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# Context

- **Physical:**
  - Approx. 1,500 square miles (960,000 acres)
  - NW extension (Colorado Desert sub-region) of the Sonoran Desert
  - Extremely arid, averaging 3-4 in. of rain per year
  - Largely drained by the Whitewater River; flow is intermittent
- **Human:**
  - Approx. 350,000 year-around; highs of 800,000 in January and low 300's in July
  - Over 100,000 acres of irrigated land
  - Golfing Mecca; over 115 irrigated golf courses, many with lakes, in a desert
  - Colorado River Aqueduct and the Coachella Branch of the All-American Canal convey imported surface water into the Valley
- **Temperatures: Favorable Climate**
  - **Summer:** Nighttime lows of 75°F to daytime highs of 112°F
  - **Winter:** Nighttime lows of 46°F to daytime highs of 88°F

What is the #1  
water guzzler in  
the Valley?







# What is the #1 water saver in the Valley?





Since June 2015, our customers have collectively saved more than 40.4 billion gallons of water, averaging 323,200 gallons per household (432 CCF).



# What is the #1 water source in the Valley?



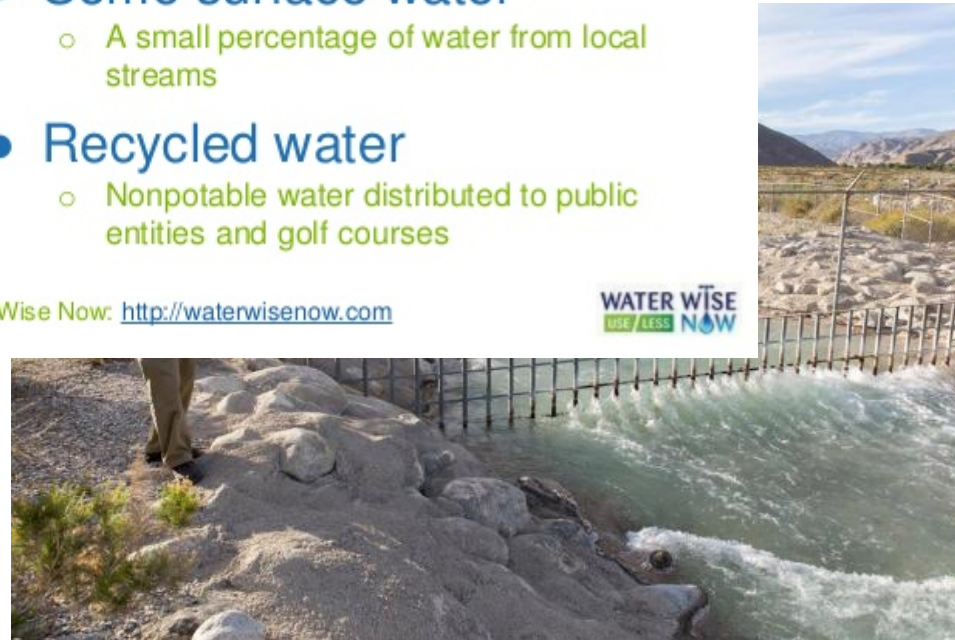
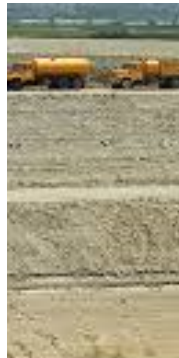
# Water Sources for Coachella Valley



- **Aquifer**
  - Nearly all of the urban water used in CV comes from the aquifer, even if it didn't originate there
- **Colorado River imports**
  - Mostly agricultural water and golf courses
- **Some surface water**
  - A small percentage of water from local streams
- **Recycled water**
  - Nonpotable water distributed to public entities and golf courses

