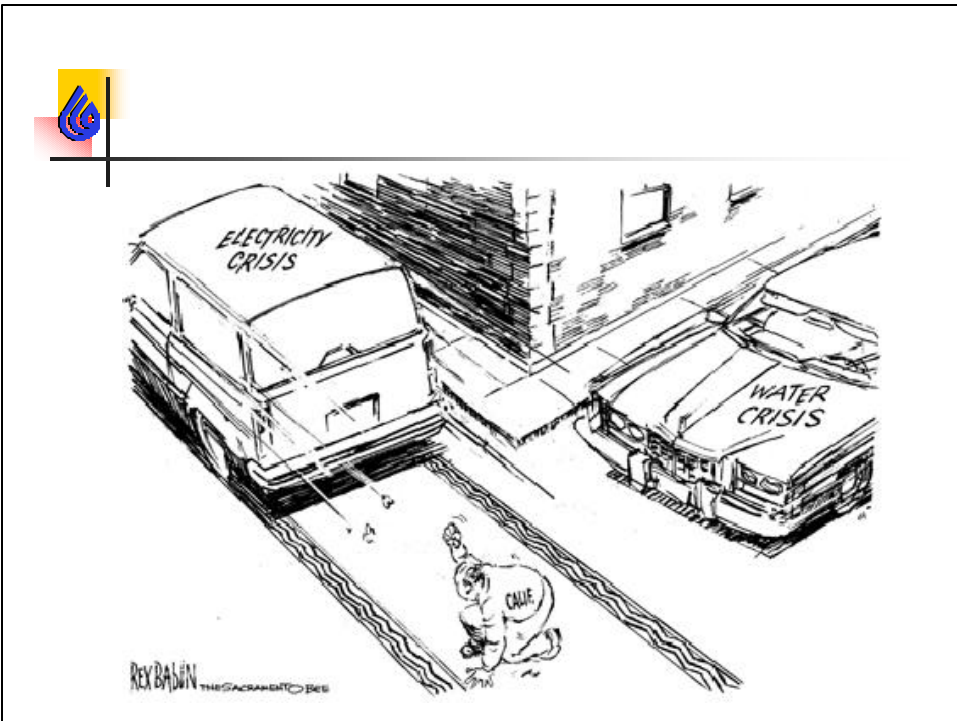




# San Diego County Water Authority

Water Supply: Water for the 21st Century  
Clean Water Summit  
June 21, 2002





## Introduction

### Water Supply in San Diego Region

---

- Semi-arid region
- Limited local supply
- Reliance on imported water supplies
- Population increase of 1.0 million by 2020
- Use existing water supplies efficiently
- Secure additional supplies



## San Diego County Water Authority

---

- Formed in 1944
- Wholesale water agency
- Purchase water from Metropolitan Water District (MWD)
- Serve 23 member agencies
- 34 member Board of Directors
- Provide 75% to 90% of water supply

## Sources of Imported Water from MWD



## Distribution System and Service Area

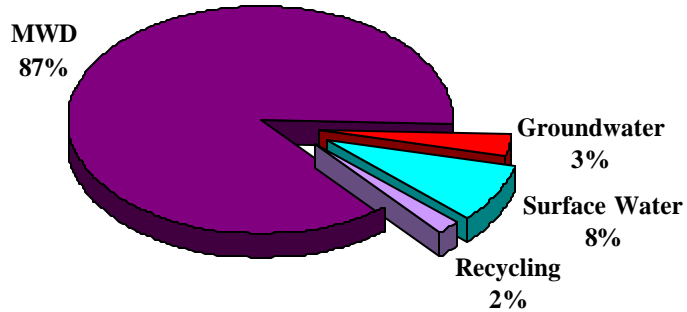


- **PIPELINES:**
  - 263 Miles (Gravity Flow)
  - 3'-9' Diameter
  - 119 Service Connections
- **SERVICE AREA:**
  - 909,000 Acres
  - 97% of County Population





