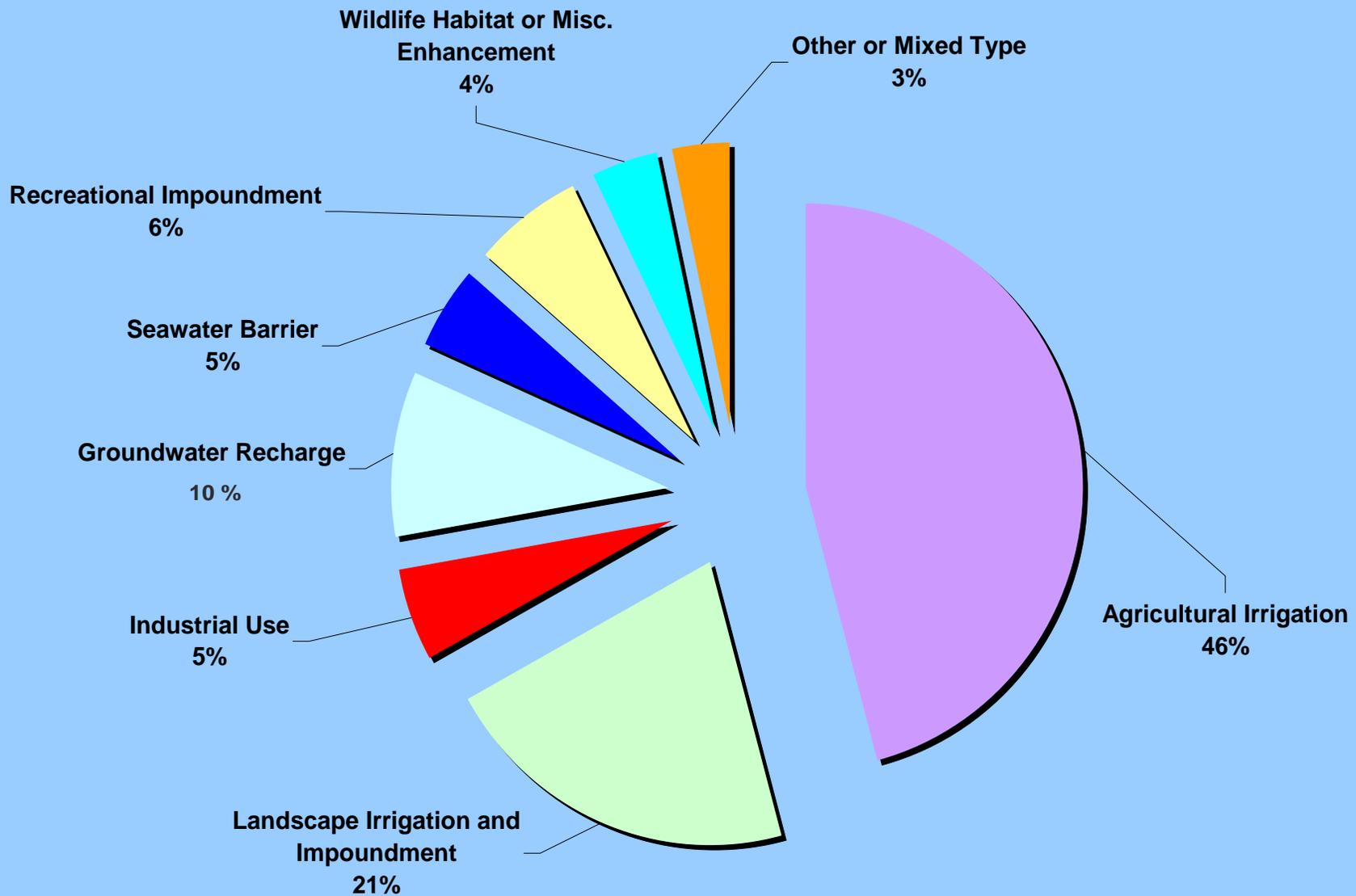


# Recycled Water

## Water Code § 13050

*“Recycled water” means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.*



**Types of Recycled Water Use in California (SWRCB, 2002).**

# DWR Role

## Technical Assistance

- Provide technical knowledge on water recycling
- Respond to questions from interested parties on permitting issues, public health regulations, and types, locations, and amounts of water reuse occurring.
- Disseminate information on recycling issues

## Education

- Participated in the Sacramento State focus group on the Master of Science in Civil Engineering degree.
- Participated in the design and production of an activity booklet for fifth grade students, entitled Give Water A Second Chance... Recycle It, as a member of the WaterReuse Education Committee

## Financial Assistance

- Financed two research projects with local agencies and University of California Davis to optimize the energy needs in the treatment and use of recycled water.
- Administer the Integrated Regional Water Management Program (IRWMP) of which water recycling is a component.
- Urban Water Management Plans – Recycle Water reporting requirements.

