From Grey to Green Streets: AGENCY TOOLS FOR COORDINATION

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San Francisco Public Utilities Commission
URBAN WATERSHED MANAGEMENT PROGRAM ELEMENTS

• Watershed Planning
• Policy & Process Development
• Regulation
• Capital Projects
• Outreach & Education
• Community Stewardship Programs
1. San Francisco’s Vision for “Better” Streets

2. What are the institutional challenges to implementation?

3. Tools for Institutionalizing Better Streets

4. Tools for Institutionalizing Green Streets

5. Project Examples

6. Discussion and Q&A
LAND USE IN SAN FRANCISCO

Parcels: 57% of city land

Streets: 25% of city land

Parks: 18% of city land
STREETS THAT...

...are high quality public spaces

...are safe for pedestrians

...encourage physical activity

...manage stormwater and maximize ecological potential
THE CHALLENGE
**Signage:**
Planning

**Street trees:**
DPW (Bureau of Urban Forestry) or property owner

**Lightpoles:**
PUC (PUC Streetlighting)

**Sidewalk permits and maintenance:**
DPW, property owner

**Parking, loading, bike, transit, traffic control:**
MTA (DPT, Muni)

**Storm drains, utilities:**
PUC (Wastewater Enterprise)

**Building facade, curb-cuts:**
Planning
TOOLS FOR INSTITUTIONALIZING COORDINATION
INTERAGENCY TOOLS

1. Better Streets Plan
2. SF Better Streets Website
3. Interagency Capital Planning Database
4. SFPUC’s Interagency Coordination Protocol for Green Infrastructure
5. Green Infrastructure Typical Plans and Specifications
6. Green Infrastructure Construction Management
INTERAGENCY AND PUBLIC REVIEW

- 10 rounds of agency review and comment
- Over 50 staff from 15 agencies involved in review
- Technical Advisory Committee to resolve issues

- 5 rounds of outreach with over 100 community meetings
- Monthly meetings with CAC
- 1,000 surveys received
- Over 100 comments on the Draft Plan
STREET TYPES

Commercial
Downtown
Throughway
Neighborhood

Residential
Downtown
Throughway
Neighborhood

Other
Industrial
Mixed-use

Special
Parkway
Park edge
Boulevard
Ceremonial (Civic)

Small
Alley
Shared public way
Paseo
STANDARD IMPROVEMENTS

Crosswalks

Trees

Furnishings

Bulb-outs

Stormwater

Lighting
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<th>Recommendation</th>
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<td>B1</td>
<td>Create and institute a unified project design checklist</td>
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<td>B2</td>
<td>Increase the profile of design and cost (operations and maintenance) considerations</td>
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<td>B3</td>
<td>Pilot formally-framed interdepartmental collaboration groups (Capital and Design Review)</td>
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<td>B4</td>
<td>Consolidate meaningful streetscape planning and delivery resources into single location</td>
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Sidewalk Landscaping

See also: DPW Sidewalk Landscape Homepage

Landscaped sidewalks look great, provide habitat for birds and butterflies, reduce stormwater runoff, improve neighborhood livability and increase property values.

Sidewalk landscaping is a simple and inexpensive street improvement that individual residents and property owners can make on their own.

PROCESS OVERVIEW

Sidewalk landscaping may be installed by small property owners, by major new development or as part of corridor-wide improvements.

Applicants are encouraged to apply as multiple property owners along a block or neighborhood to enhance the project’s benefits and lower costs to the applicants. Talk to your neighbors about putting together a joint sidewalk landscaping application.
CITYWIDE PROJECT MANAGER CHECKLISTS

- What is the Project’s Street Type?
- Does the project’s design include standard elements for its street type?
- Is the project on an identified transit route?
- Is the project on an identified bike route?
- Is the project in an identified area of need for stormwater management?
LELAND AVENUE
CESAR CHAVEZ STREET
CESAR CHAVEZ STREETSCAPE GREEN INFRASTRUCTURE IMPROVEMENTS

- 1 mile Streetscape Project
- 20 bioretention planters
  - 3,700 square feet of green infrastructure
- 2 Pervious Concrete Pedestrian Plazas
  - Opportunity to test first “Fine Grained” pervious concrete installation in SF
LESSONS LEARNED FROM LELAND, NEWCOMB, & CESAR CHAVEZ

- Establish more robust design review (staffing)
- Empower designers and inspectors with detailed specs
  - Construction Sequencing
  - Construction Methods
  - Soil delivery & installation
  - Infiltration Testing
  - QA/QC every 2 blocks
- Educate the contracting community about green infrastructure
- The City Family needs a stronger and more knowledgeable site presence during construction
- Coordinate early among the City Family regarding project goals, schedules, maintenance responsibilities & funding options
- Process development is as important as technology testing
CONSTRUCTION NOTES:
1. Checkdams shall be spaced to provide ponding per site specific design.
2. Slope top of planter wall to match longitudinal slope of road.
3. For edge treatment options refer to BP/C1.
4. Splash apron not integral to planter wall or other adjacent concrete surfaces. Refer to BP/C8 for energy dissipater details.
5. Lay out curb cuts to minimize ponding behind curb.
6. Optional planter connection shall be piped, trench drain, subsurface gravel connection, or approved equal.

