

# *North San Jose*

## *Neighborhoods Planning Taskforce*

### *Key Topics*

- *Water Supply*
- *Flooding*

### *Related Topics*

- *Storm Water*
- *Storm Sewer*
- *Sanitary Sewer*
- *Water Conservation*
- *Treatment Plant*



# Water – Background

- **Responsible Agencies**
  - FEMA & US Army Corps of Engineers
  - Regional Water Quality Control Board
  - Santa Clara Valley Water District
  - City of San Jose
- **Approved Policies and Documents**
  - NSJ Environmental Impact Report (EIR)
  - Water Supply Assessment
  - Flood Blockage Study

# *North San Jose Water Supply*

# Water Supply - Sources

- Santa Clara Valley Water District is County's water supply wholesaler
- San Jose Muni Water & San Jose Water Company are retailers serving North San Jose
- Valley supply roughly 50% local, 50% imported from outside Valley
- Local sources: groundwater, surface storage, recycled water
- Imported Sources: Federal and State water projects and SFPUC Hetch Hetchy deliveries

# Water Supply - Planning

- SB610 requires coordinating land use planning and water supply
- NSJ EIR included Water Supply Assessments by City of San Jose Muni Water and San Jose Water Company with Water District input

# Water Supply Assessments (WSA)

- WSAs compare phased demand projections, future supply sources to 2025.
- WSAs evaluate normal and drought scenarios for supply and demand.
- Key Conclusion - Expansion of existing recycled water system and continued implementation of water conservation programs are needed.

# MUNI Water Supply Assessment

<b>2025 Demand</b>	<b>AFY</b>	<b>2025 Supply</b>	<b>AFY</b>
Housing	<b>6,647</b>	SFPUC	<b>7,100</b>
Commercial	<b>470</b>	SCVWD (groundwater)	<b>754</b>
Industrial	<b>2,271</b>	Recycled	<b>4,277</b>
Public	<b>342</b>		
Irrigation	<b>2,373</b>		
Temporary	<b>28</b>		
<b>Total</b>	<b>12,130</b>		<b>12,131</b>

# Recycled Water

- Muni Water's South Bay Water Recycling (SBWR) is a recycled water distribution system consisting of 105 miles of pipeline, three reservoirs with a combined capacity of 9.5 million gallons (MG) and four pump stations able to distribute 54 million gallons of recycled water per day (mgd).