# DWR Role

## Recycled Water Task Force's recommendations

- Informed over 50 agencies and organizations of their responsibilities in addressing the RWTF recommendations
- Participates in public and agencies workshops, meetings, and hearings to further the implementation of the RWTF
- Recycled Water Symbol Code Change (3.3)
- AB 371. Water Recycling Act of 2006  
This law states that State Agencies should implement the Recycled Water Task Force recommendations.  
Pending Appendix J - adoption of Water Recycling Plumbing Code by DWR
- Water Softeners (4.4)  
(Assembly Bill 334 (Goldberg, 2003)  
The law changed giving communities additional flexibility to regulate water softeners.

# Direct and Indirect Recycled Water Use

## Major Recycled Water Uses in California



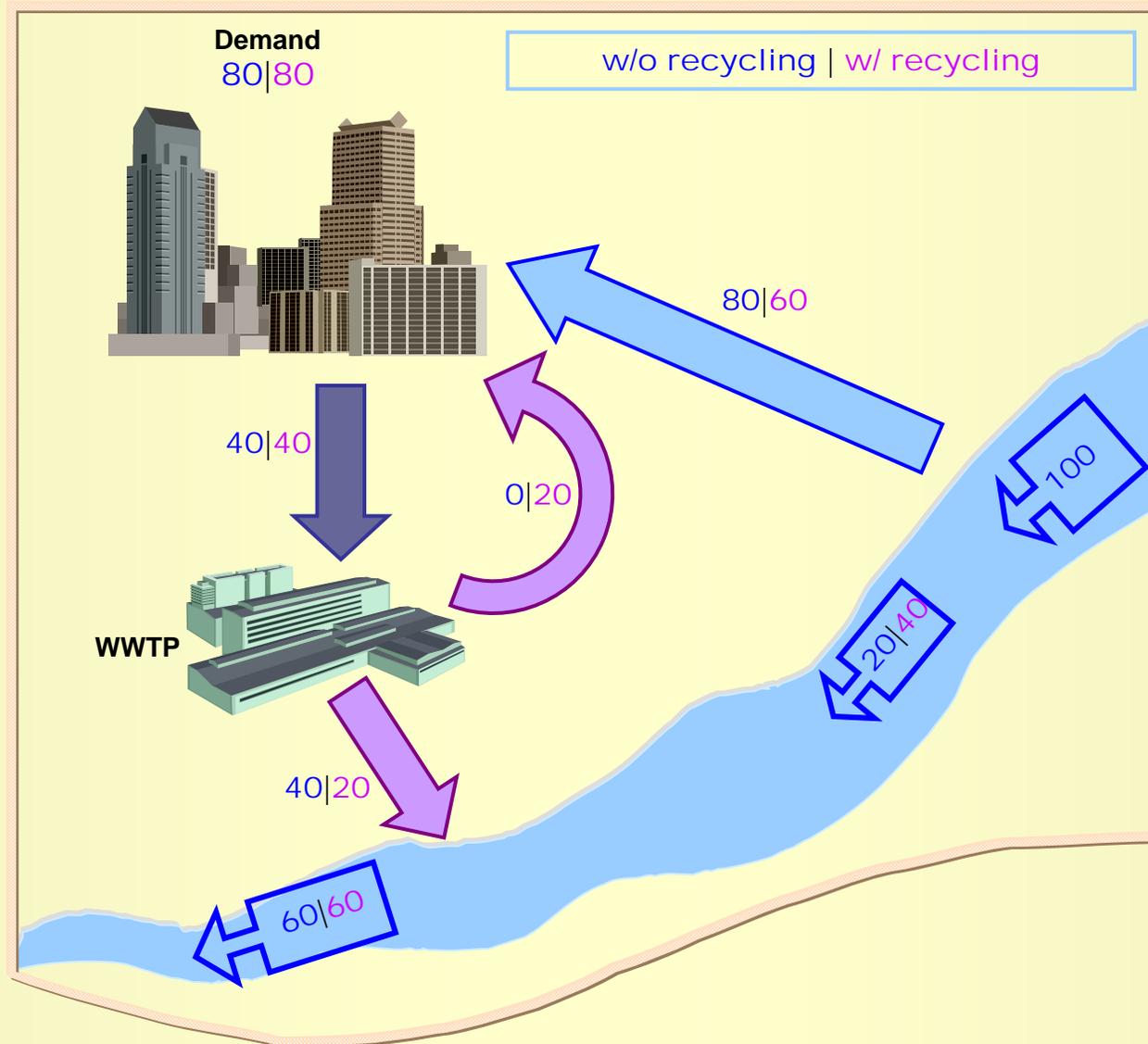
# Background

- Treated wastewater is reused in many areas of the state even when no projects have been constructed with this intent
- Many instream flows and the associated habitat are dependent on wastewater discharge during portions or all of the year
- It is estimated that a high percentage of wastewater in different regions of the Central Valley is reused - most of which in the form of unplanned indirect reuse downstream of the discharge
- Water users downstream from a wastewater discharge may hold rights to the use of the discharged effluent
- Planned water reuse in one community may take away water already allocated to someone else or serving environmental uses

# Recycling Potential

- Potential of additional 1.4 MAF/Y by 2030
- 1.2 MAF/Y as “*New Water*” - that is wastewater being currently discharged to salt sinks
- Recycling is a major component of water use efficiency: water will be reapplied more than once for various uses, thus meeting additional demand without resorting to new supplies

