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
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.”
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
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
- Lettuce
- Strawberries
- Cauliflower
- Broccoli
- Celery
Furrow irrigation
Sprinkler irrigation
Surface drip irrigation
Buried drip irrigation
Organic Crops

- Artichokes
- Strawberries
Annual Average Sewage Influent

MGD

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
831-645-4634
bobh@mrw pca.com