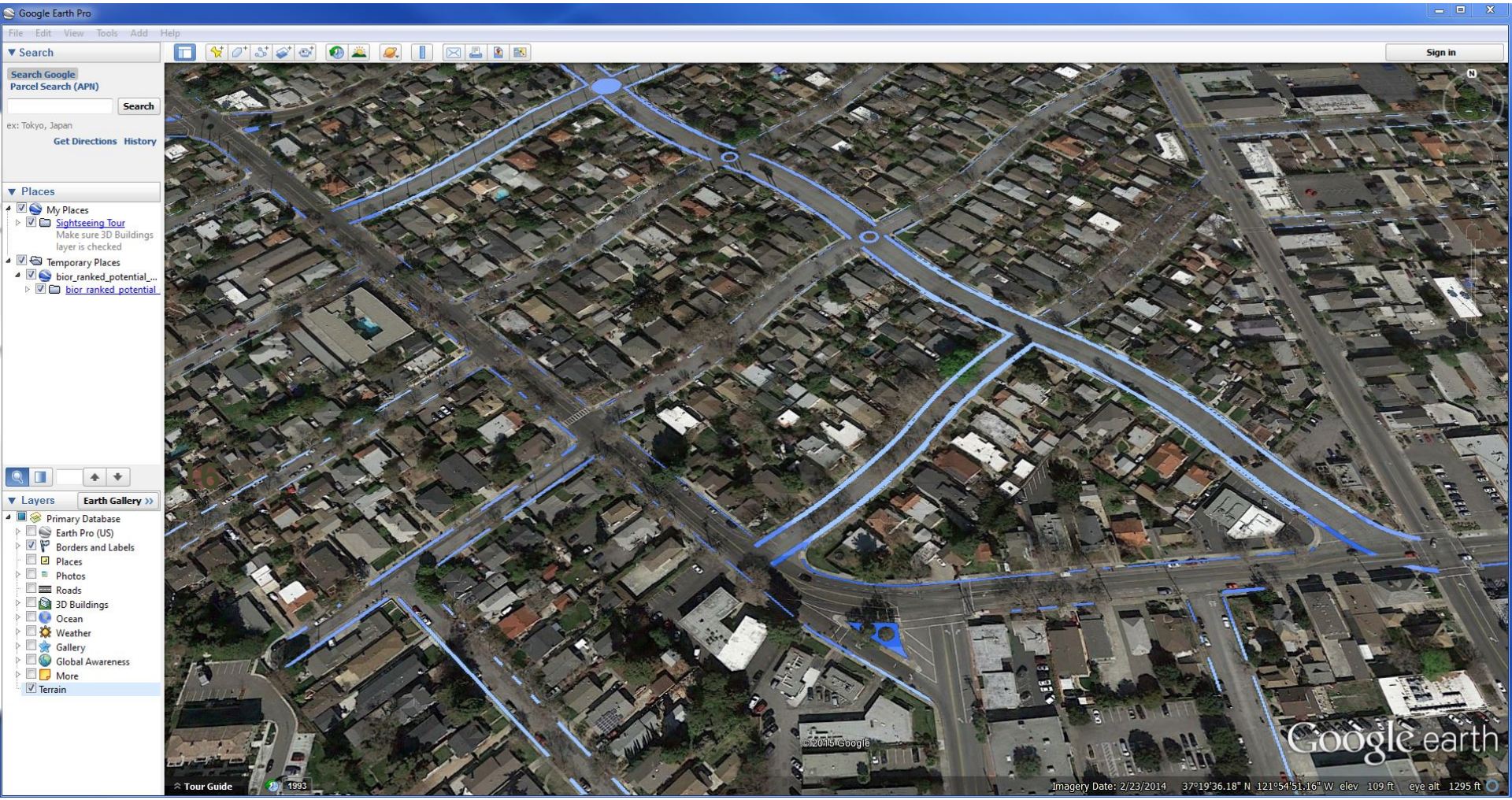


Second Site Locator Tool Run

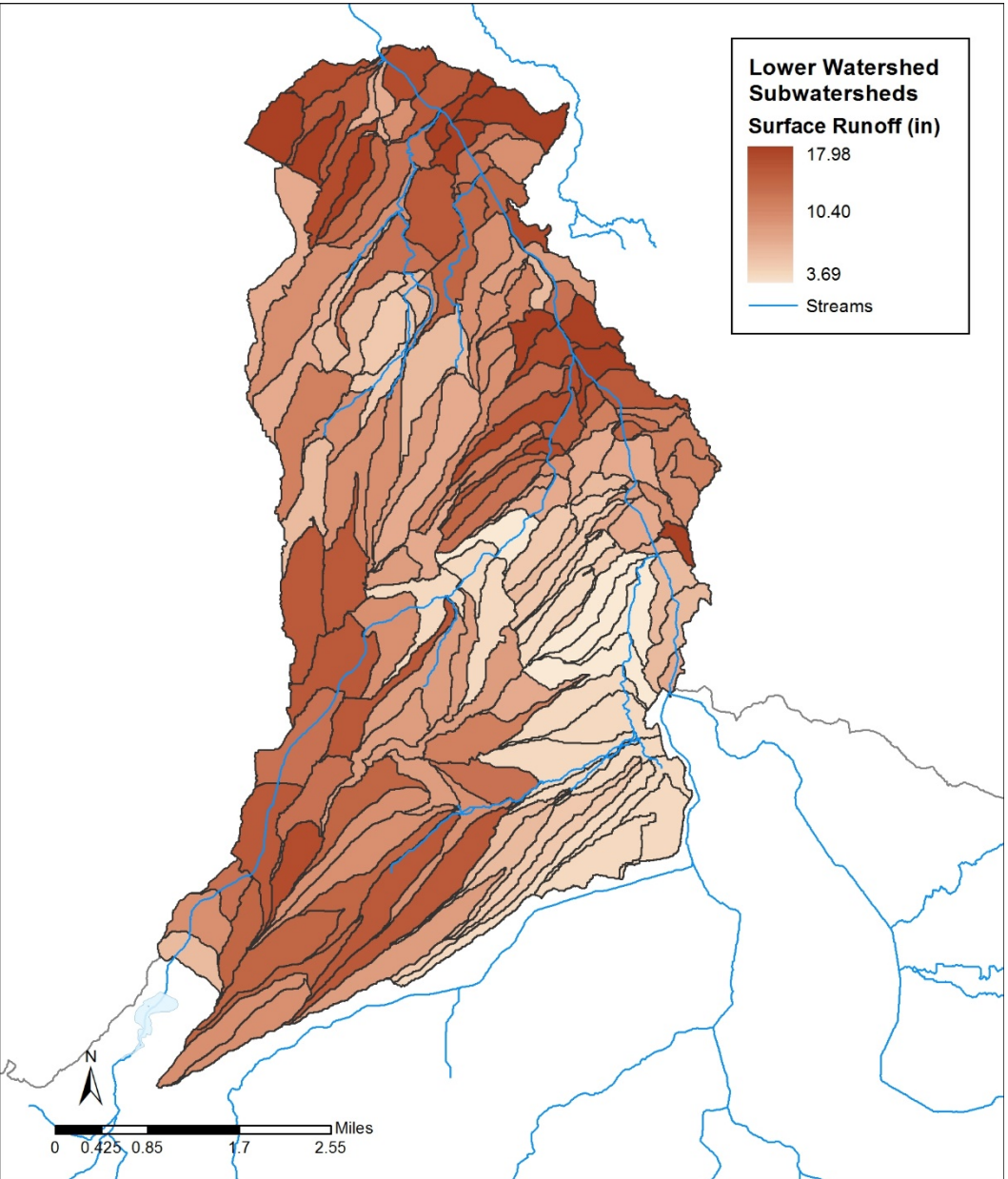


Final Site Locator Tool Run




Google Earth Pro
File Edit View Tools Add Help
Search
Search Google
Parcel Search (APN)
Search
ex: Tokyo, Japan
Get Directions History
Places
My Places
Sightseeing Tour
Make sure 3D Buildings layer is checked
Temporary Places
bior_ranked_potential_...
bior_ranked_potential
Layers
Earth Gallery
Primary Database
Earth Pro (US)
Borders and Labels
Places
Photos
Roads
3D Buildings
Ocean
Weather
Gallery
Global Awareness
More
Terrain
Sign in
©2015 Google
Google earth
Tour Guide
1993
Imagery Date: 2/23/2014 37°19'36.18" N 121°54'51.16" W elev 109 ft eye alt 1295 ft