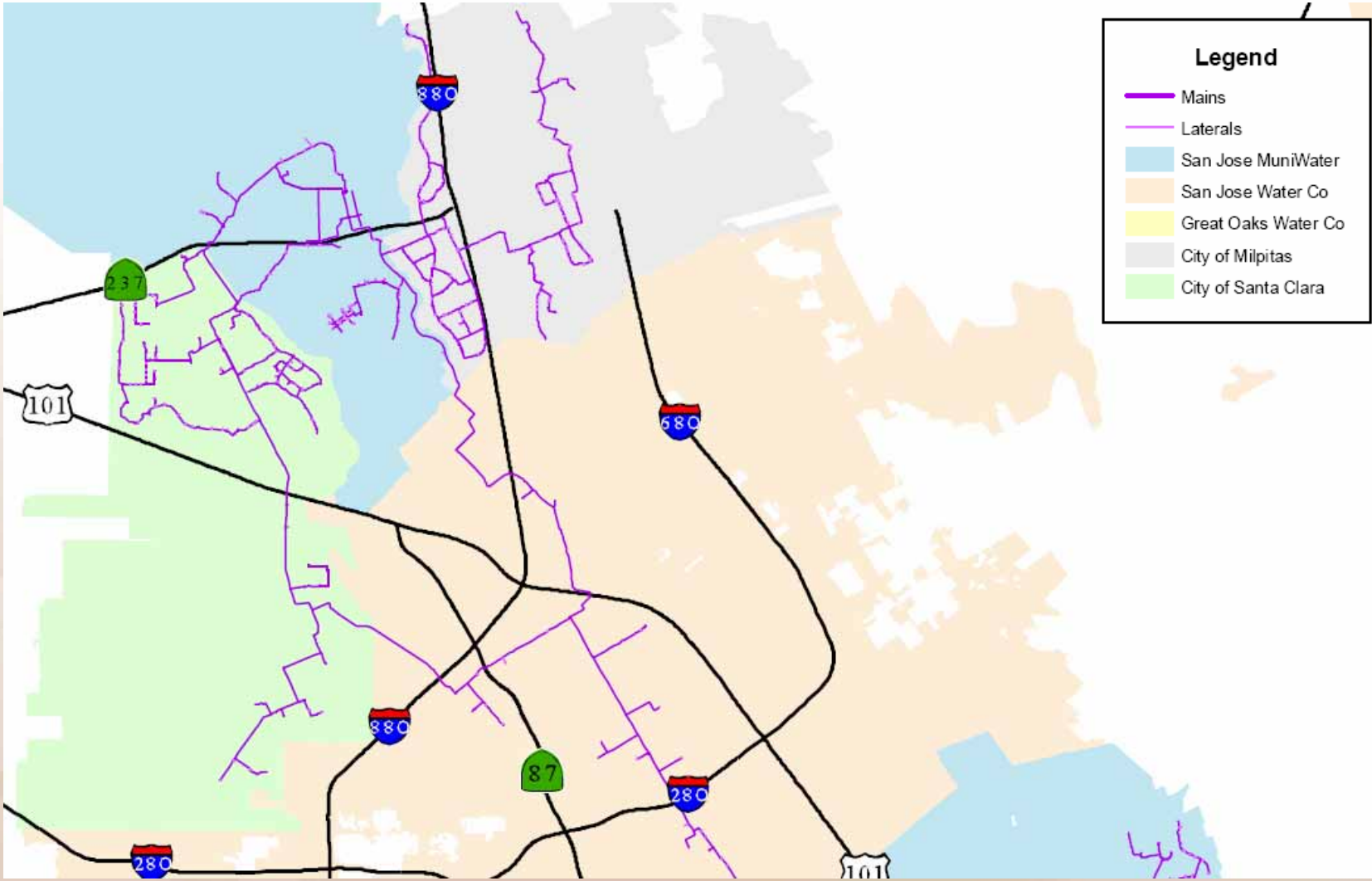
# Recycled Water

- Water District staff project a need in 2030 of as much as 45,000 AFY of recycled water countywide, including 34,000 AFY from SBWR, more than triple the current average annual countywide recycled water supply.
- AFY = acre foot per year, volume of water necessary to cover one acre of surface area to a depth of one foot.
- AFY = 326,000 gallons, roughly the amount of water used annually by a suburban household. Dense NSJ housing uses approximately 0.25AFY.

# Incorporating Recycled Water

- Plumbing development with “purple pipe” to use recycled water for landscape irrigation, ornamental features (fountains), toilet flushing, and specific industrial uses.
- Within Muni service area, recycled water can supply 4,276 AFY of 12,131 AFY total demand by 2025.
- Increased use of recycled water will require installation of additional recycled water pipelines into North San Jose.

# South Bay Water Recycling Pipe



# Balancing Supply and Demand

- City proposes, where appropriate:
- Dual plumbing for exterior and interior recycled water use.
- High-efficiency fixtures (l.e. ultra-low flush toilets).
- High-efficiency devices for outdoor water uses (l.e. self-adjusting weather-based irrigation controllers).
- Promotion of drought tolerant and native plantings in landscaping.

