City of San José

Planning, Building and Code Enforcement

Resource-Efficient Land Use: Smart Growth Gets Water-Wise

San Jose's Smart Growth-Water Management Policy Experience

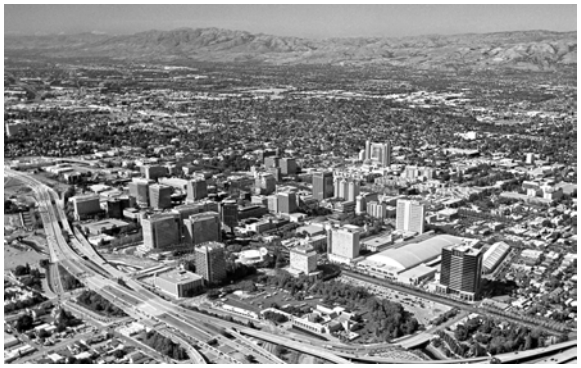
Denver, Colorado
January 27, 2006

Overview

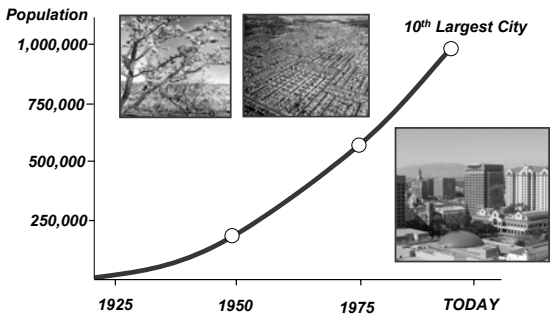
- *About San Jose*
- *Key Elements of San Jose's Post-Construction Run-off Management Strategy*
- *Tales from the Trenches*

Where is San Jose?

San José, California

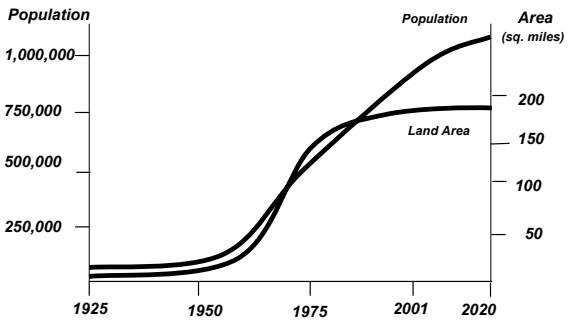


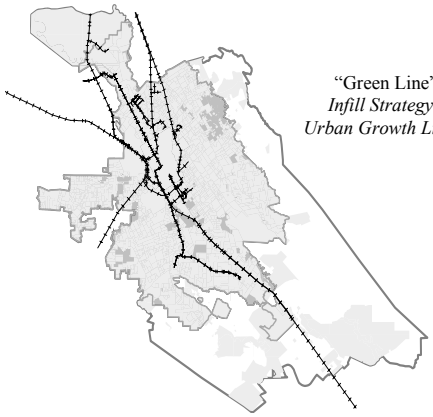
San Jose Development History



Population vs. Land Area

(2020)





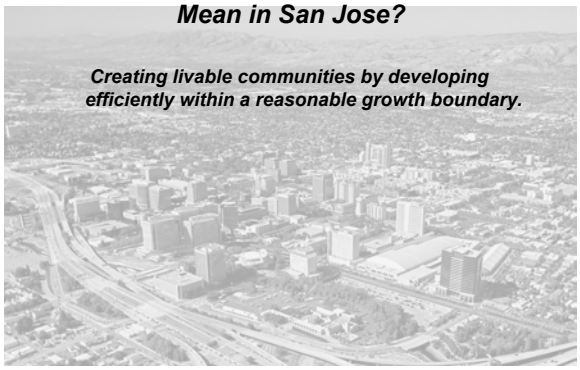
"Green Line"
Infill Strategy -
Urban Growth Limits

Key Elements of San Jose's Post-Construction Runoff Management Strategy

- General Plan Smart Growth Land Use Policy Framework
- City Council Post-Construction Urban Runoff and Hydromodification Management Policies
- Supporting Ordinances, Policies, Standards and Guidelines

What Does Smart Growth Mean in San Jose?

Creating livable communities by developing efficiently within a reasonable growth boundary.