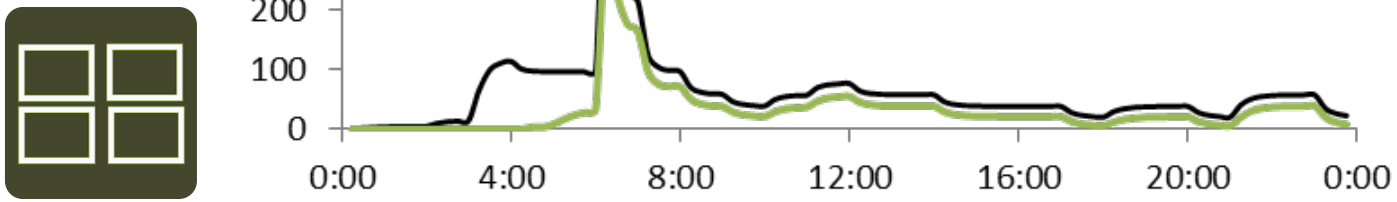
Modeling Tool Application

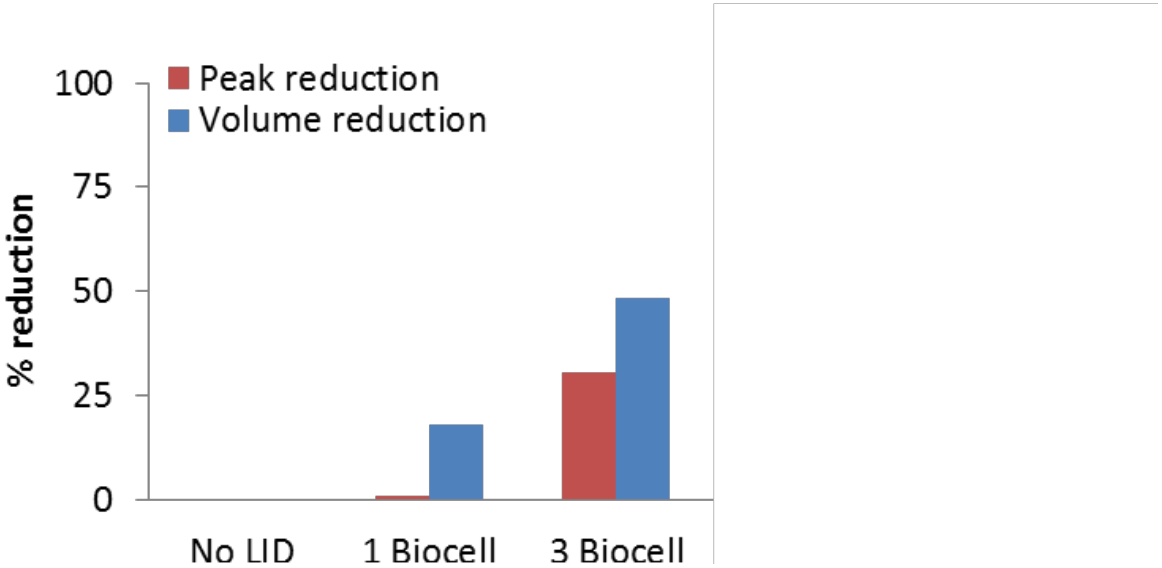


- Identify effective locations for GI implementation that could have the greatest potential leverage for reducing runoff volume
- Establish baseline condition

