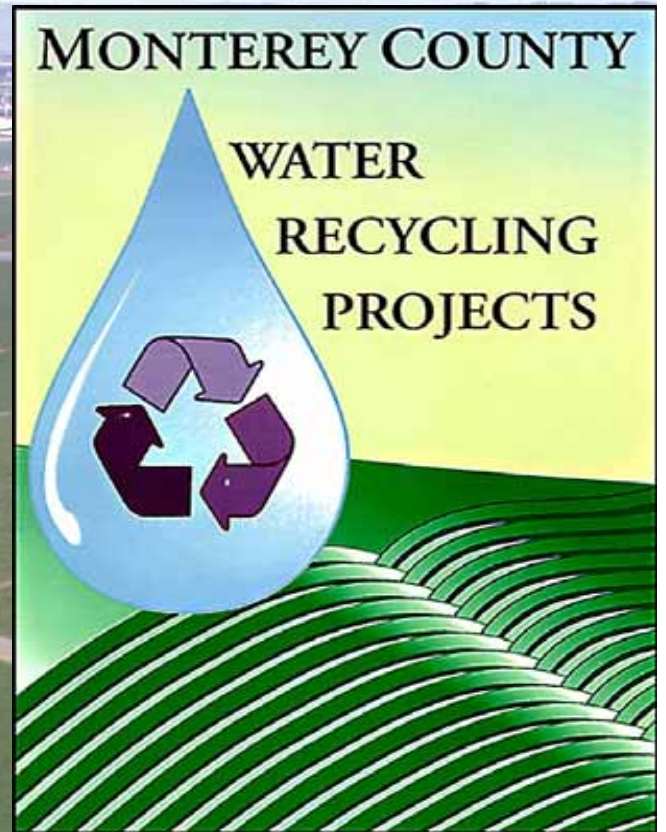
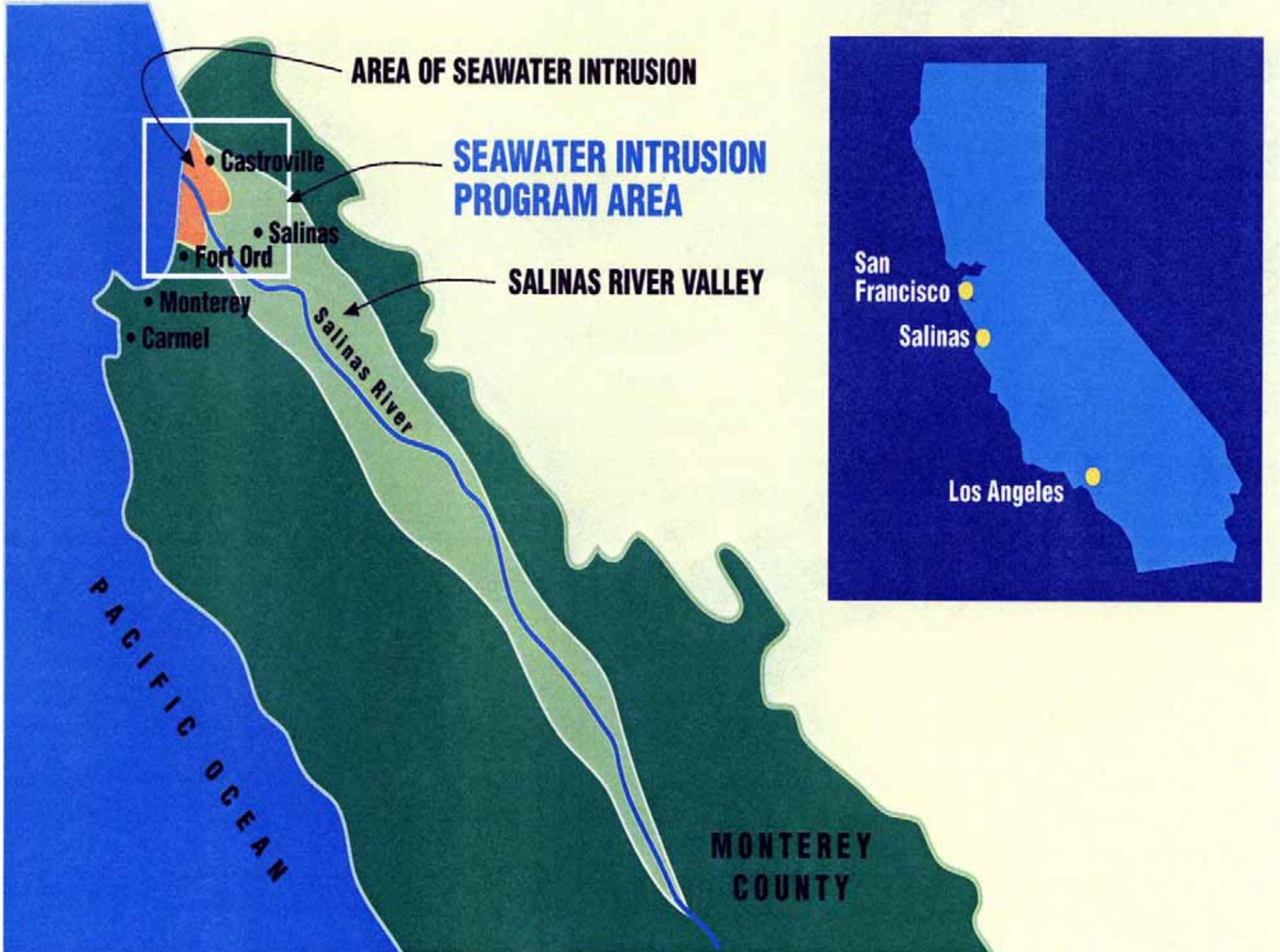