Key Statistics

Recent Growth Trends-FY '99-'00 to FY '04-'05

- ***21,200 new dwelling units (3,500 annual avg.)***
- ***Built approximately 16 million square feet of commercial/industrial development.***
- ***All development located on infill sites with minor adjustments (<5 acres) to the Urban Growth Boundary***

ABAG Projections-San Jose 2030

- ***240,000 new jobs***
- ***355,000 new residents***

San Jose's Smart Growth Principles

Strong Neighborhoods

Create Transportation Choices

Mix Land Uses

Care of Unique and Special Resources

Vital Economy

Promote Community Collaboration

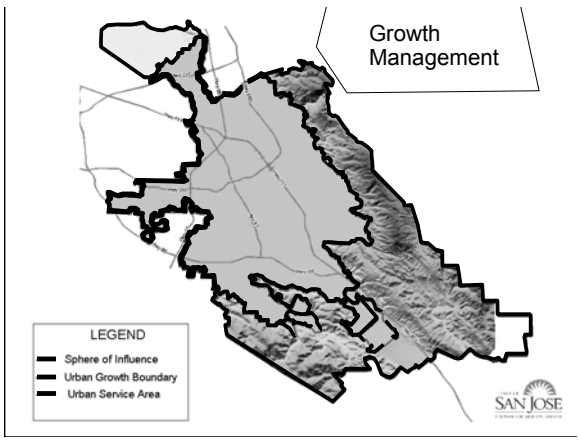
Foster Infill Development

Create a Walkable Community

Conserve Natural Resources

Healthy Environment

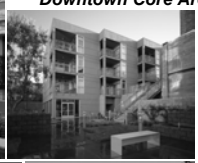
Preserve Open Space




Maintain the Greenline

- ***Protect open space***
- ***Preserve sensitive watershed habitat areas***
- ***Increased interest in preserving/restoring riparian corridors within Greenline***

Encourage Infill Development/Redevelopment


- ***Promote High Density Residential infill development along Transit-oriented Development Corridors and within the Downtown Core Area.***
- ***Also encourage both Brownfield and Greyfield infill development.***

Maximize Transportation Choices



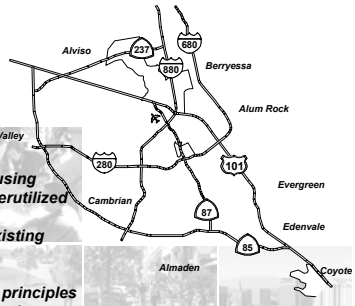
- ***Light Rail, Bus Rapid Transit, ACE/Caltrain Commuter Rail***
- ***Riparian Trails, Bike Lane and Paths Network, Pedestrian Paths and Paseos***
- ***Currently planning future expansion of Bay Area Rapid Transit (BART) to San Jose***

Intensified Economic & Residential Development

North San Jose

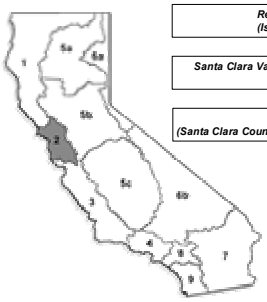
Downtown

Coyote Valley



- *Intensify job and housing opportunities in underutilized areas with adequate infrastructure and existing light rail (NSJ & DT)*
- *Apply Smart Growth principles and stormwater control policies in the long-range planning process (Coyote)*

Regulatory Framework: Federal, State, and Local Agencies



State Water Resources Control Board

Regional Water Quality Control Board (Issues NPDES Permit to SCVURPPP)

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)

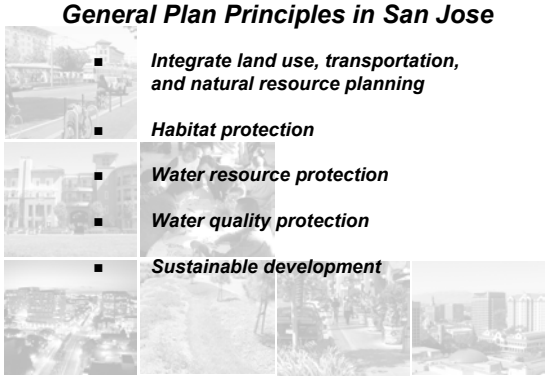
Co-Permittees (Santa Clara County, SCVWD, and 13 Local Cities including San Jose)