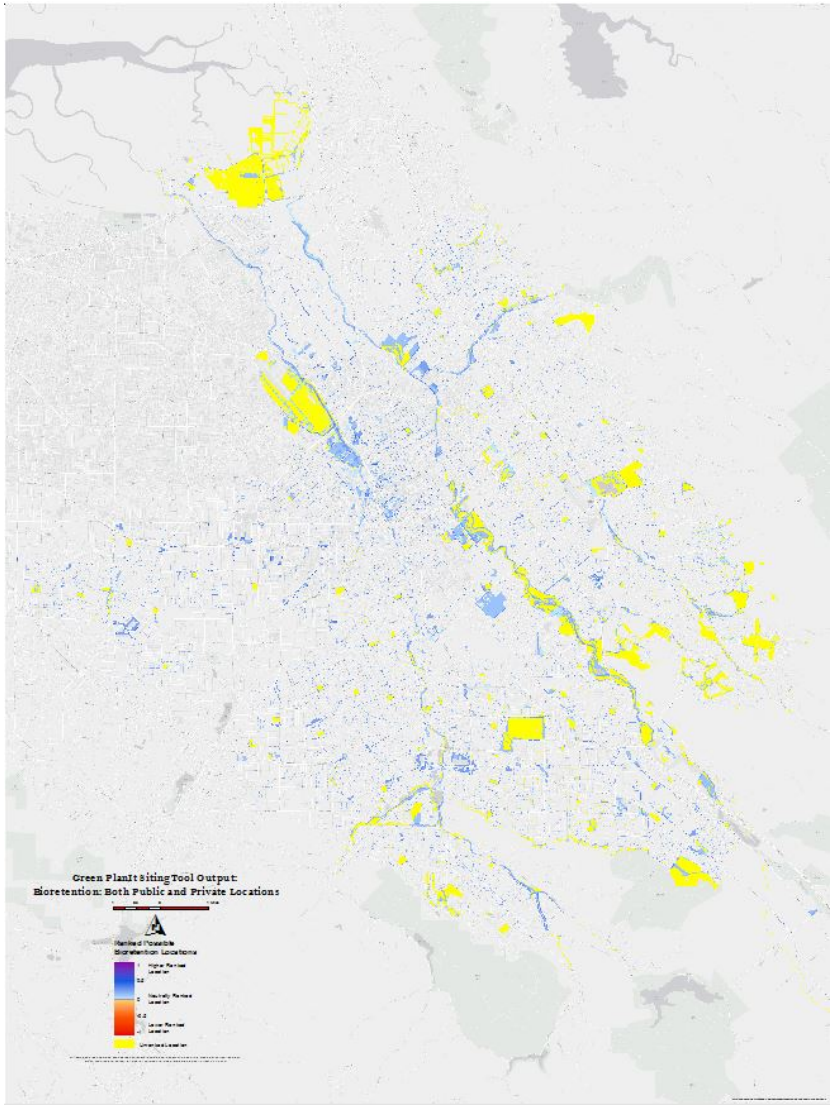
Modeling Tool Application

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



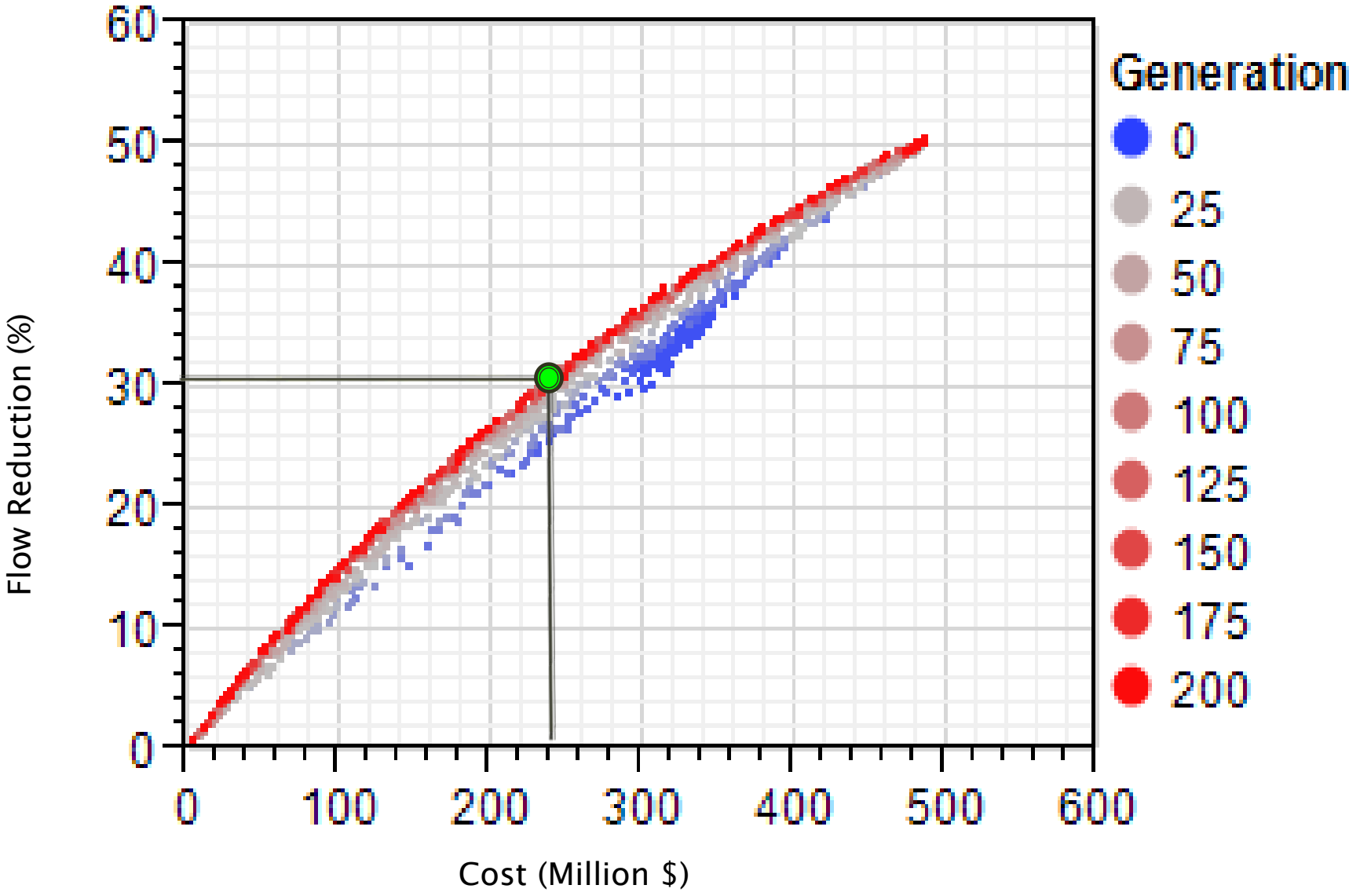


Optimization Tool Application

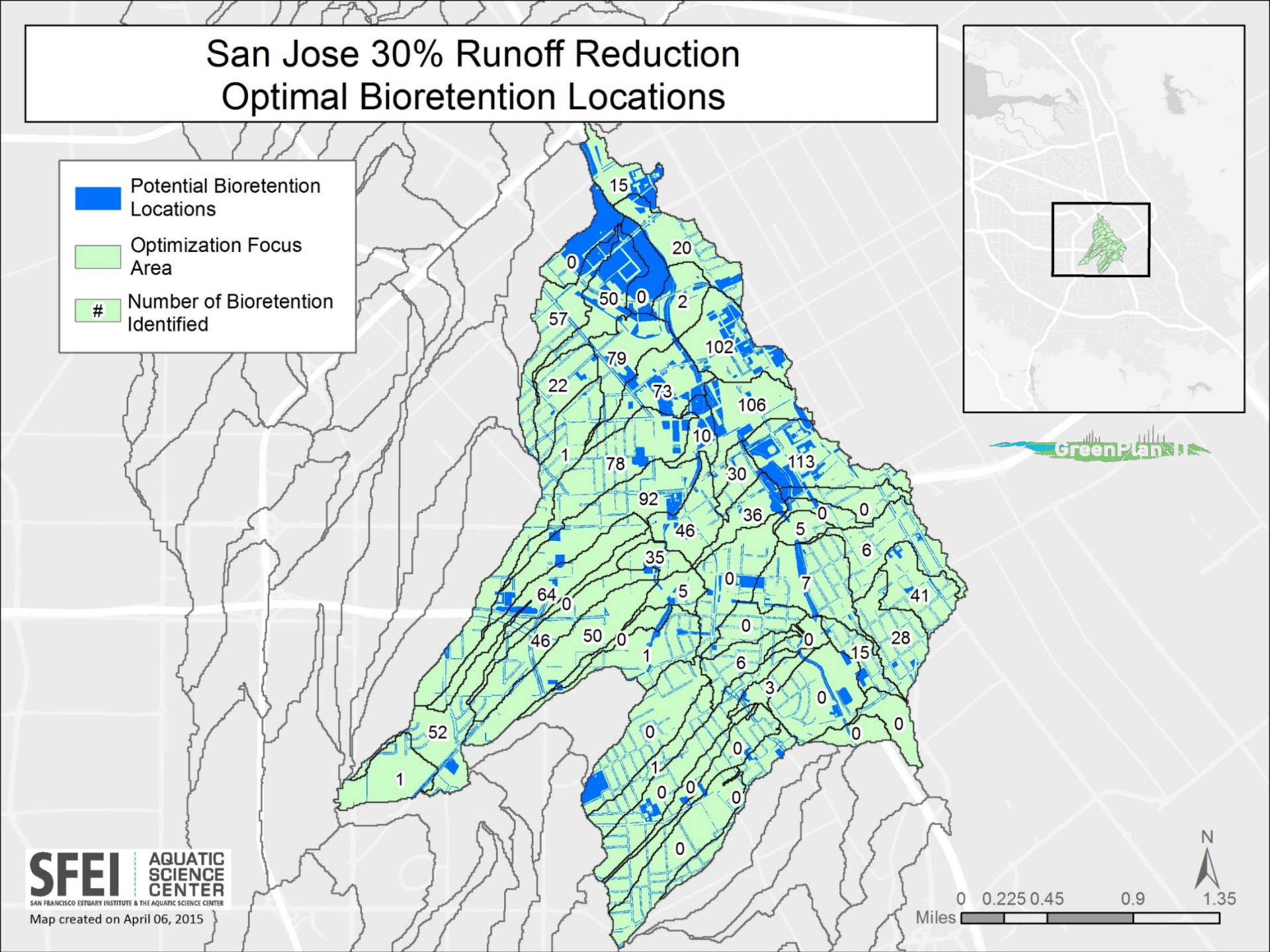


- 10s of thousands of possible sites identified by Site Locator Tool ….
- Imagine if a City had to find these without an automated process!
- but what are the most cost-effective GI combinations among them for achieving certain reduction goal?
- ..and at what price?

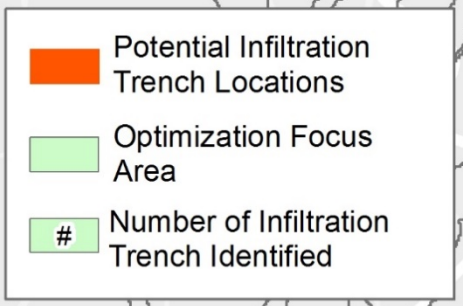
Cost–effectiveness Curve



San Jose 30% Runoff Reduction
Optimal Bioretention Locations