Agricultural Reuse of Recycled Water



James Dix, MRWPCA



Monterey County Agriculture \$4.1B



Lettuce = \$1.37 billion, 125,236 acres

Strawberries = \$785 million, 11,383 acres

Broccoli = \$316 million, 57,459 acres

450,000 AFY Groundwater Pumping

90+% Agriculture

1,800 Wells

- ← Fresh Water Movement
- █ Clay
- Water Bearing Gravels
- ▨ Seawater
- ➔ Seawater Intrusion

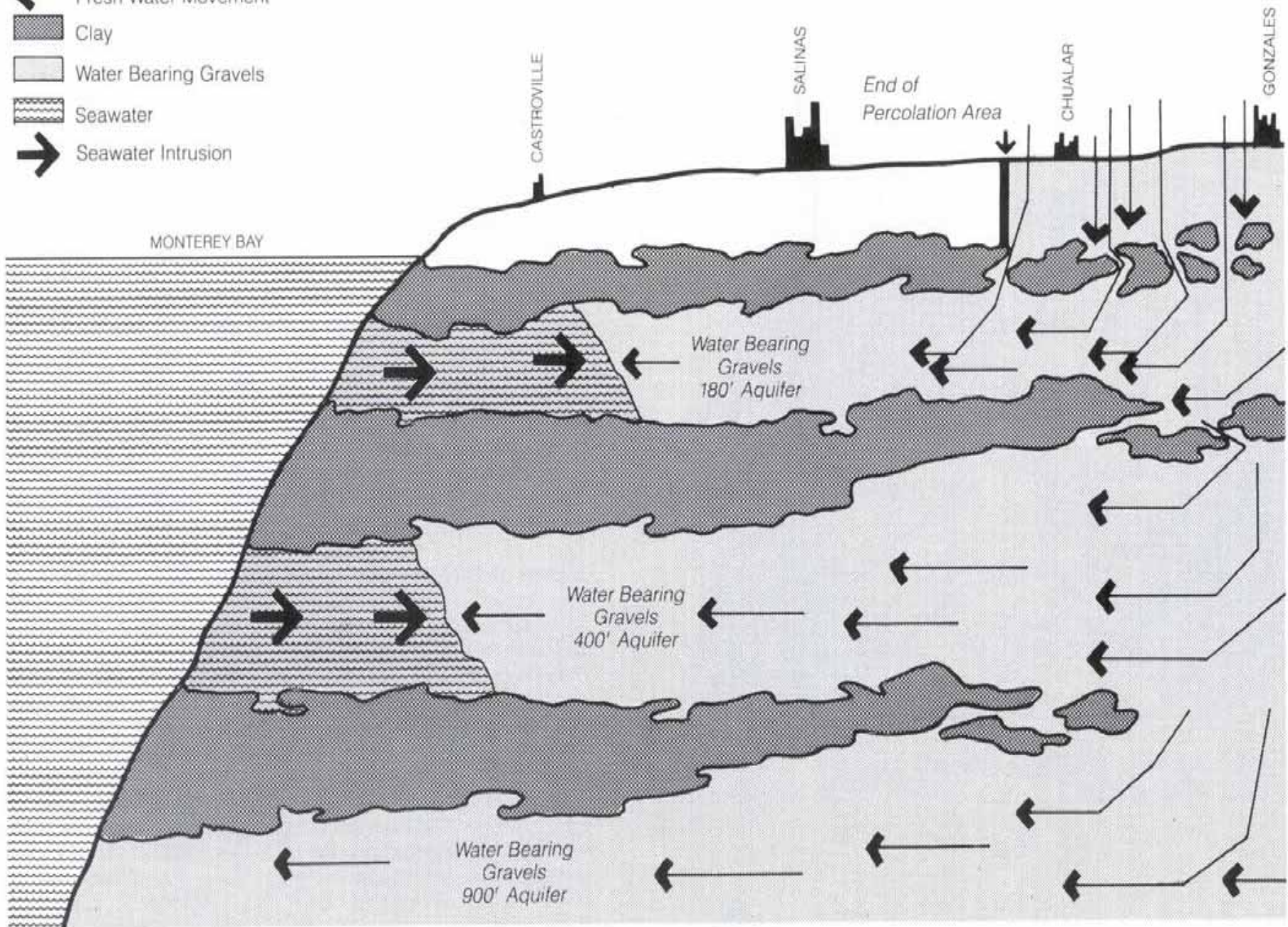
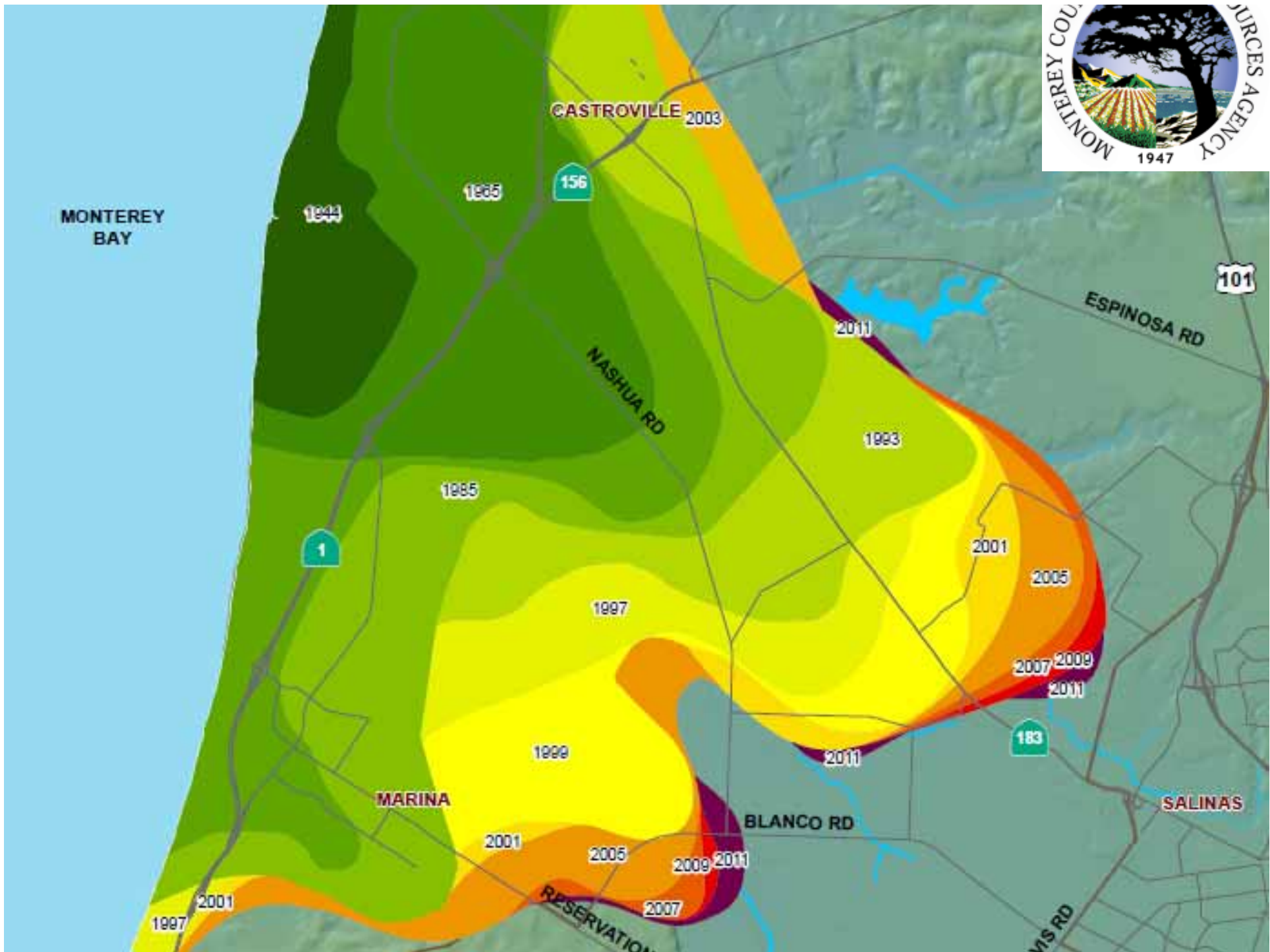