City of San Jose

Regulatory Framework

- *The Stormwater pollution discharge permit is issued by the San Francisco Bay Area Regional Water Quality Control Board to jurisdictions in the Santa Clara County watershed.*
- *San Jose is the first large city in the Northern California to implement these new requirements.*
- *Applies to all "Major Projects" involving 10,000 square feet or more of impervious surface.*
- *Council Policy 6-29 is the City's Policy for implementing this water quality requirement.*

Watershed Planning: General Plan Principles in San Jose



- ***Integrate land use, transportation, and natural resource planning***
- ***Habitat protection***
- ***Water resource protection***
- ***Water quality protection***
- ***Sustainable development***

Watershed Planning:Best Management Practices (BMPs) for Development

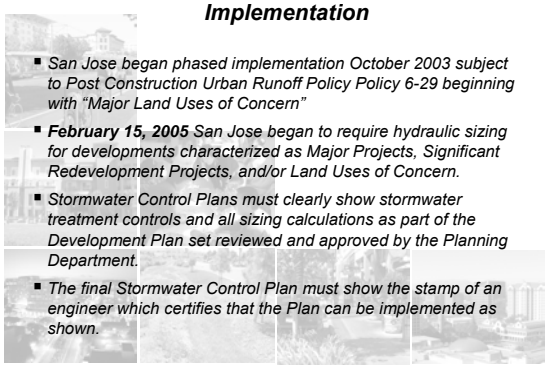
Site Design
Minimize Volume and Peak Flow of Runoff By Designing Less Impervious Surface Area in New Projects

Source Control
Limit the Direct Exposure of Runoff to Pollutant Sources

Treatment Measures
Detain Runoff & Remove Pollutants on Site

- ***Requires hydraulic sizing of post construction BMPs to address pollutant loading from new development.***
- ***Requires control of flow volumes and durations from new development to address potential impacts from erosion of creeks.***
- ***Requires ongoing verification that BMPs are maintained.***
- ***Trilogy of BMPs: Site Design, Source Control, Treatment Measures***

City Council Policy Development: Initial Implementation



- *San Jose began phased implementation October 2003 subject to Post Construction Urban Runoff Policy Policy 6-29 beginning with "Major Land Uses of Concern"*
- ***February 15, 2005** San Jose began to require hydraulic sizing for developments characterized as Major Projects, Significant Redevelopment Projects, and/or Land Uses of Concern.*
- *Stormwater Control Plans must clearly show stormwater treatment controls and all sizing calculations as part of the Development Plan set reviewed and approved by the Planning Department.*
- *The final Stormwater Control Plan must show the stamp of an engineer which certifies that the Plan can be implemented as shown.*

Policy Provisions: Post-Construction Urban Runoff Management Policy

Key Provisions:

- *Based on SCVURPPP Permit and Manual*

Standard Provisions:

- *All new and redevelopment projects are required to implement Post-Construction Pollution Reduction BMPs and TCMs to MEP.*
- *Establishes specific design standards for Post-Construction TCMs for Major Projects, Significant Redevelopment Projects, and developments categorized as a Land Use of Concern*

Policy Provisions: Post-Construction Urban Runoff Management Policy

General Guidelines:

- *All projects encouraged to minimize impervious surface.*
- *Reference to Bay Area Stormwater Management Agencies Association (BASMAA) guide, "Start at the Source Design Guidance Manual for Stormwater Quality Protection."*
- *Vegetative swales or other biofilters recommended as preferred choice verses mechanical devices*

Policy Provisions: Post-Construction Hydromodification Management Policy 8-14

- *Hydromodification Management Plan addresses erosion in creeks by managing volume and duration of additional runoff*
- *Examples include: Detention basins,underground vaults, in-stream erosion control measures, regional solutions*
- *Projects required to match pre-project flow-duration pattern*

Tools and Resources for Implementation: Primary Implementation Documents

- *San Jose 2020 General Plan (1994)*
- *Zoning Ordinance*
- *Riparian Corridor Policy (1994)*
- *City's Stormwater Guidance Manual (1998)*
- *Post-Construction Urban Runoff Management Policy (1998, last revised 2005)*
- *Post-construction Hydromodification Management Policy (2005)*

Tools and Resources for Implementation Resources: Guidance Documents for Incorporating BMPs into Projects

- *Start at the Source*
- *Guidance Manual on Post-Construction Stormwater Quality Controls*
- *Design Guidelines*
- *Landscape and Irrigation Guidelines*
- *Riparian Corridor Policy Study*