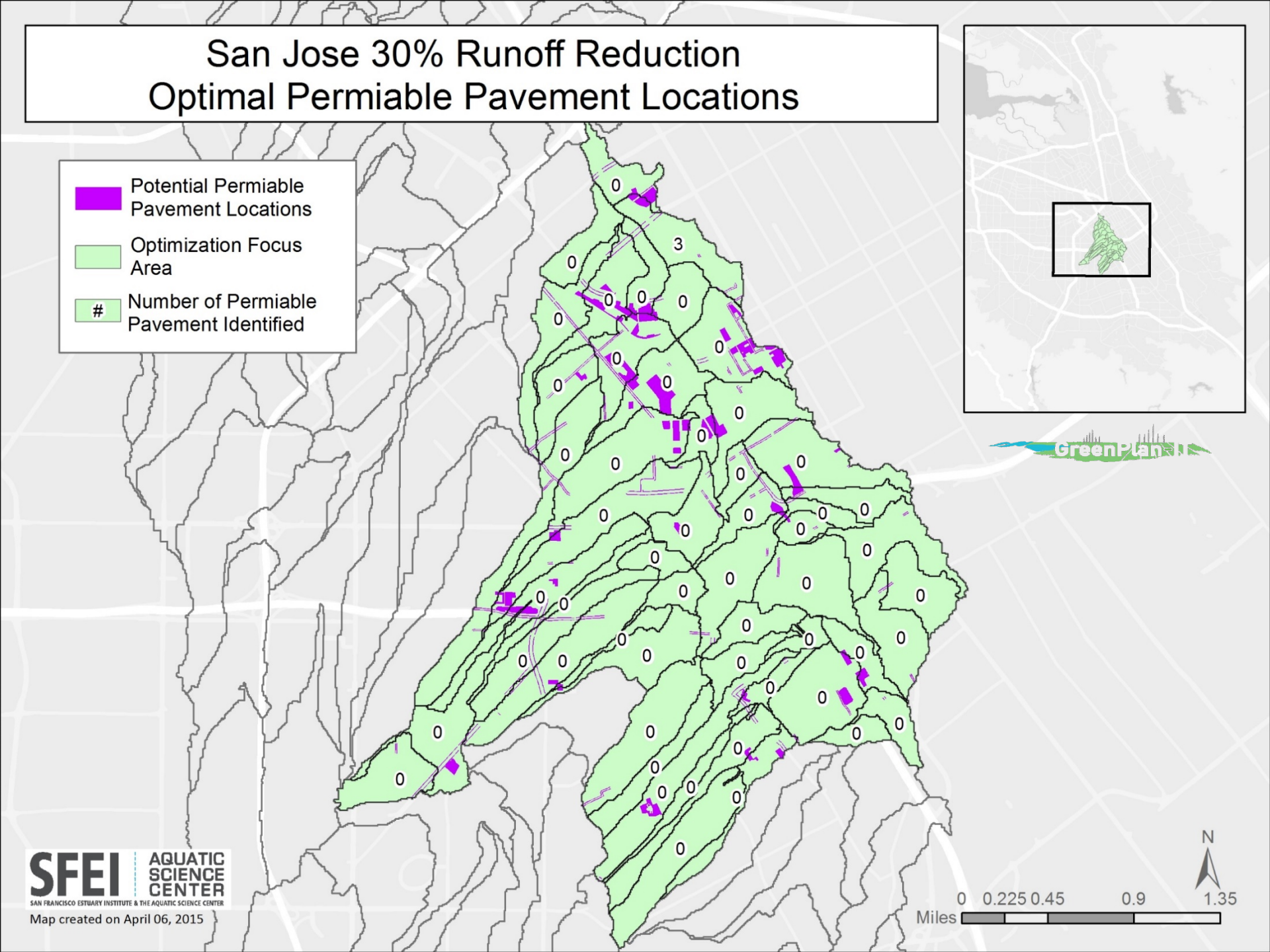
San Jose 30% Runoff Reduction
Optimal Infiltration Trench Locations



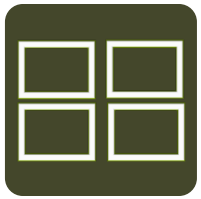
GreenPlan

6
10
28
5
51
34
0
129
84
75
137
91
2
84
161
160
16
245
3
11
2
113
0
20
17
24
5
109
14
17
20
40
136
91
0
47
0
28
2
0
0
4
16
1
8
1
0
4
1
0
0
0
4
0
SFEI AQUATIC SCIENCE CENTER
SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER
Map created on April 06, 2015
N
0 0.225 0.45 0.9 1.35
Miles

San Jose 30% Runoff Reduction
Optimal Permiable Pavement Locations



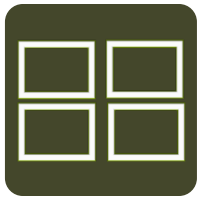
SCVURPPP & San Jose – Lessons Learned



- 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?