## 2001 Regional Water Supply Sources

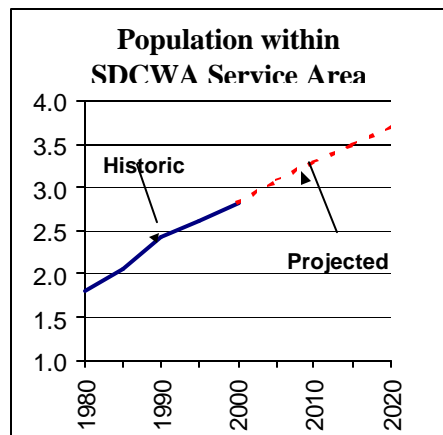


**Total Water Use: 673,700 AF**  
**Conservation: 28,200 AF**



## Population

- SANDAG Projections
  - 2020 Cities/County Forecast
- Project close to 1 million additional people by 2020
- 2020 Projection is 3.7 million people

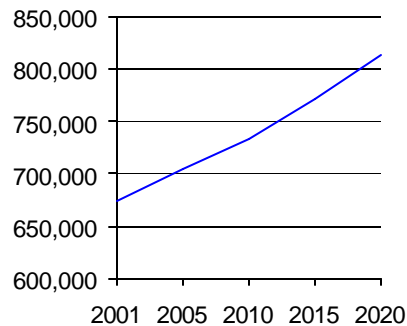




## Water Demands

- Based on SANDAG Regional Growth Forecasts
- Total projected demand increase from 673,700AF to 813,000AF
- Estimated water savings of 93,200AF by 2020

**Normal Year Water Use Forecast  
Adjusted for Conservation (AF)**



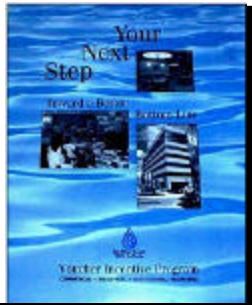
## Development of Proposed Water Resources Mix

- Diversify supplies
- Identify local and imported supplies to meet future demands
- Secure reliability of existing imported supplies
- Maximize efficient use of existing resources to the greatest extent possible



## Water Conservation Programs

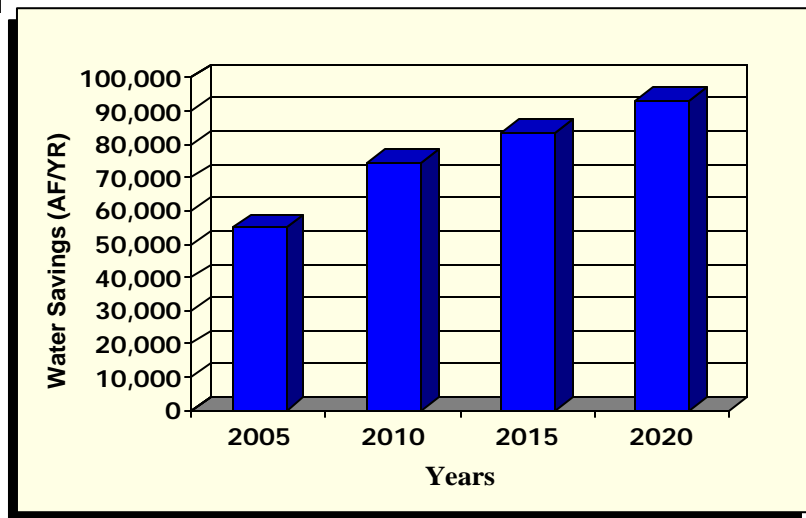
- ULFT Voucher Programs
- Residential Survey Program
- Agricultural Audits Program



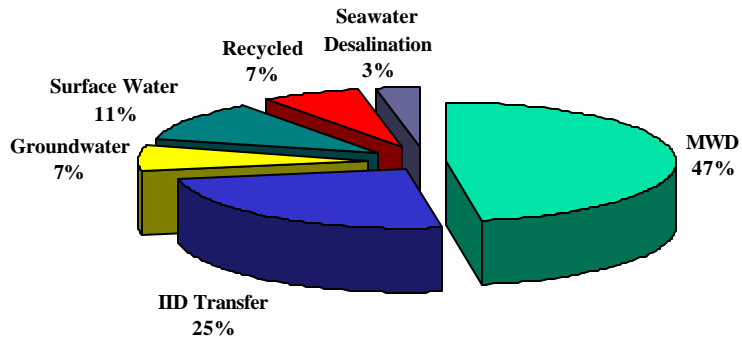
- Commercial, Industrial and Institutional Voucher Program
- Horizontal-Axis Clothes Washer Voucher Program