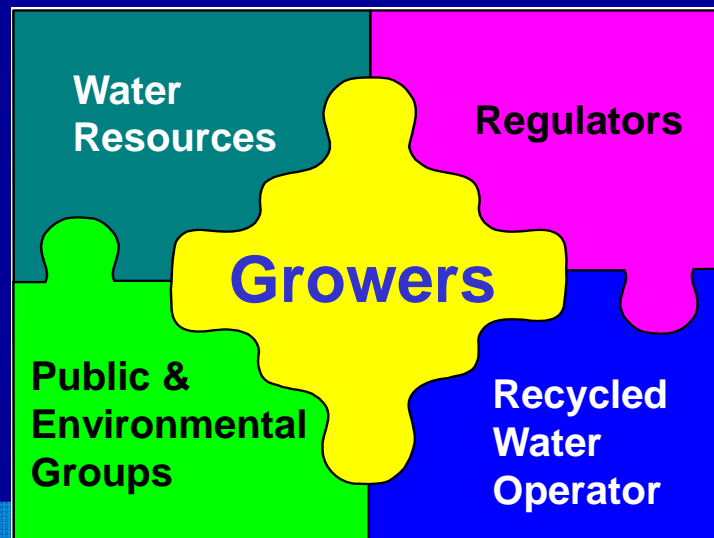
Figure 3 Movement of Groundwater in the North Salinas Valley



STRONG PARTNERSHIPS THE KEY TO SUCCESS FROM CONCEPT IN 1970'S



"...manages, protects, and enhances the quantity and quality of water ..."






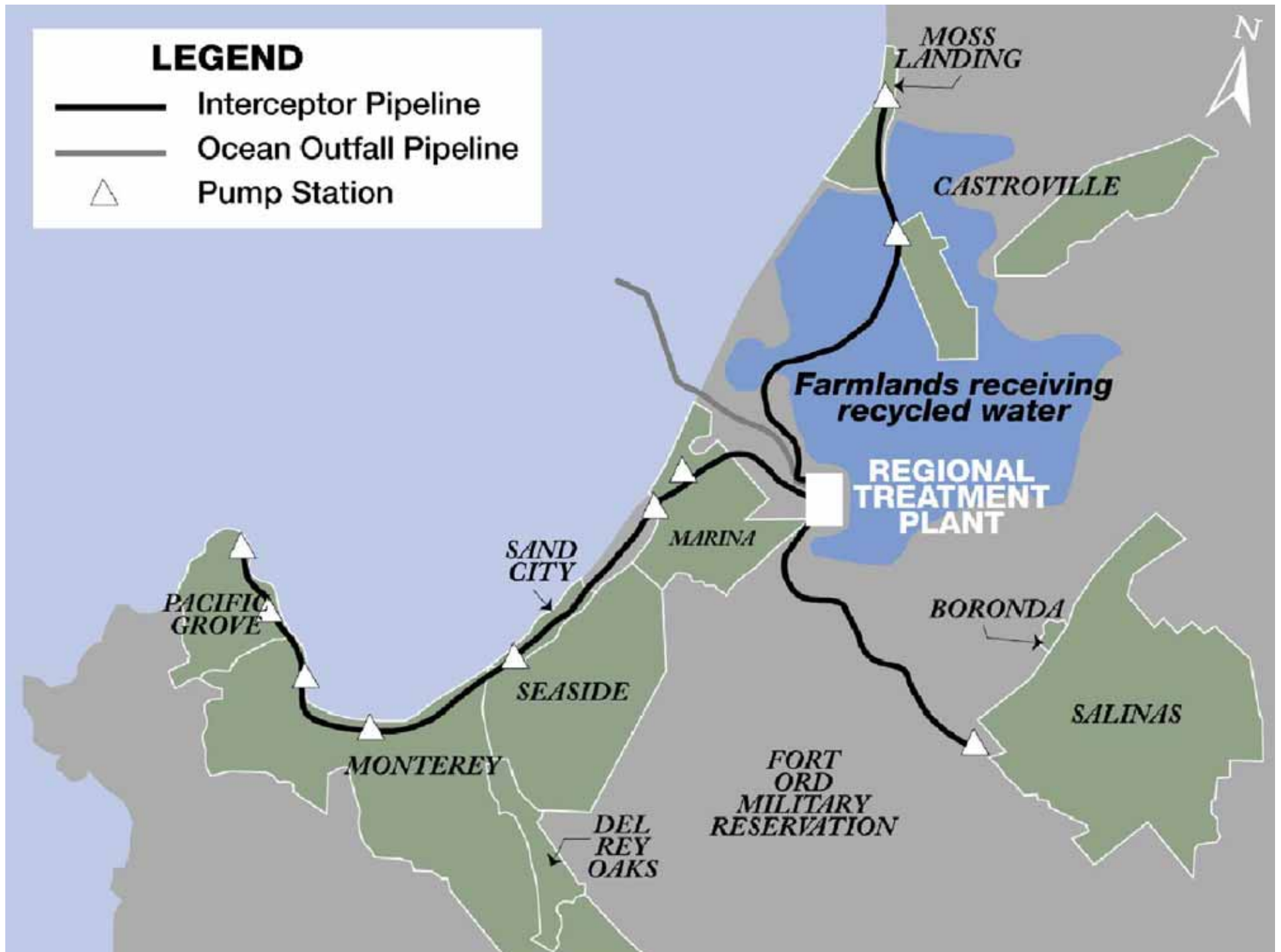
"Dedicated to meeting the wastewater and reclamation needs of our member agencies while protecting the environment"