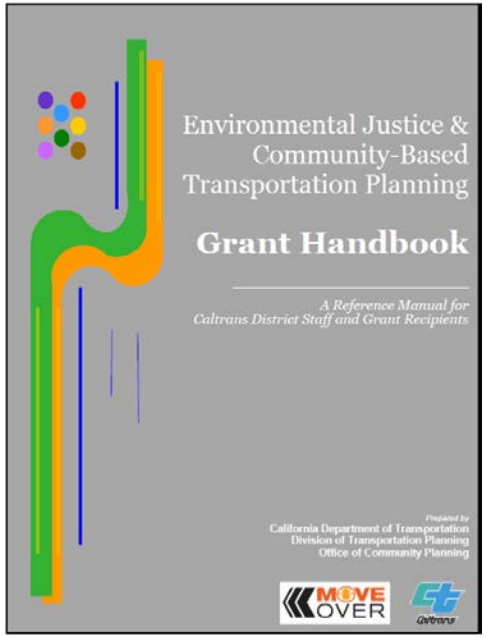
San Jose Q & A

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



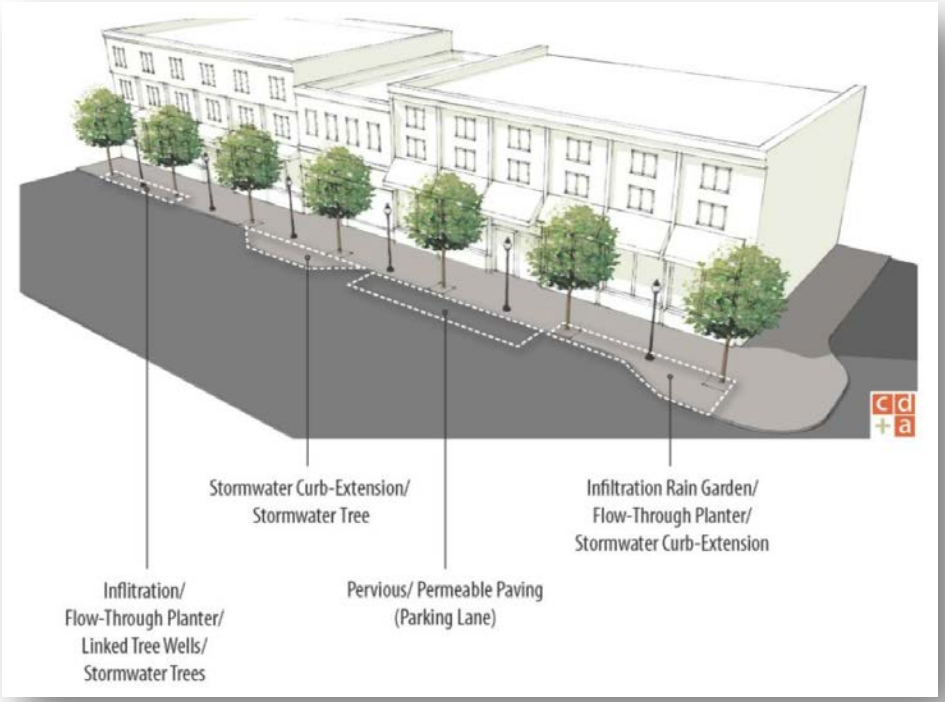
- Caltrans Community Based Transportation Planning Grant
- February 2013 – February 2015

Project Title	Sustainable Streets Plan	Grantee	City of San Mateo

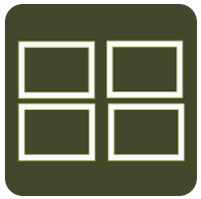
		FY 2012/13	Fiscal Year 2013/14											FY 2014/15											
Task Number		F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	Deliverable
1	***Project Initiation***																										
1.1	Grant Kick-Off Meeting																										Meeting Minutes
1.2	Project Kick-Off Meeting																										Meeting Minutes
1.3	Finalize Scope of Work, Project Schedule, and Coordination																										Final Scope of Work, Project Schdedule, and Coordination Schedule
1.4	City Council - Authorization of Professional Service Contract and Approval of TAC and CAC members																										Procurement Procedures consistent with 49 CFR, Part 18.36 and Local Assistance Procedures Manual, Chapter 10 and Signed Contract
2	***Pre-Plan Review and Analysis***																										
2.1	Best Practice Review																										Memo on Best Practices
2.2	Review of City Code, Policies, Standard Drawings, Design Guidelines and City Signage																										Memo on Recommended Revisions
2.3	Complete Streets Benefits Analysis - Safety, Economics, Public Health, and Sustainability																										Memo on Benefits Analysis
2.4	Review and Analysis of the City's Street Classification System																										Memo on Existing Capacity and Usage
2.5	Review and Analysis of the City's Street Widths																										Memo on Optimal Street Widths
2.6	Level of Service and Multi-Modal Analysis with Animation																										Intersection Animation
3	***On-going Public Participation***																										
3.1	Community Workshops (4)																										Workshop Notes
3.2	Stakeholder Meetings																										Meeting Minutes
3.3	Taste and Talk Series (10-12)																										Series Notes
3.4	Community Survey																										Survey and Results
3.5	Project Website & Social Media																										Project Website and Social Media
3.6	Sustainable Streets Public Education Campaign with Outreach Materials																										Education and Outreach Materials
3.7	Walking Tour of Challenging Intersections																										Tour Notes
4	***Sustainable Streets Plan***																										
4.1	Vision, Goals and Objectives																										Vision, Goals and Objectives
4.2	Existing Conditions and Policies																										Review of Existing Conditions
4.3	Needs Analysis																										Needs Analysis
4.4	Recommendations																										All Recommendations, including but not limited to, Street Typology/Prioritization, Focus Areas/Zones, Green Streets Network, Citywide Transportation Demand Management Program
4.5	Streetscape Concepts																										Streetscape Concept Illustrations
4.6	Design Guidelines																										Design Guidelines
4.7	Implementation Plan																										Implementation Plan, including but not limited to, a Project and Program Lists, Performance Measures, Incorporation of Elements into the Private Development Process, and Project Sheets
4.8	Funding																										List and Description of Potential Funding Sources for Design, Engineering, Construction and Maintenance
5	***Final Plan Preparation and Hearings***																										
5.1	Draft Plan and Response to Staff Review																										Draft Plan
5.2	Draft Plan Presentations (3 presentations to City review bodies)																										Presentations
5.3	Final Draft Plan and Response to Comments																										Final Draft Plan
5.4	Council Presentation/Adoption																										City Council Adoption Resolution
5.5	Final Plan																										Final Sustainable Streets Plan
5.6	Reproduction																										Copies of Final Plan

Sustainable Streets Plan

- 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.

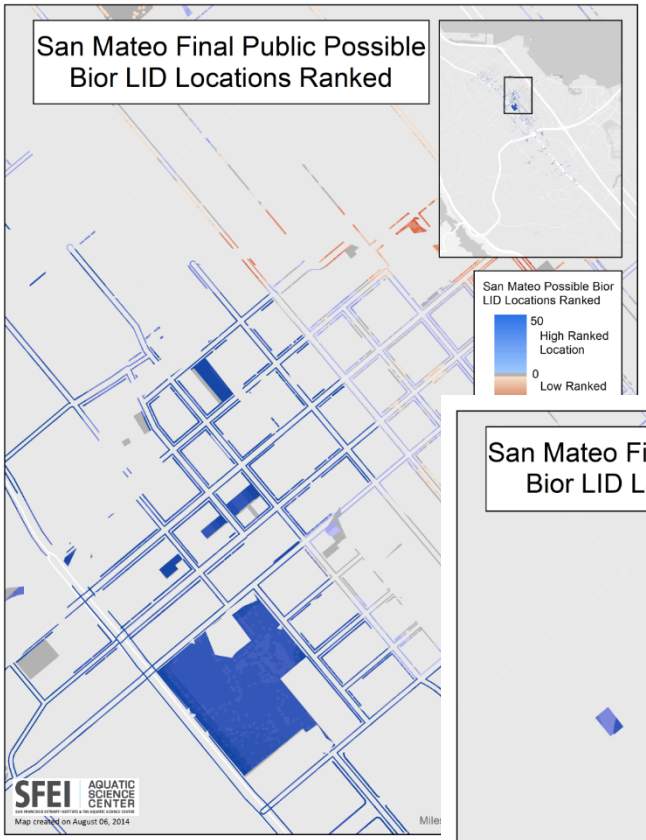


GreenPlan-IT Site Locator Tool in San Mateo



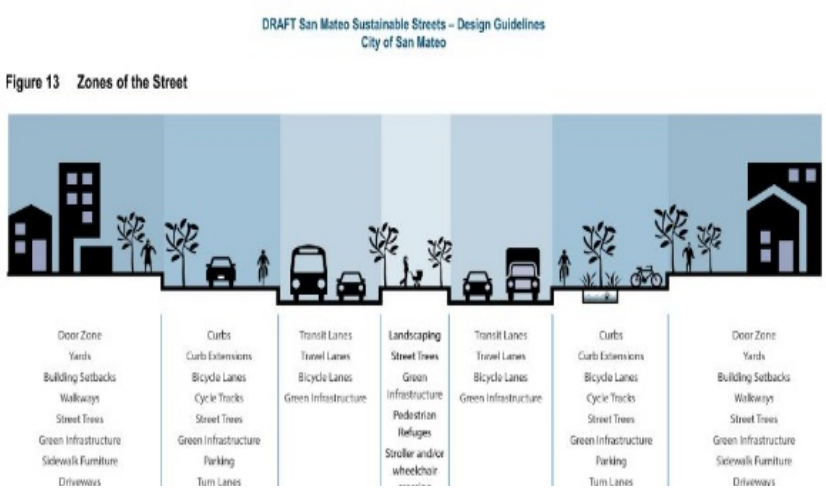
- San Mateo: initial partner
- Iterative process to improve both Tool and City outputs
- Worked with city staff and the TAC (municipalities and BASMAA) to identify planning needs of the site locator tool

