

# Mt. San Antonio College

Water Resource Conservation

# About the College

- 635 Students in 1946
- 50,000 Students in 2014
- 421 Acres
- 75-Acre College Farm
- 40 Acres of Range Land for Grazing
- 22 Acres of Wildlife Sanctuary
- 18 Acres of Athletic Fields

# Water Sources

- Three Valleys municipal Water District
  - Allowance of 600 acre feet per year
- Three Groundwater Wells
  - Produce up to 90 acre feet per year
- One Million-Gallon Potable Water Storage
  - Provides a three-day supply at peak use
- Potential Sources of Reclaimed Water
  - Walnut Valley District

# Historical Water Use Data

- 2002–2006 Average
  - 598 acre feet per year
- 2007-2013
  - 412 acre feet per year
- 30 % Reduction in Potable Water Use
- 16 % Reduction in Total Water Consumption

# Conservation Efforts

- Water Reclamation
  - Rehabilitated Three Ground Water Wells in 2007
  - Well Water Production of 90 Acre Feet Per Year
  - Non-potable Water Uses
    - Soccer Fields
    - Baseball Field
    - Wildlife Sanctuary
  - Two New Wells in Development Phase

# Technology Based Conservation

- Waterless and Water-Saving Fixtures
  - Low-flow and no-flow fixtures
  - Reduced-flow faucets
  - Dual-flush units
- Computerized Irrigation Controls
  - Responds to weather data
  - On-campus weather station
  - Irrigation only when necessary

# Landscape Design

- California Native Plantings
  - Thirty New Facilities Since 2003
  - All Landscape Designed for Water Conservation
  - Reduce Turf Areas on Campus
- Agricultural Sciences Facility
  - Collaborative Design
  - Involve Faculty and Grounds Staff
  - Provide Demonstration Area for Students





PLANT  
PROPAGATION

HORTICULTURE  
PREP.

EQUIPMENT TECHNOLOGY  
& WATER MANAGEMENT



# Ongoing Maintenance

- Irrigation System Maintenance
  - Reduce Waste by Monitoring Water Use by Zone
  - Regular Adjustments to Irrigation Equipment
- Ongoing Program to Mulch Landscape Areas
  - Reduce Evaporation
  - Improve Water Penetration into the Soil
  - Reduce Competition by Unwanted Species

# Achievements – 30% Reduction

<b>CAMPUS WATER USE ZONE</b>	<b>% of Total</b>	<b>2002 – 2006 Average 598 AF Per Year</b>	<b>% of Total</b>	<b>2007 – 2013 Average 412 AF Per Year</b>	<b>Water Savings 187 AF Per Year</b>
<i>Athletic Fields</i>	22%	132 AF per year	23%	94 AF per year	38 AF per year
<i>Wildlife Sanctuary</i>	10%	59 AF per year	3%	14 AF per year	45 AF per year
<i>Range and Pasture</i>	18%	108 AF per year	18%	73 AF per year	35 AF per year
<i>Campus Irrigation and Domestic Use</i>	50%	299 AF per year	56%	231 AF per year	68 AF per year

# Future Efforts

- New Wells Will Save Up to 60 Acre Feet per Year
  - Use for Pasture and Range Land Irrigation
- Potential Reclaimed Water Uses
  - New Landscape Areas and Protected Habitat Zones
  - Solar Site Slope Irrigation
- Continued Participation with LEED Program
  - New Facilities Will be as Water-Efficient as Possible
- New One Million-Gallon Storage Facility
- New State Water Savings Requirements
  - Further Reduction in Water Use to 345 AF Per Year