# NEW WATER PARADIGM



# NEW WATER PARADIGM



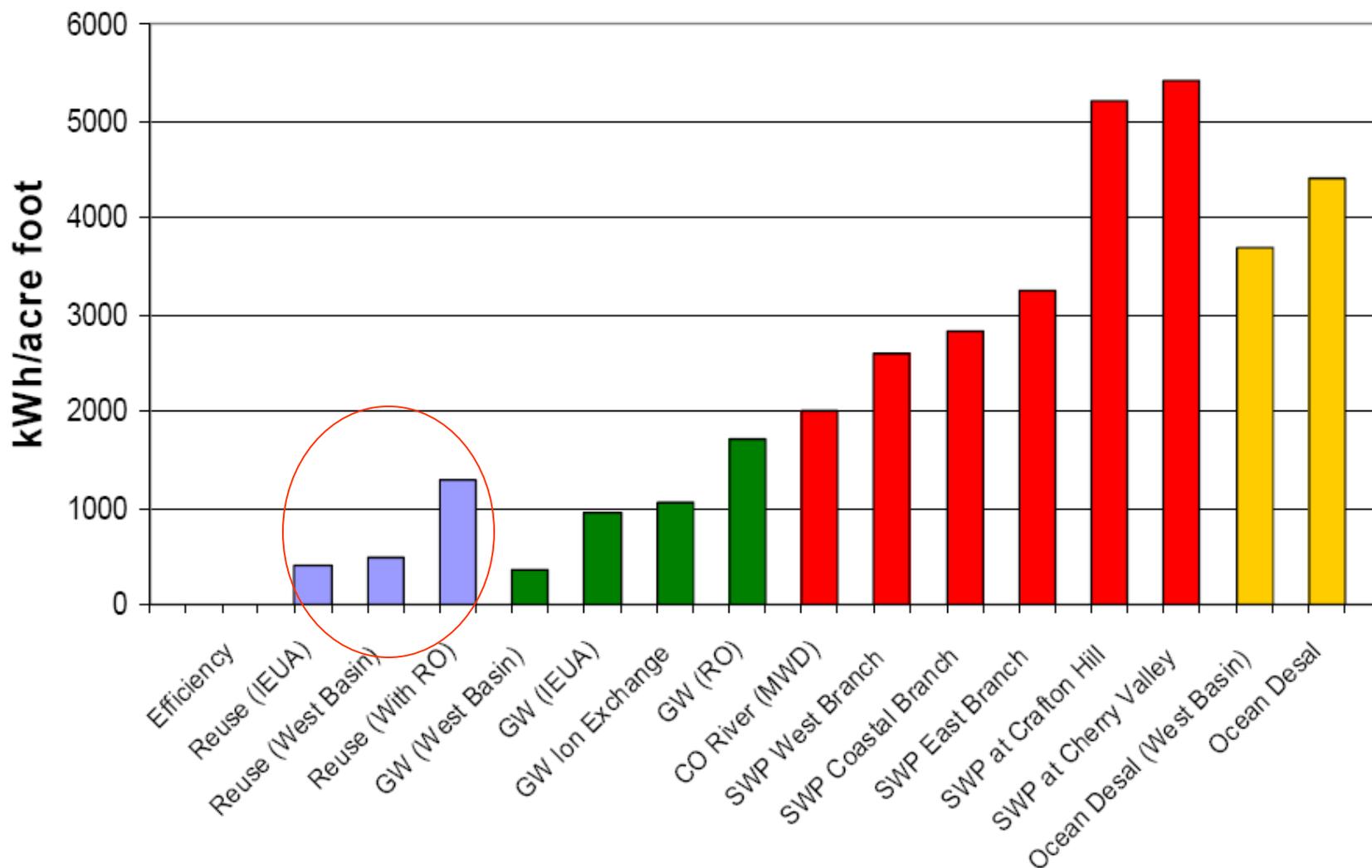
# Recycling Benefits

- **Recycling enhances water supply reliability**
  - Local source
  - Drought proof
- **Recycling enhances water quality**
  - Allows advanced treatment levels beyond discharge requirements
  - Reduces discharges to / and diversions from ecologically sensitive water bodies
- **Recycling frees up potable fresh water supplies**

# Recycling Benefits

- Recycling offsets the need for additional fresh water supplies, thus:
  - less fresh water treatment/pumping
  - less wastewater treatment/pumping
  - less energy usage (i.e., less greenhouse gas emissions)
- Supplemental energy used for treatment (beyond discharge requirements) is significantly lower than the energy needed to pump SWP water or the Colorado River water to Southern California.

## Energy Intensity of Selected Water Supply Sources in Southern California



Courtesy of Dr. Robert Wilkinson, University of California, Santa Barbara

## **“The Role of Recycled Water in Energy Efficiency and Greenhouse Gas Reduction”**

*California Sustainability Alliance, 2008*

- **“Presently, about 415,000 AF of tertiary and secondary wastewater is being discharged by four water agencies in Southern California which could be used as a beneficial water supply. That number is higher – about 580,000 AF/Y – when advanced primary effluent is included. These numbers do not include recycled water that is used to provide water for environmental purposes or for recharging aquifers.”**
- **“The energy and carbon benefits achievable by increasing use of recycled water in favor of more energy intensive options such as seawater desalination are significant.”**

# Ownership of Treated Wastewater

- Water Code § 1210 states that, between the owner of the wastewater treatment plant and the entities contributing the wastewater into the collection system, the owner of the treatment plant has exclusive rights to the treated wastewater.