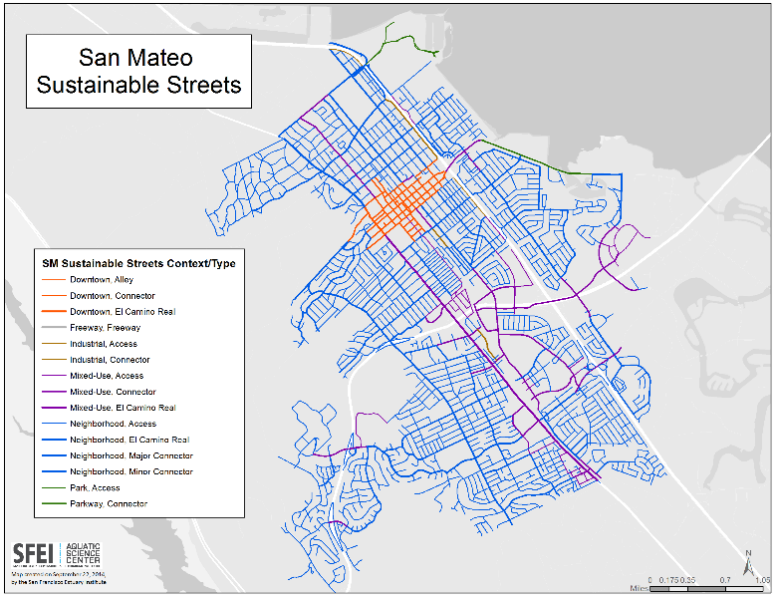
First Site Locator Tool Run



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

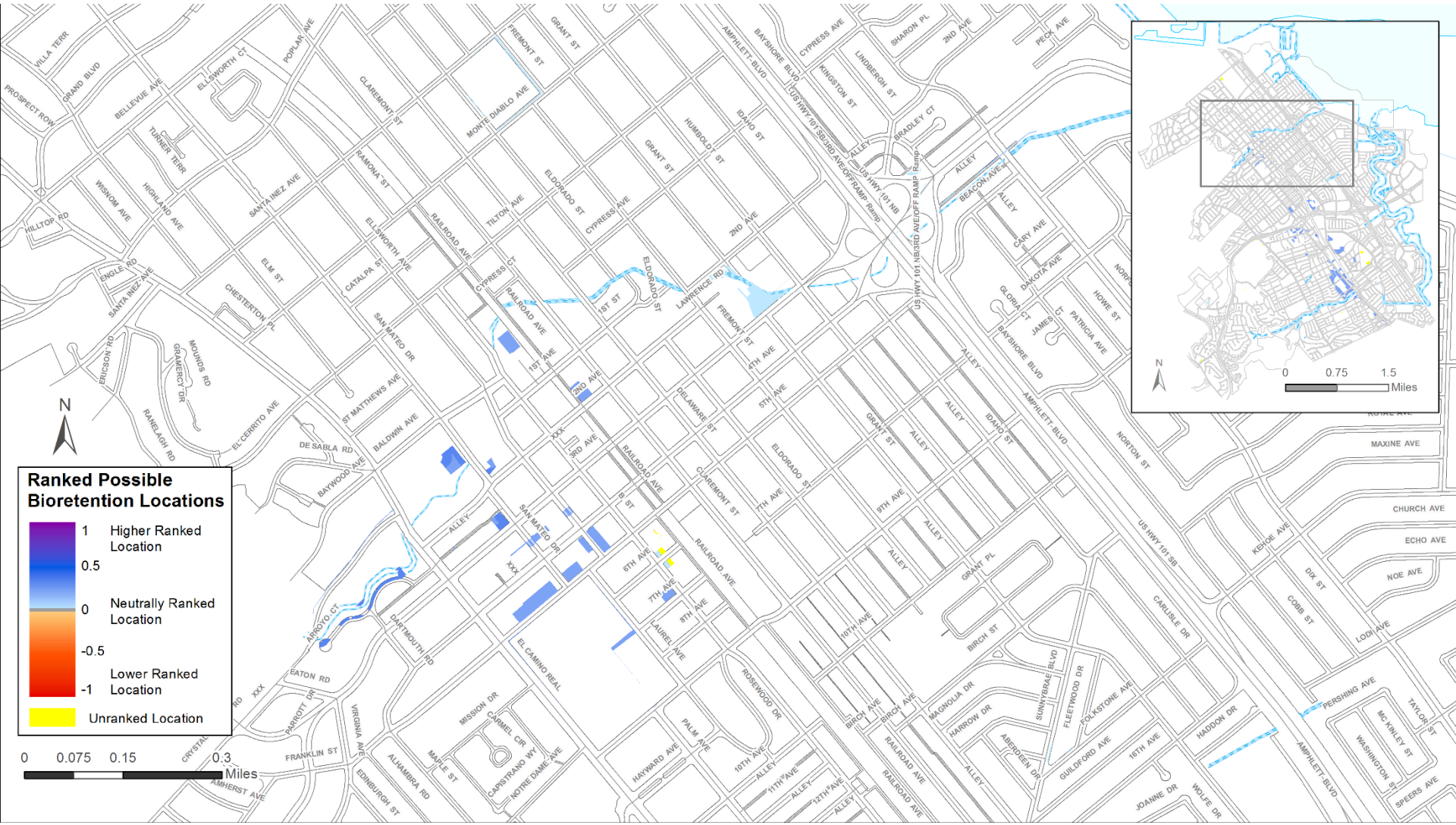
Final Site Locator Run



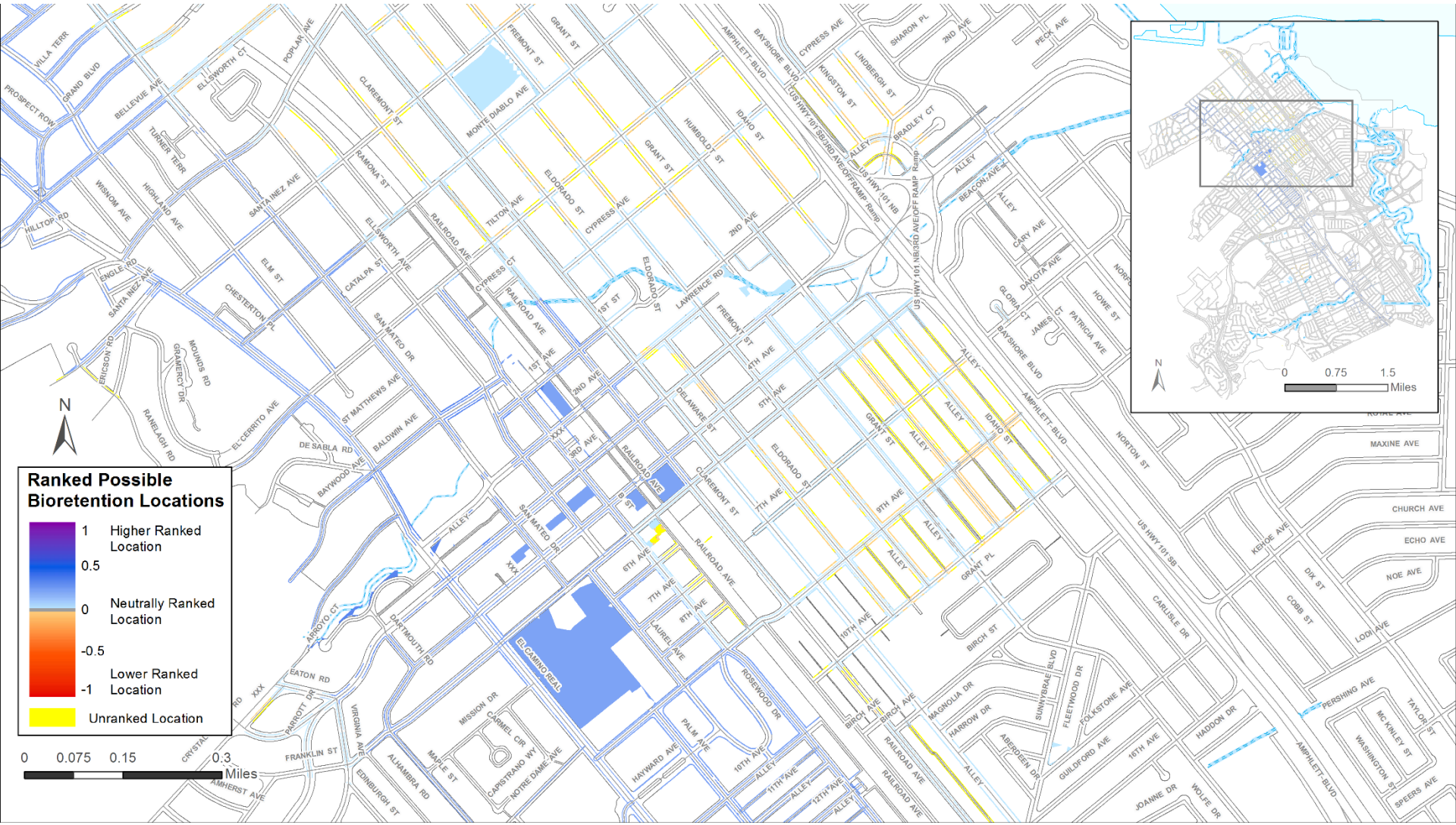


- Better potential GI location layers
  - Incorporated street dimensions from the Sustainable Streets Plan for each street type
- Adjusted Ranking table
  - Buffer distances
  - Weighting