Riparian Corridor Policy Study

- *Based on General Plan policies – Urban Design, Storm Drainage & Flood Control, Parks & Recreation, Trails & Pathways, Woodlands & Grasslands, Water Resources, Marine & Wildlife*
- *Coordinated with other local agencies – Santa Clara Valley Water District, Santa Clara County Trails and Pathways Plan*
- *Detailed inventory of 136 miles of riparian corridor encompassing 35 rivers, streams and tributaries*

Riparian Corridor Development Guidelines

- *Site Design – Building Orientation, Incompatible Land Uses*
- *Riparian Setback Areas (100 ft. standard, with exceptions)*

- *Trail Design and Construction, Landscaping, Fire Management, Vegetation Continuity and Removal, Trail Design and Construction, Erosion Control, Flood Control,* Water Quality Protection

Residential Design Guidelines

- *Street design – narrow residential street (48' ROW w/30' pavement)*
- *Parking – 10% reduction in required off-street parking for projects within 2000' of an existing or proposed rail station or within a Neighborhood Business District (Zoning Ordinance)*
- *Storm Water Pollution Control – minimize hardscape & directly connected impervious areas, direct rooftop drainage to landscaped areas*

Transit-Oriented Design (TOD) Guidelines

(In Progress)

- *TOD is high-density residential and mixed-use development designed to encourage accessible, active, pedestrian-oriented areas within walking distance of transit.*
- *TOD promotes:*
  - ✓ *Active pedestrian environments*
  - ✓ *Transit-ridership*
  - ✓*Shared parking & lower parking-to-occupant ratios*
  - ✓ *Intensification of existing & development of new neighborhood business districts*

Transportation Management Policies

Transportation Level of Service Policy

Revised to encourage:

- Higher-density development
- More walkable neighborhoods
- Enhanced transit corridors and mixed use districts

- ***Stormwater Benefits:*** *Supports infill development/ redevelopment, limits street and intersection widening, and limits the expansion of impervious pavement*
-

- ***North San Jose Area Development Policy***

- Encourage vertical workspaces
- Commercial along North First Street Light Rail Corridor
- Mid-rise workforce housing in strategic locations

Stormwater Benefits: *intensified infill development close to transit, redeveloping existing impervious areas*

Green Building Policy

- Based on ***General Plan Sustainable City Major Strategy*** that focuses on San Jose becoming an environmentally and economically sustainable city.

- ***City Facilities:*** All new and major retrofit projects involving City facilities >10,000 square feet shall meet "San Jose LEED" Certified rating.

- ***Private Sector Facilities:*** City staff encourages all private developers to achieve "San Jose LEED" Certified ratings on structures through incentives and educational programs.

Parkland Dedication Ordinance

Proposed Revisions:

- *50% credit for parkland used for both storm water detention basins and recreational facilities.*

- *Credit anticipated to encourage additional parkland dedication from developers.*

- *Credit towards required recreational amenities expanded to include private urban plazas, community garden plots and roof gardens.*

Tales From The Trenches

Experience and Lessons Learned:
New and Redevelopment FY '04-05

- *The FY04-05 Annual Report indicates 43 Group 1 private projects included storm water treatment facilities*
- *25 included vegetated bio-swales*
- *Three included (flood control) detention basins.*

Tales From The Trenches

Experience and Lessons Learned:
New and Redevelopment FY '05-06

- *Public Works and Planning are reviewing Stormwater Control Plans and sizing calculations for approximately 15-20 Group 1 and Group 2 projects on file.*
- *Several in the pipeline (under preliminary review)*
- *Anticipate approximately 50 projects for FY 05 –06 that will require Stormwater Control Plan and hydraulic sizing calculations.*
- All public projects hydraulically sized including Tully Library (swales) and Alum Rock Library (swales and detention basin).

Tales From The Trenches

Integrating stormwater pollution prevention & hydromodification design into land use development review & approval process:

- Requires extensive training for all participants.
- Is a slow, methodical process of changing paradigms and gaining buy-in.
- Requires education of decision-makers/regulators.
- Requires a variety of design solutions for different projects.
- Requires extensive re-tooling of local government design review and approval process.

Tales From The Trenches

- Ultimately, implementing Smart Growth Land Use Policies can produce water resource protection benefits

- Policy is always evolving, for example in 2006 the sizing threshold for all projects is dropping from 1 acre to 10,000 square feet and a revision to the City's Parkland Dedication Ordinance is being considered that would allow 50% credit for multi-purpose park facilities that can function as both stormwater detention basins and recreational facilities