# *North San Jose Flooding*

# Flooding

- **Presentation Outline**

- Flooding and Citywide Flooding Areas
- Flood Maps and Floodplains
- How we deal with Projects in North San Jose

# History of Flooding in San Jose



Photo courtesy of the Santa Clara Valley Water District

# Sources of Flooding

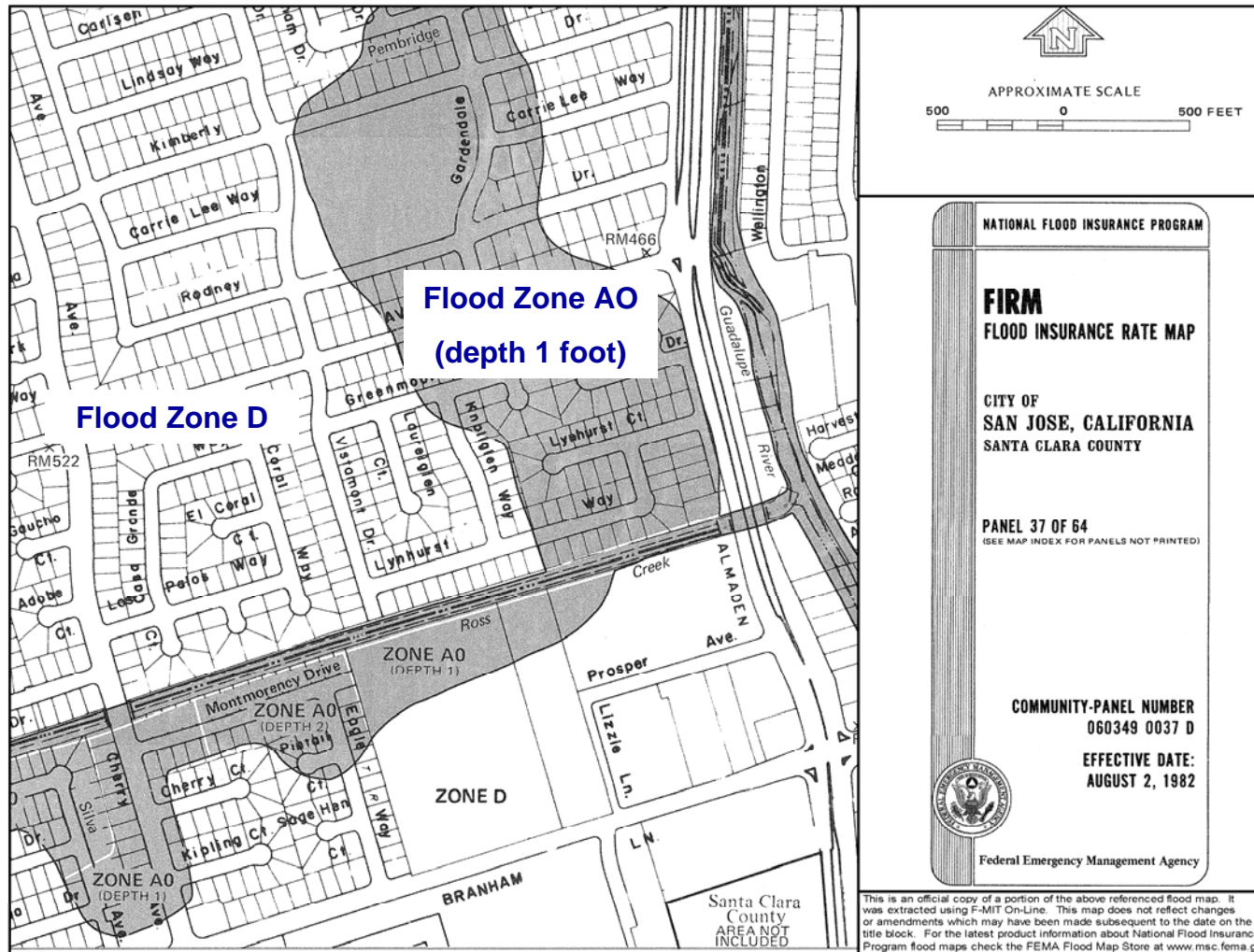
- Overflows from a creek or river
- High tides for coastal areas
- Overland flow
- Rising groundwater
- Blocked storm drains
- Broken water mains