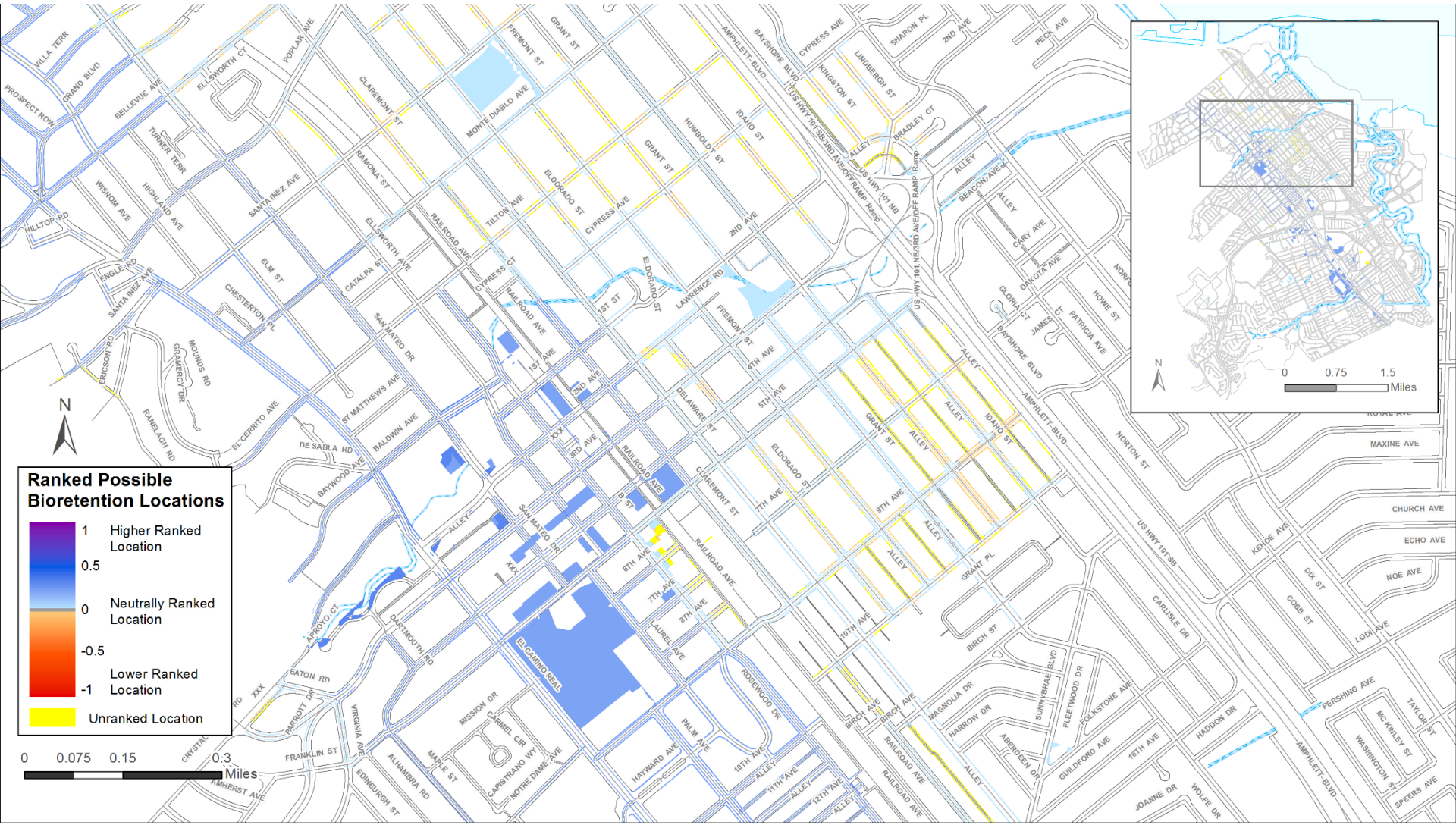
Private Output



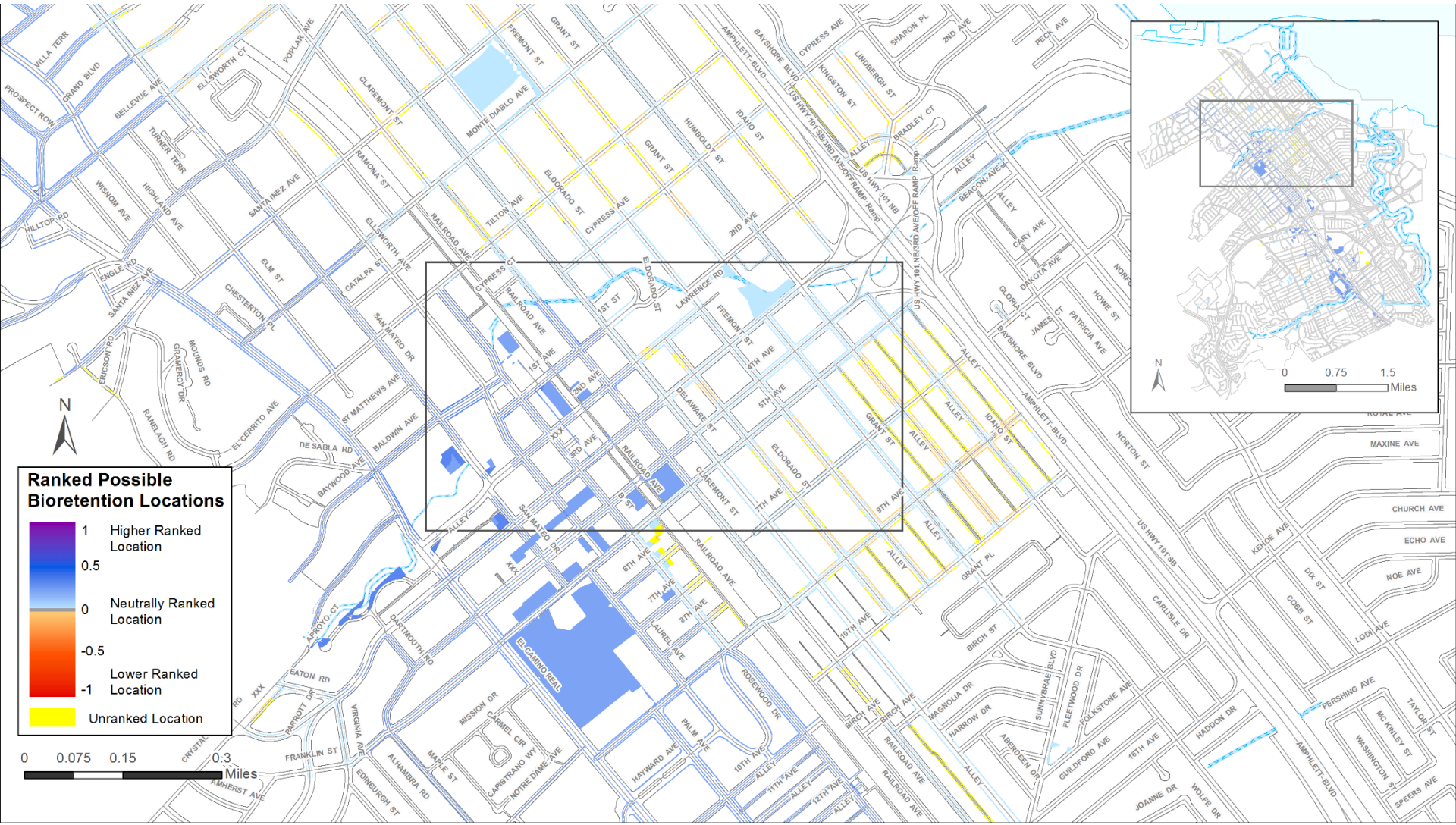
Public Output

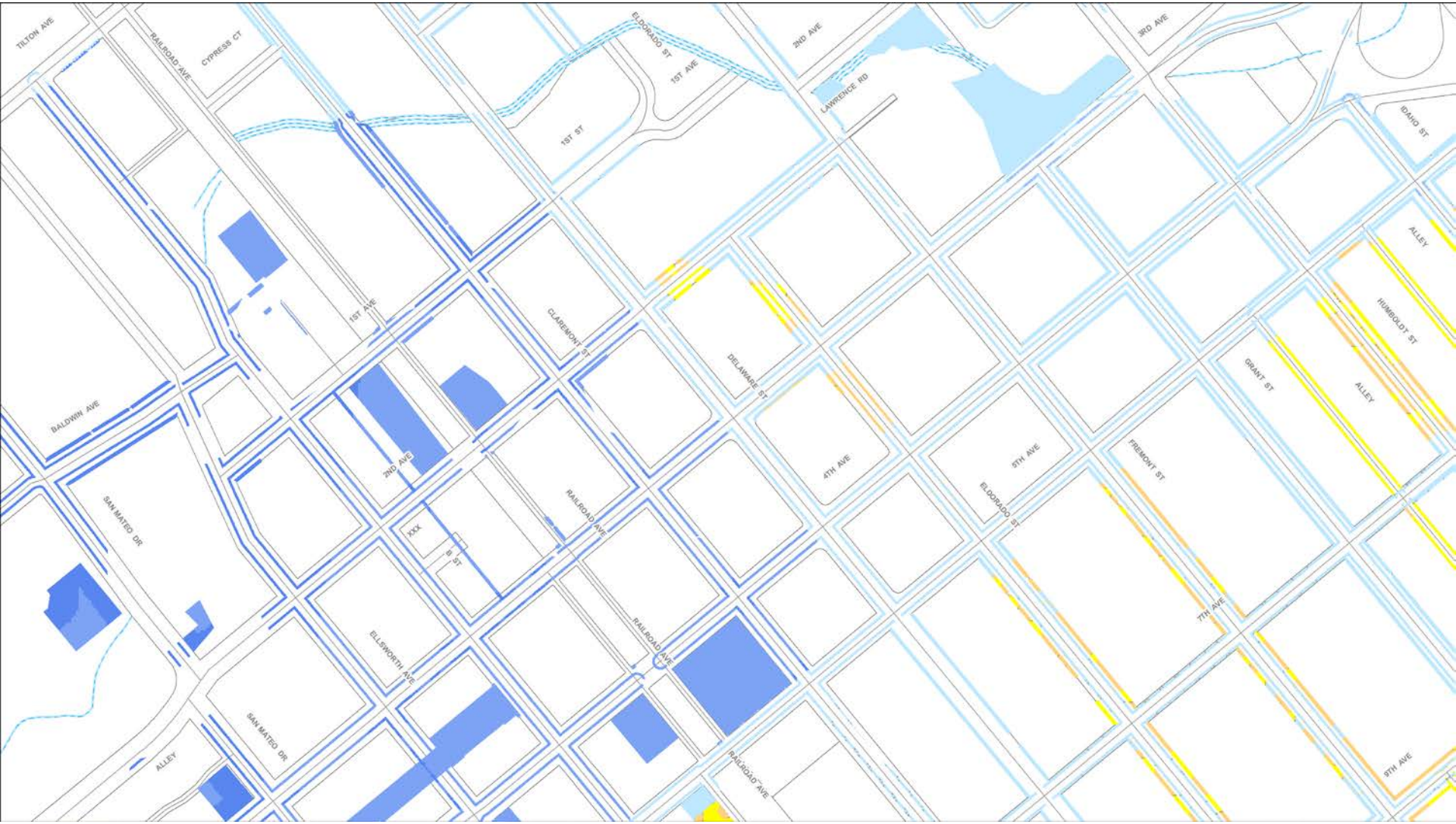


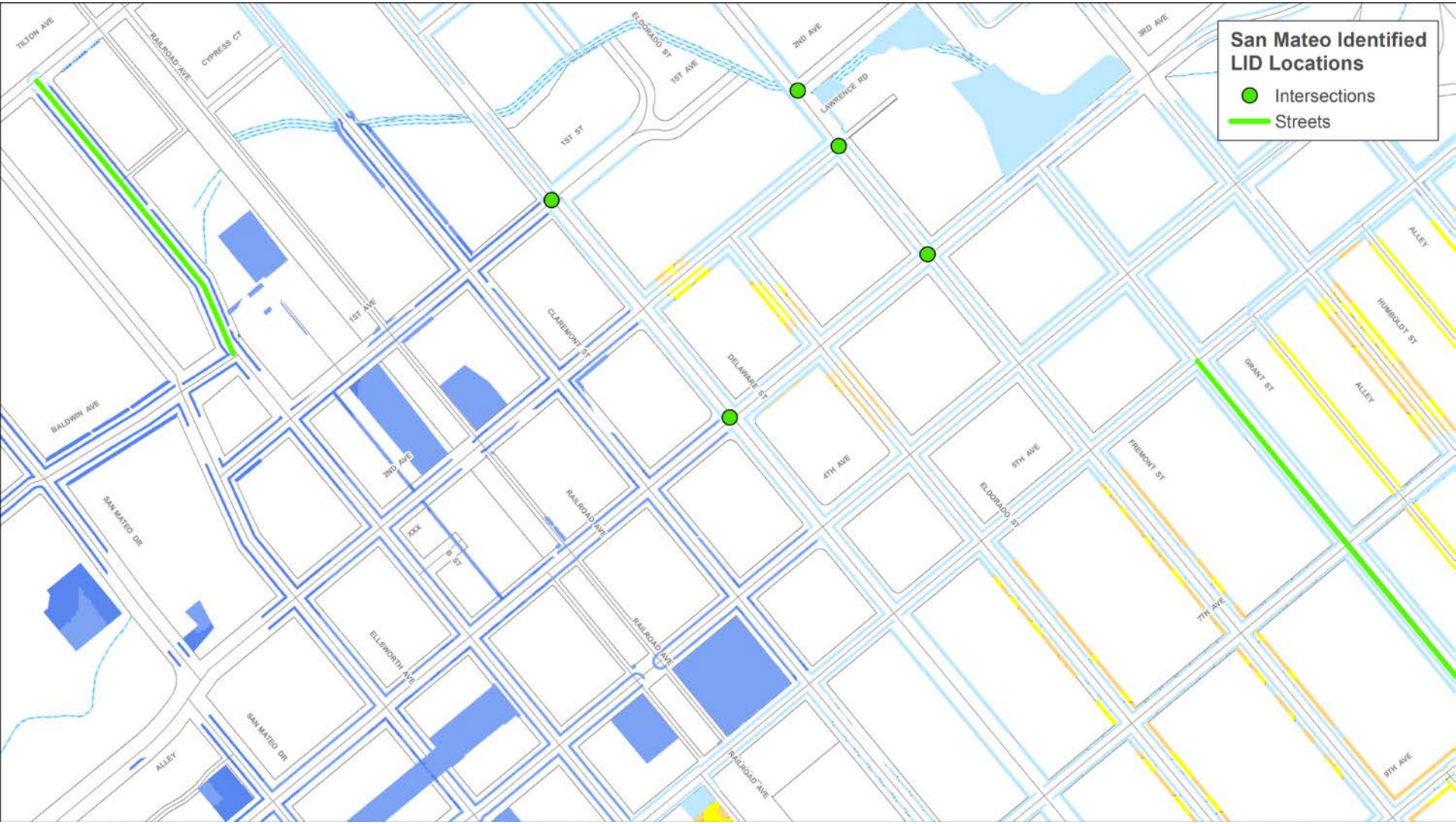
San Mateo Output



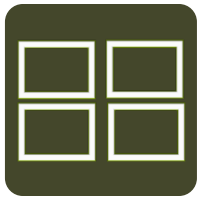
San Mateo Output




TILTON AVE
RAILROAD AVE
CYPRESS CT
ELDORADO ST
1ST AVE
2ND AVE
3RD AVE
1ST ST
LAWRENCE RD
IDAHO ST
ALLEY
HUMBOLDT ST
GRANT ST
ALLEY
1ST AVE
CLAREMONT ST
DELAWARE ST
BALDWIN AVE
2ND AVE
4TH AVE
5TH AVE
FREMONT ST
SAN MATEO DR
RAILROAD AVE
XXX
B ST
ELDORADO ST
7TH AVE
ELLSWORTH AVE
RAILROAD AVE
SAN MATEO DR
ALLEY
RAILROAD AVE
9TH AVE