"...exists to protect and improve the health of the people in Monterey County."

LEGEND

-  Interceptor Pipeline
-  Ocean Outfall Pipeline
-  Pump Station



Uses of Recycled Water

- Agricultural Irrigation
- Landscape Irrigation
- Toilets & Urinals
- Construction & Concrete
- Street Sweeping
- Power Plants & Boilers
- Impoundments
- Cooling Towers
- Manufacturing
- Environmental Uses
- Groundwater Recharge
- Seawater Intrusion Barrier
- Indirect Potable Reuse
- Fire Fighting

Regional Treatment Plant 1989

Capacity: 29.6 MGD Current Flow: 18 MGD
Located on 100 Acres

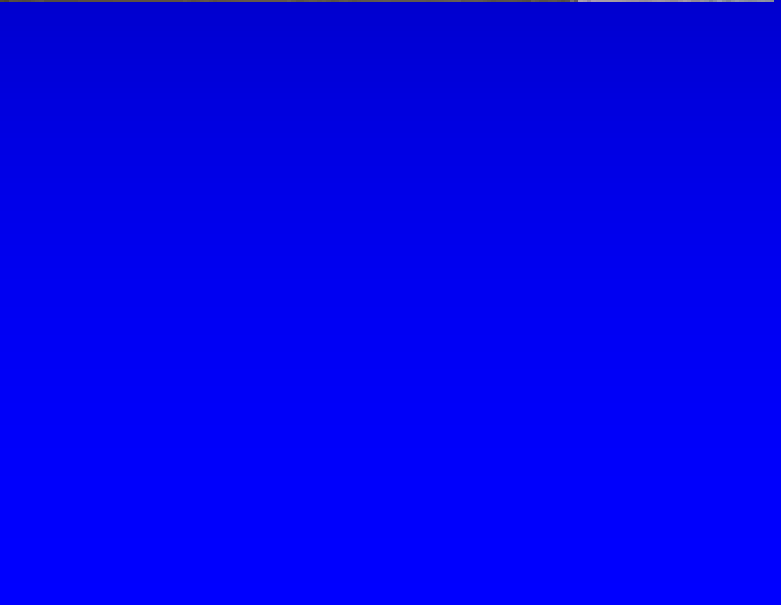
Solar Facility 2010
1.12 MW

Tertiary Treatment Plant 1998

Capacity: 29.6 MGD Current Flow: 18 MGD

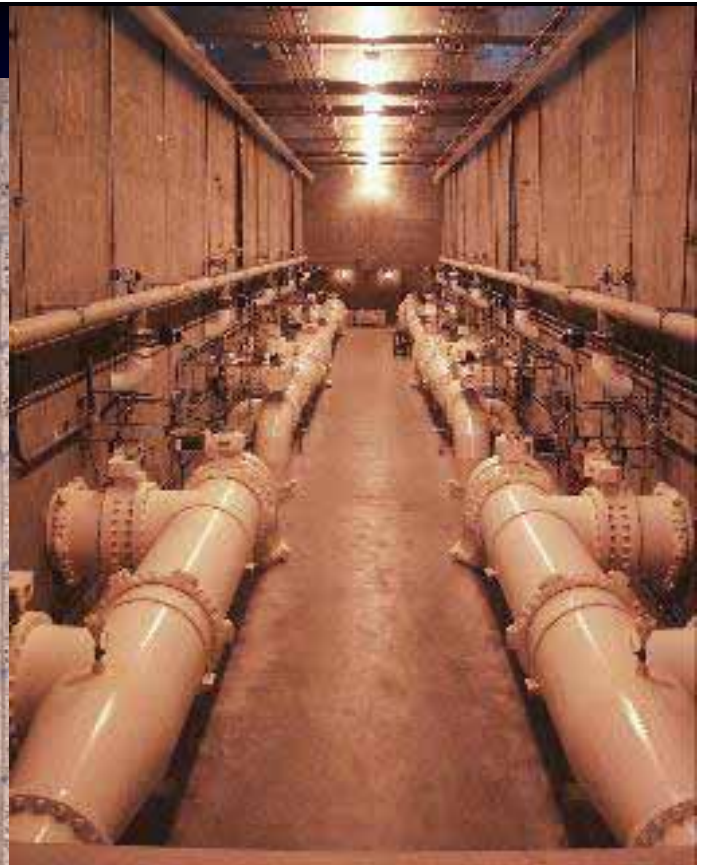


Control Room