# Recent Flooding in Downtown

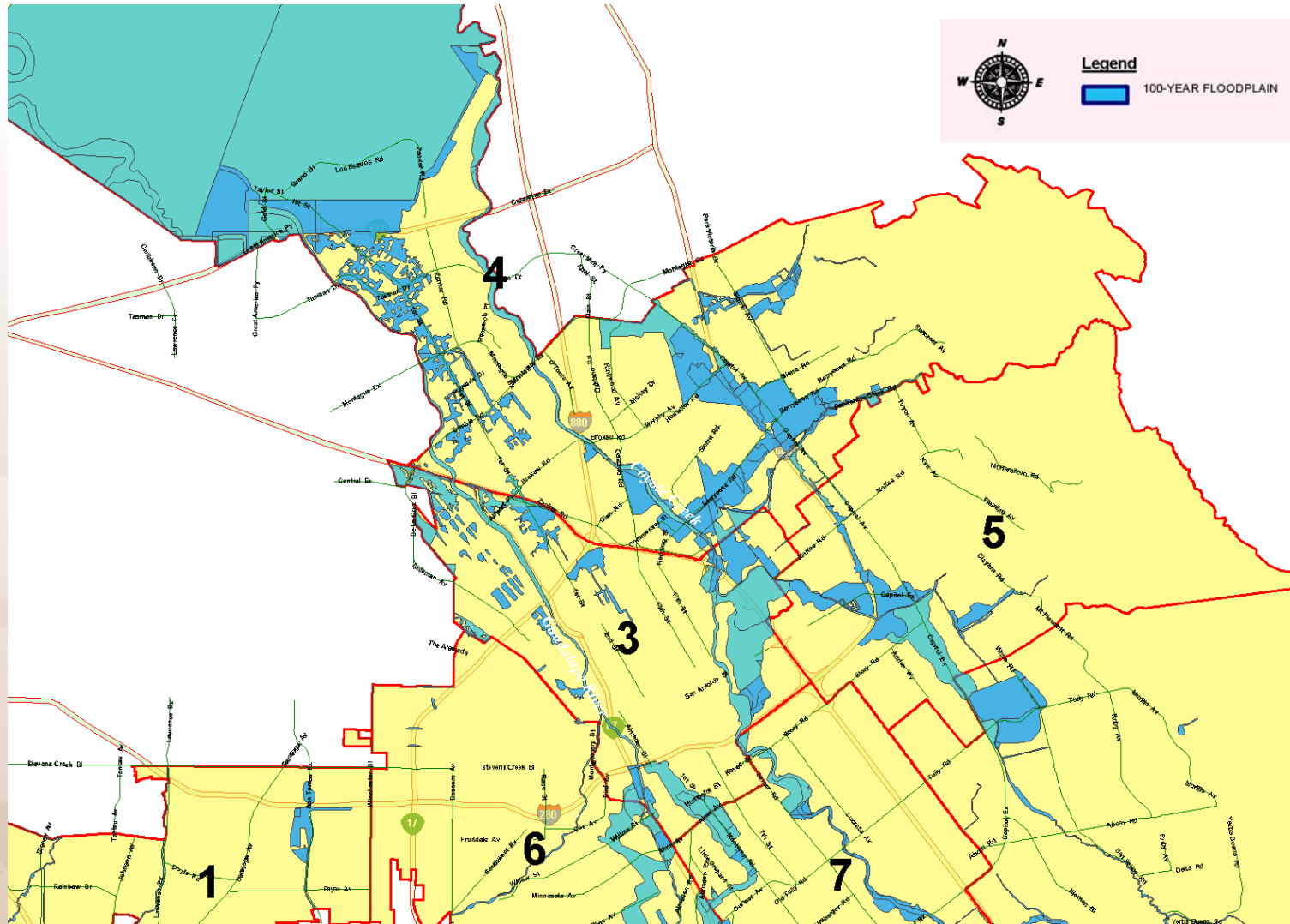


Photo from 7/30/07 San Jose  
Mercury News Report

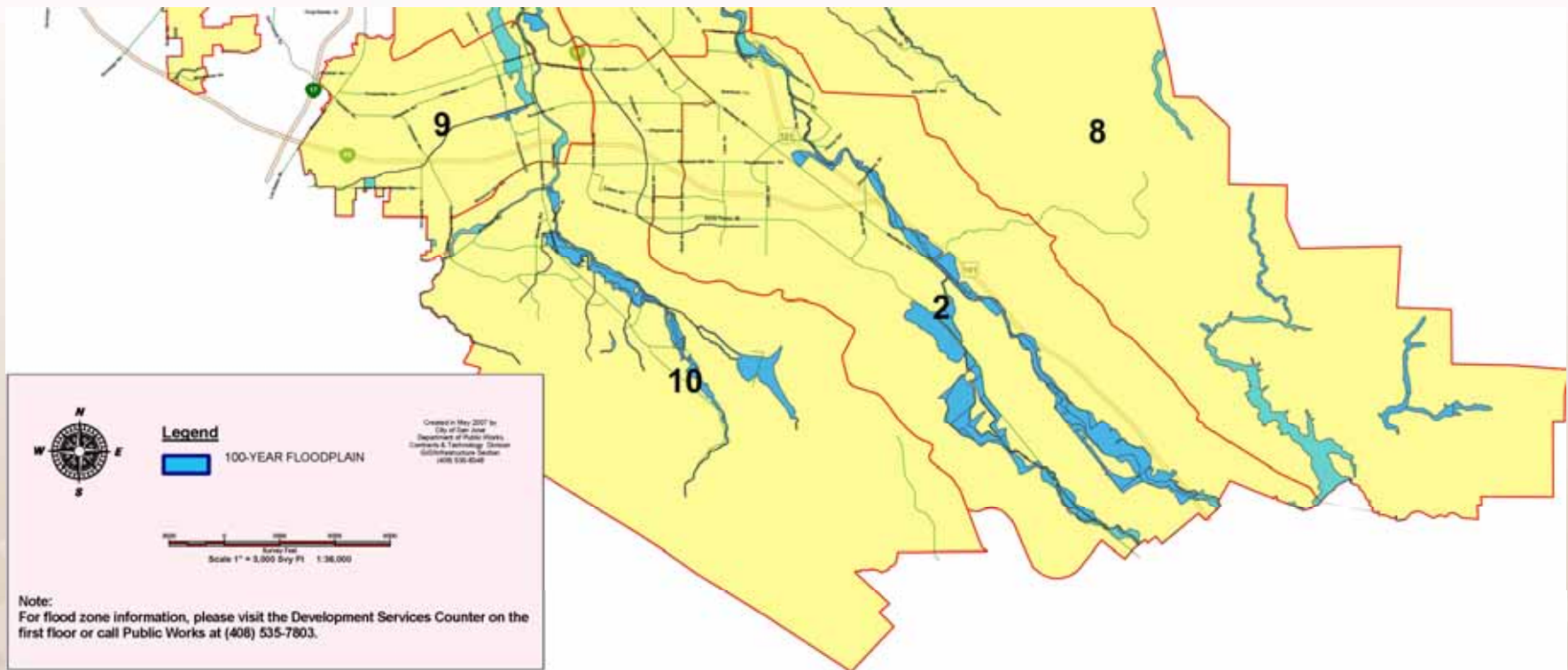
# FEMA Flood Maps



# 100-Year Floodplain – Northern Half



# 100-Year Floodplain – Southern Half



# How do we deal with Projects in North San Jose?

- Refer to Revised Flood Maps for North San Jose



# How do we deal with Projects in North San Jose? *(continued)*

- Require Compliance with City's Flood Hazard Ordinance
  - Chapter 17.08 of Municipal Code

Typical Elevated Residential Building



Elevated Alviso Residential Buildings



# How do we deal with Projects in North San Jose? *(continued)*

- Require Compliance with North San Jose Floodplain Management Study (Blockage Study)



# *Discussion*