## Conservation Savings



## SDCWA Future Water Supply Mix (2020)



**Total Projected Supplies: 813,000AF/YR**  
**Conservation: 93,200 AF/YR**

## SDCWA/IID Water Conservation and Transfer Agreement

- Agreement approved in 1998
- Farmers voluntarily conserve water
- 130,000 to 200,000 AF/YR
- 45-year term; 30-year extension
- Price indexed to MWD rate with discount



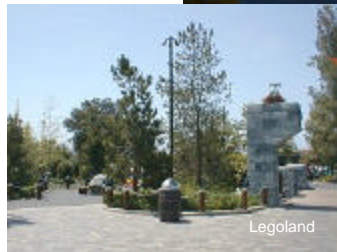
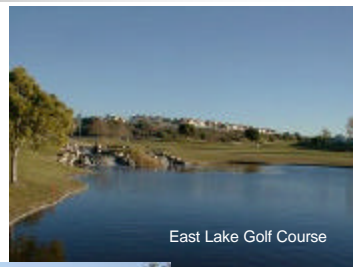
## SDCWA/IID Transfer Agreement

- Key element of California's 4.4 Colorado River Water Use Plan
  - Reduce dependence on Colorado River water
- Contingencies
  - Complete environmental documentation
    - Key challenge is environmental protection of Salton Sea
  - SWRCB Permit
- Deliveries projected to begin in 2003



## Water Recycling

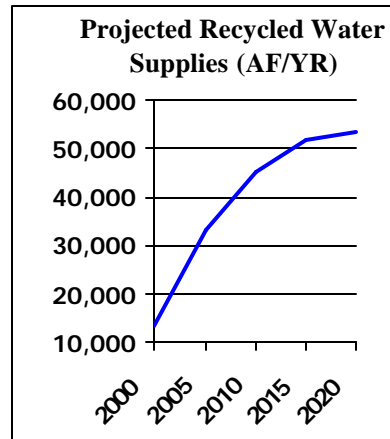
- Wastewater recycled for non-potable reuse
  - Landscape irrigation





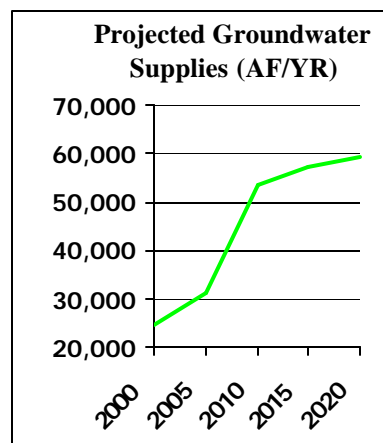
## Existing and Projected Recycled Water Supplies

- 20 existing and planned projects
- 53,000 AF/YR by 2020



## Existing and Projected Groundwater Supplies

- Types of projects:
  - Extraction and disinfection
  - Brackish recovery
  - Recharge and recovery
- 13 existing and planned projects
- 59,000AF/YR by 2020





## Potential for Seawater Desalination in San Diego County

- Recent projects (e.g. Tampa) indicate reduced cost
- Improvements in technology
- SDCWA adopted action plan in Jan. 2001
  - Explore opportunities for potential projects
- Potential Carlsbad Desalination Project
  - Feasibility Study completed by Poseidon Resources, Inc.
  - Costs appear competitive with development of other local supplies
  - Exploring options for SDCWA participation

## Proposed Location for Desalination Facility at Encina Power Plant





## Conclusion

---

- Demand for water continues to increase
- Focus on mix of resources to meet future demands
  - Implementation of water transfer
  - Aggressive local supply development
    - Recycling
    - Groundwater
    - Seawater Desalination
- Maximize efficient use of existing resources
  - Protect water quality