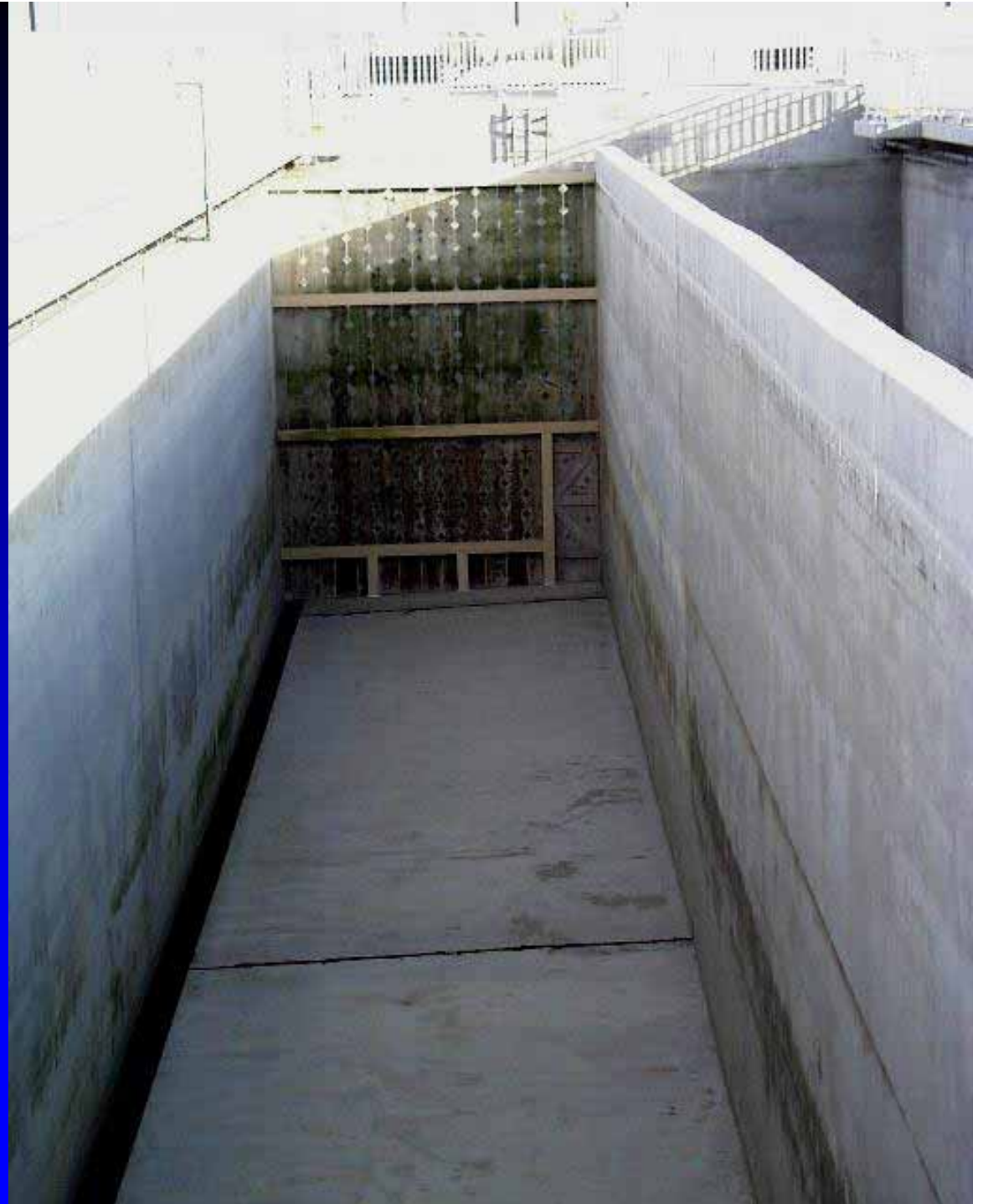


Coagulation Flocculation



Filtration

Disinfection





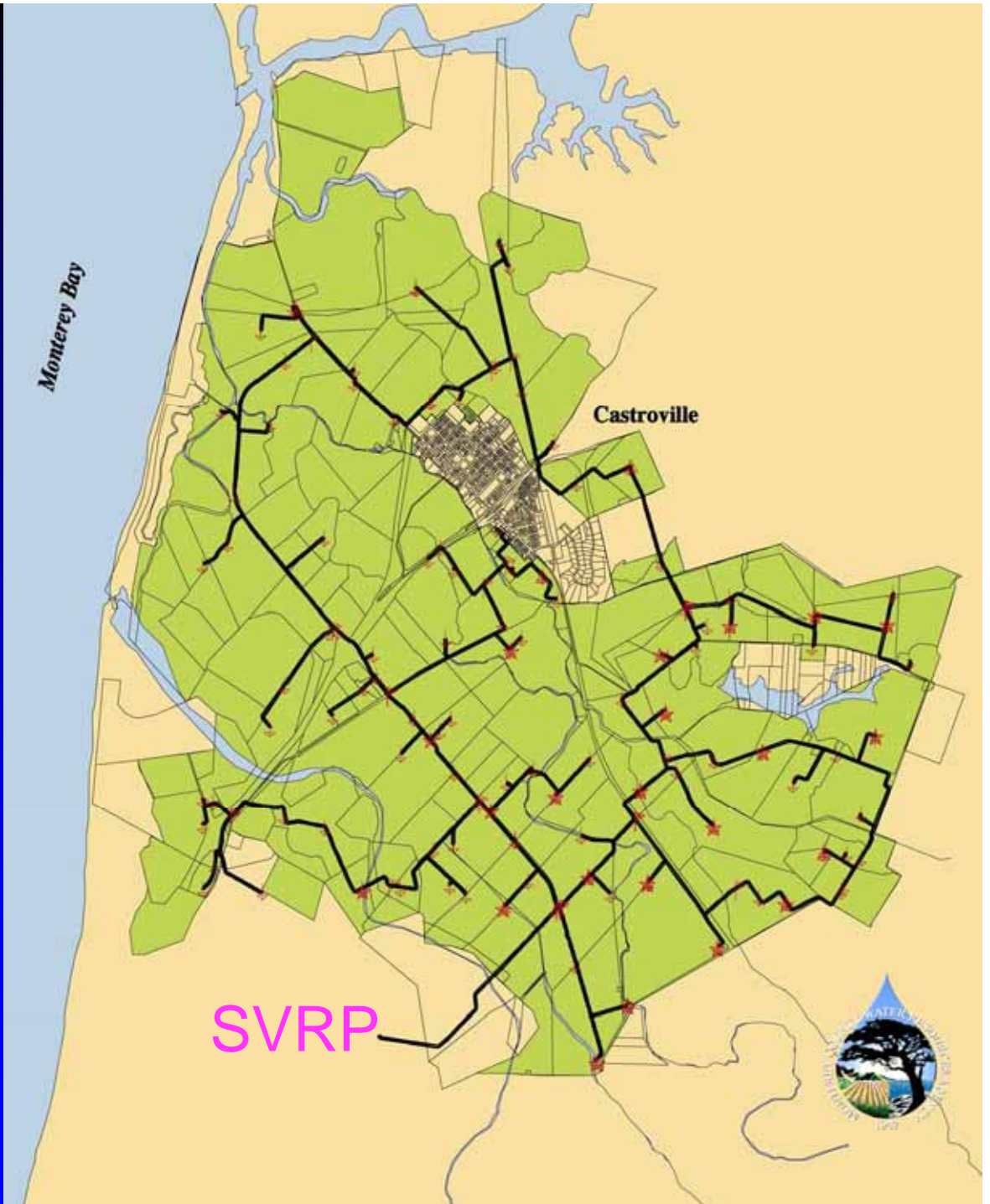
**Storage
Pond**

DISTRIBUTION

Castroville Seawater Intrusion Project (CSIP)

- 48 miles of pipeline
- 21 supplemental wells
- 222 parcels
- 112 turnouts
- 9 monitoring stations
- 3 booster pumps stations
- \$30M Treatment Plant and \$37M Distribution System