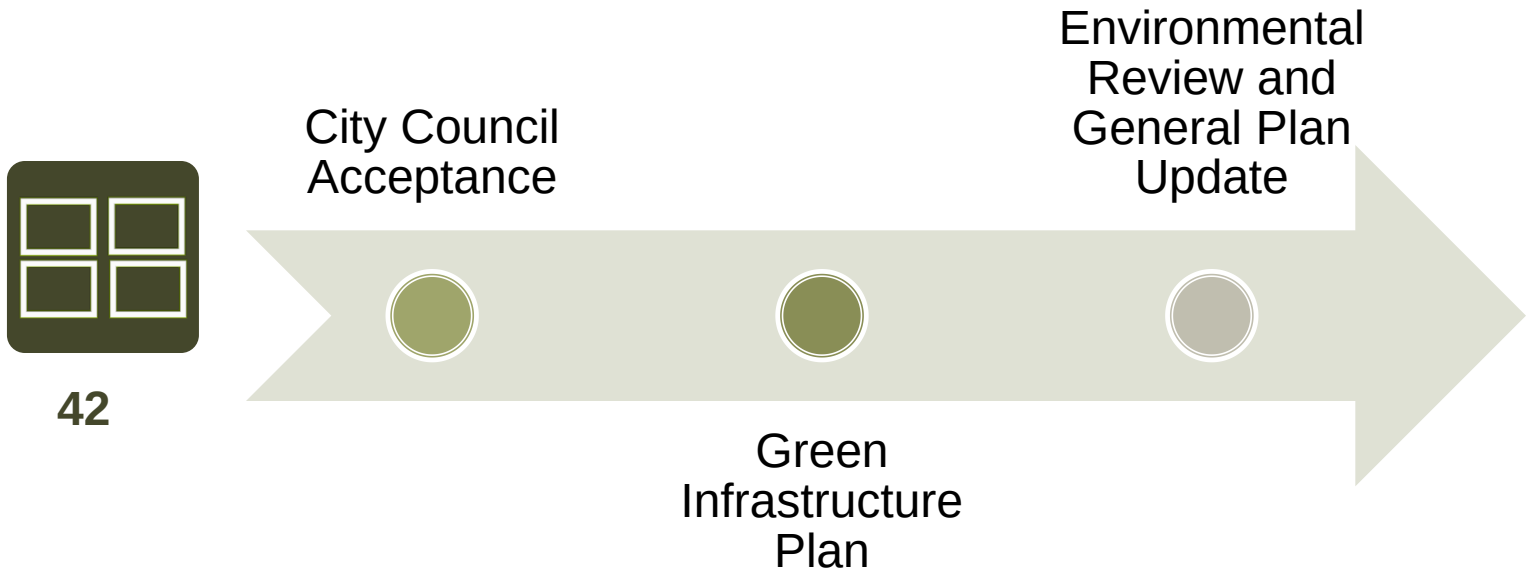

San Mateo Identified LID Locations
Intersections
Streets
TILTON AVE
RAILROAD AVE
CYPRESS CT
ELDORADO ST
1ST AVE
2ND AVE
3RD AVE
1ST ST
LAWRENCE RD
1ST AVE
CLAREMONT ST
DELAWARE ST
BALDWIN AVE
2ND AVE
4TH AVE
5TH AVE
ALLEY
HUMBOLDT ST
GRANT ST
ALLEY
FREMONT ST
ELDORADO ST
SAN MATEO DR
RAILROAD AVE
XXX
B ST
ELLSWORTH AVE
RAILROAD AVE
7TH AVE
SAN MATEO DR
ALLEY
RAILROAD AVE
9TH AVE

San Mateo Lessons Learned



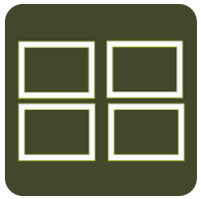
- First Sustainable Streets plan in Bay Area
- Links Green Streets with Complete Streets
- What can others learn from San Mateo

Sustainable Streets Plan & Additional Next Steps



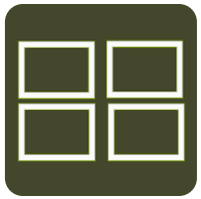
- Impact Fees and funding issues
- Adapting to MRP 2.0

Break



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

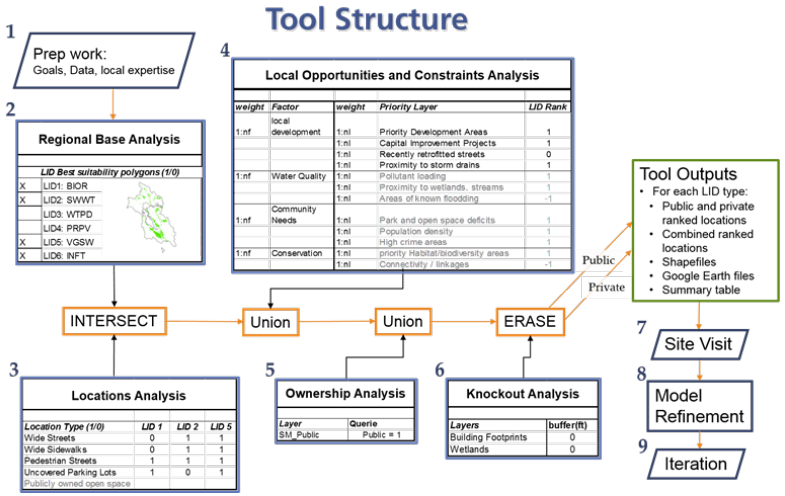
- Do GreenPlan Outputs in City Plans qualify as starting points for local programs? (identification of receiving sites)
- Roles for cities, counties, others to get programs off the ground
- Fee Calculation – design, construction, maintenance (include all?)
- Reporting
- Other ???

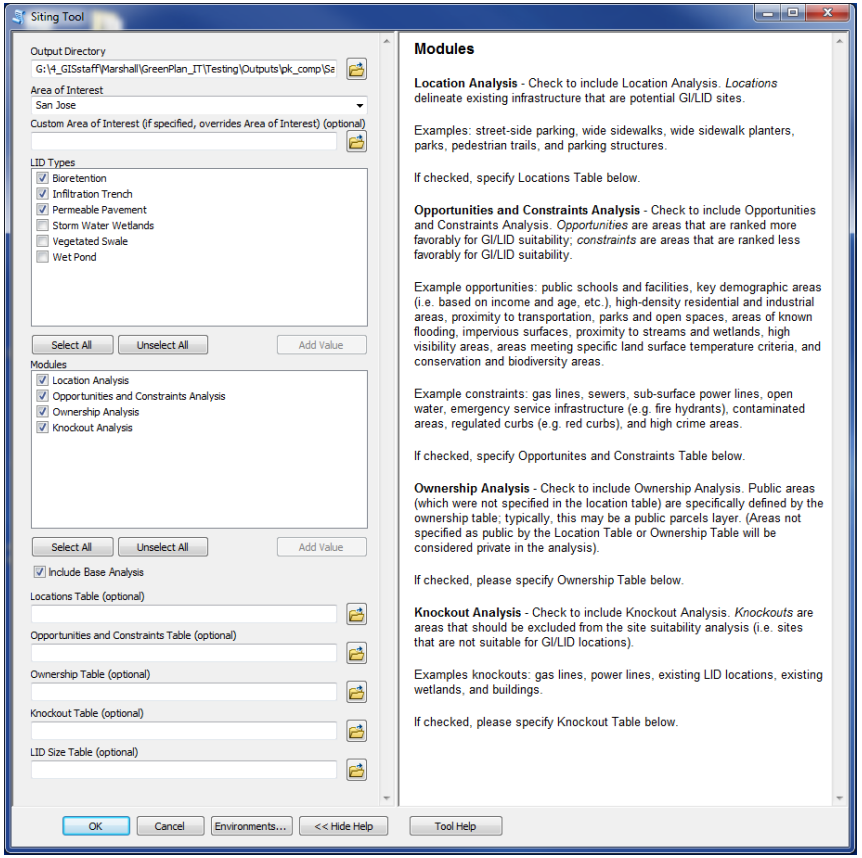
Roles

What	Who?
GreenPlan	City/County
Site Design	City/County/Developer
Site Matching	City/County/Developer
Project Budget	City/County
Maintenance Agreement	Developer

Webinar

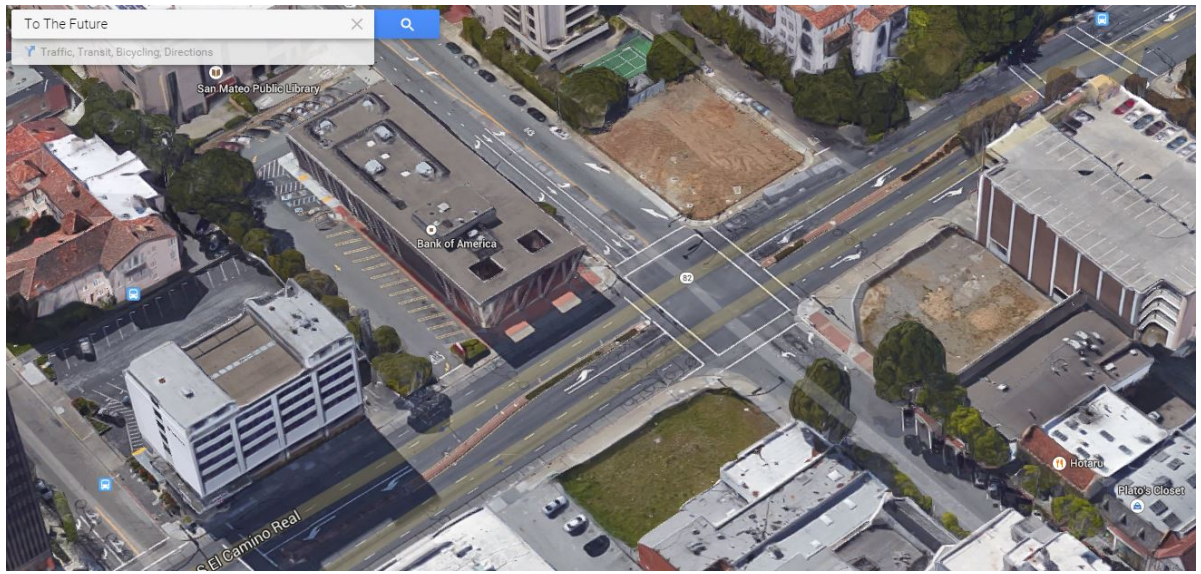
- June 11th Morning at SFEI
- Why attend
- Who should attend





With This Tool We Can Green The Future

Figure 4-5 View of El Camino Real Looking North Toward 3rd Avenue (Left: Current, Right: Vision)



Thanks

- Josh Bradt 510-622-5048
  jbradt@waterboards.ca.gov
- Jennifer Krebs 510-622-2315
  jkrebs@waterboards.ca.gov