UTILITY NOTES:
1. Existing utility lines must be sleeved and marked with utility marking tape or relocated. Include measures to ensure water tight utility penetrations through planter wall (e.g., water stop, trench block, or trench collar) to prevent preferential flow into utility trenches. Proposed utility lines to be located outside of facility.
2. Abandoned utilities observed during construction must be removed. Coordinate with DPW or Engineer.
1. Green Infrastructure Construction Management Training

2. Green Infrastructure Construction Management Field Guide

3. Tailgate Talks

4. Specifications

**Maintain Soil Pore Space**

- Nice open pore space - water flows through easily

- Fine sediment clogs pore space - water ponds on surface

- Compacted soil - water ponds on surface
FUTURE GREEN INFRASTRUCTURE PROJECTS

- **Baker Beach Green Street**
  - Richmond Watershed
- **Sunset Blvd Greenway**
  - Sunset Watershed
- **Holloway Green Street**
  - Lake Merced Watershed
- **Upper Yosemite Creek Daylighting**
  - Yosemite Watershed
- **Visitacion Valley Green Nodes**
  - Sunnydale Watershed

Chinatown Green Alleys
- North Shore Watershed

Wiggle Neighborhood Green Corridor
- Channel Watershed

Mission & Valencia Green Gateway
- Islais Creek Watershed

STANDARD INTERAGENCY PROCESS FOR LID PROJECTS

1. Mapping Interagency Projects
2. Presentation to Streets Capital Group
3. Interagency Mtg re Project Area
4. Develop Interagency Project Team
5. Plan for Integrated Design and Outreach
GREEN INFRASTRUCTURE PROJECT CONCEPTS

Baker Beach Green Street Concept

Mission & Valencia Green Gateway

Upper Yosemite Creek Daylighting
CHALLENGES & NEXT STEPS

• Integrate process improvements into current practice
• Outreach to the inspection and contracting community
• Identify ideal levels of city-wide institutionalization of green infrastructure vs. SFPUC specialization
• Develop maintenance agreements amongst key agencies
• Develop comprehensive tree policy
QUESTIONS?

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BACKUP SLIDES
URBAN WATERSHED MANAGEMENT PROGRAM ELEMENTS

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Green infrastructure resulting from the Stormwater Management Ordinance:

PARCEL PROJECTS

• 88 Stormwater Control Plans submitted
• Over 150 acres will be managed as a result of first 3 years of implementation
• Parcel Project BMP selection
  • Permeable paving: 51
  • Bioretention: 54
  • Green roofs: 17
  • Cisterns: 22
  • Other infiltration strategies: 43

MULTI-PARCEL PROJECTS

• Over 1,500 acres managed when developments are complete
Bayview Hill Gardens – Affordable Housing
- Third & Le Conte Streets
- 73 Unit Apartment Building
- 26,337 sf site
- BMP Types – bioretention planters & permeable paving

University of SF - Center for Science & Innovation
- Golden Gate & Parker Avenues
- University Campus Project
- 64,263 sf building & plaza
- BMP Types – vegetated roof, rain gardens, cistern & permeable paving
In the CSS, at a development rate of 1% per year over 20 years, we expect:

- 150 MG/yr reduction in CSD volume
- 15% - 20% reduction in flood volume during the 5-year, 3-hour storm
WATERSHED STEWARDSHIP GRANT PROGRAM

- Funds sidewalk landscaping, rainwater harvesting, & green infrastructure projects in the public realm
- Engages community & provides opportunities for education & outreach
- Over $1.3 million granted

Lafayette Elementary School
Controller’s Office used the Regional Economic Model, Inc (REMI) a tool allowing decision-makers to test the economic effects of policies before implementation.

**REMI INPUT**

• $59 Million in green infrastructure projects, covering the planning, design and construction phases (maintenance not included yet)

**REMI OUTPUT**

• 37 additional jobs (or 222 FTE job years)
• 14 more people to San Francisco
• Modest increase in personal income and personal spending
• Three long-term jobs for future on-going maintenance

**Controller’s Office Assessment**

Benefits of building these nine green infrastructure projects outweigh costs to rate payers