12,080 acres







Turnout Without Electrical Power

Major Crops Grown

Artichokes



Strawberries



Lettuce



Cauliflower



Broccoli



Celery



Furrow irrigation



Sprinkler irrigation





Surface drip irrigation

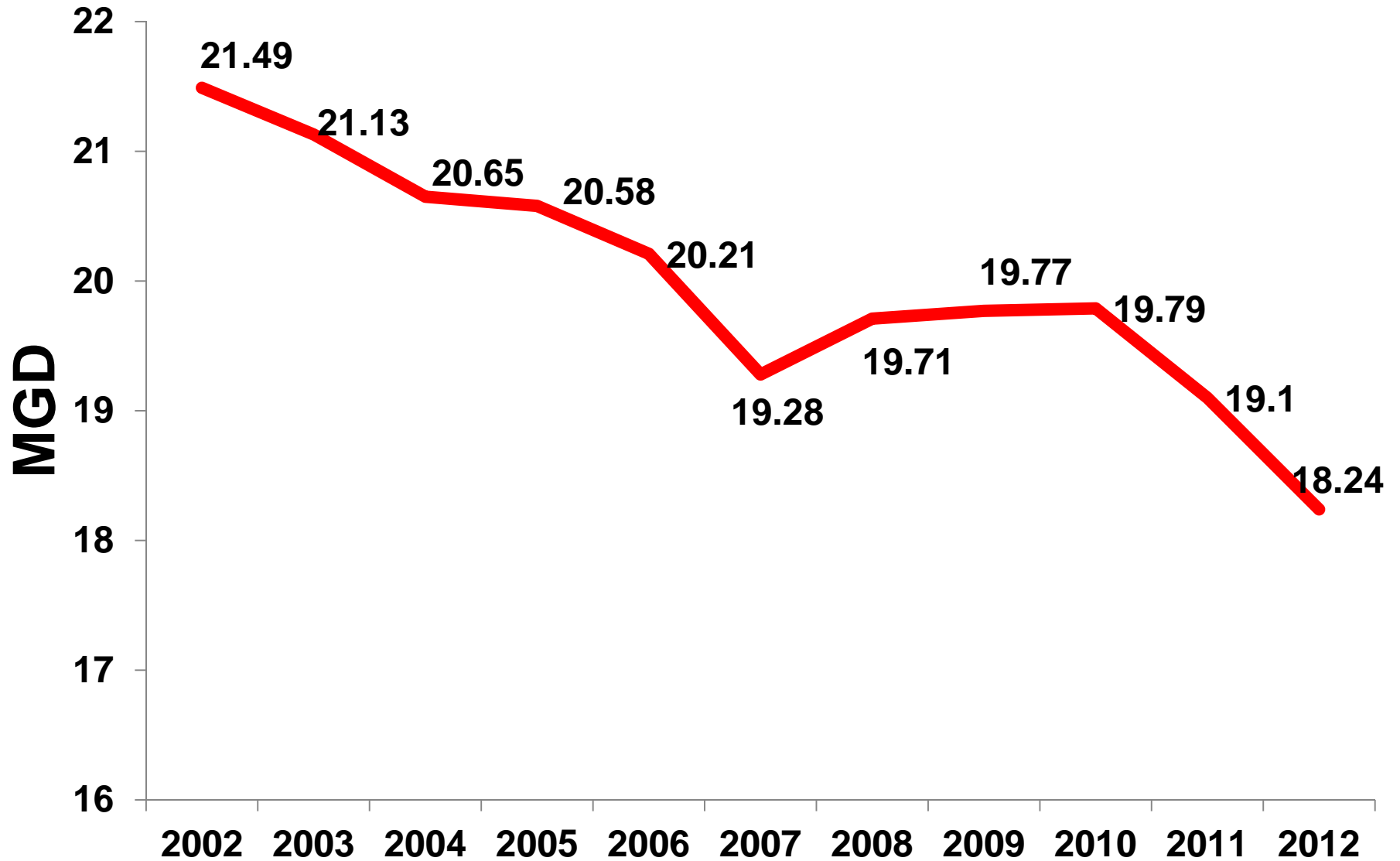
Buried drip irrigation



Organic Crops

- Artichokes
- Strawberries

Annual Average Sewage Influent



Why Recycled Water

- **Safe! No Food or Personnel Safety Issues**
- **Meets Leafy Greens & Organic Farming**
- **Diversity—Independent Source**
- **Sustainable—Drought Tolerant Supply**
- **Inexpensive as New Water Source**
- **Plant Nutrients**
- **No Yield Loss**





Questions?

***“Changing Wastewater
To Safe Water”***

Bob Holden

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