- This does not mean that the treatment plant owner has exclusive rights to effluent
- Water rights may accrue after discharge
- Discharged water may also support instream or riparian habitat
- Downstream water rights or environmental conditions may supersede the rights of the owner of the treatment plant to the use of the treated effluent.

# Water Rights & Recycled Water Use

- Water Code § 1211 requires that before making a change in the point of discharge, place of use, or purpose of use of treated wastewater, the owner of the treatment plant must seek approval from the SWRCB Division of Water Rights, by filing a Petition for Change for Owners of Waste Water Treatment Plants (Petition for Change).
- Requirement does not apply to changes in the discharge or use of treated wastewater that do not result in decreasing the flow in any portion of a watercourse
- Direct discharges to the ocean are automatically excluded
- Discharges even a short distance upstream from the ocean may present a need for filing a petition.

**SWRCB, Division of Water Rights:** <http://www.waterrights.ca.gov/>

# Will my water rights be affected by using Recycled Water ?

- Existing water rights are not lost, reduced or affected by when the water-right holder uses recycled water instead of using the supply under his water right
- Water Code § 1010: The cessation of or reduction in the use of water under any existing water right as a result of the use recycled water is deemed equivalent to a reasonable beneficial use of the same amount of water under the existing water right. Accordingly, no existing water right will be reduced or lost to the extent that recycled water is used instead of water under the existing water right. Further, the use of recycled water in lieu of surface water is equivalent to maintaining that right and shall constitute beneficial use.