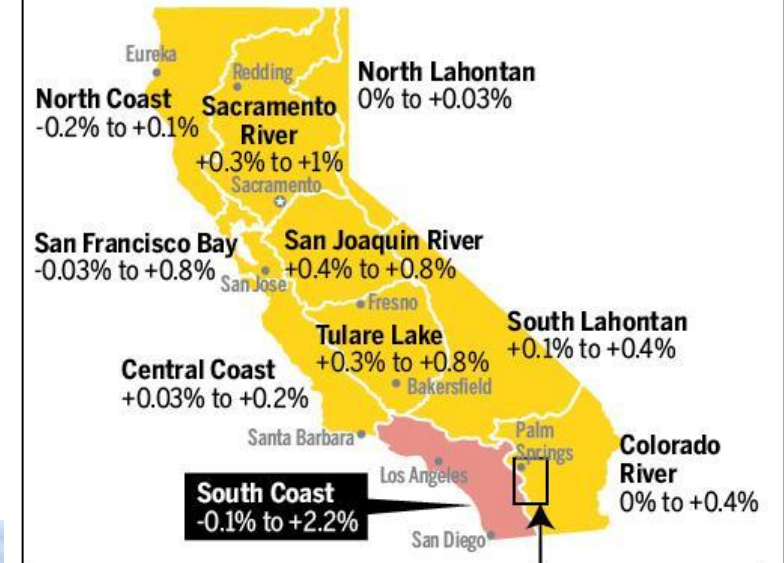
Presentation by Jessyca Frederick of Water Wise Now: <http://waterwisenow.com>

**WATER WISE**  
USE / LESS NOW



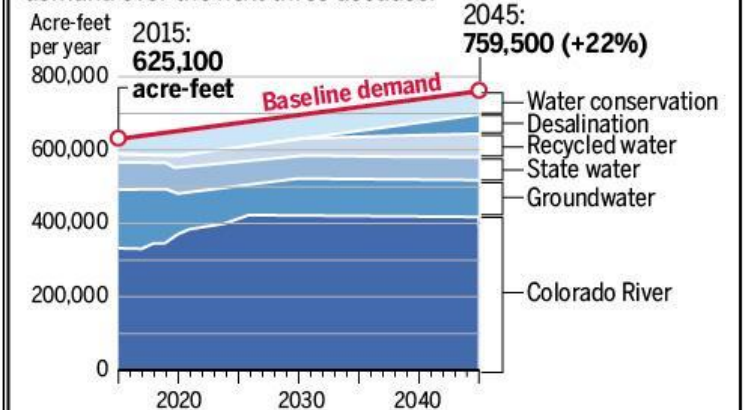
## Growing demand for water

The Los Angeles and San Diego area is projected to have the greatest increase in urban water demand as California's population grows. Here are the projected increases from 2006 to 2050 in the state's 10 hydrological regions:



## Meeting water demand in Coachella Valley

How the region plans to meet the 22 percent increase in water demand over the next three decades:



Sources: Department of Water Resources and Coachella Valley Water Management Plan  
BAY AREA NEWS GROUP

# What is the #2 water saver in the Valley?









**AQUIFER**



# Water Conservation Campaigns:

- **Education**

- School Presentations
- Community Events/HOA Presentations
- Outreach/Marketing
  - Agency Mailers/Collateral
  - CV Water Counts Campaign (Splash)

- **Rebates/Incentives**

- Turf Removal
- Irrigation Equipment Upgrades
- Smart Irrigation Controllers



Indian Water Authority



# Water Conservation Campaigns:

- **Tools/Resources**
  - FREE Water Audits
  - Water Budget Rates
  - Variances
  - Irrigation Watering Guides
  - Landscape Design Guides
  - Workshops
  - Professional Landscape Certification Course
  - Web Portals/Online Tools

- **Local Ordinances**





# Water Efficient Landscape Ordinance

## State Model Water Efficient Landscape Ordinance and CVAG

Evapotranspiration (ET) - must install more water efficient plants

Irrigation Efficiency (IE) - must install more water efficient irrigation systems

Design - Well designed landscape areas can increase irrigation efficiency and reduce evapotranspiration

Ground Cover - soil covering must be >3 inches in depth to reduce surface evaporation and increase soil moisture

Public Medians - no grass allowed

# Statewide Permanent Water Restrictions

- ✓ Watering lawns within 48 hours of a rainstorm
- ✓ Hosing off sidewalks and driveways
- ✓ Washing automobiles without a shut-off nozzle
- ✓ Overwatering landscape to a point that causes run-off
- ✓ Irrigating ornamental turf on public street medians



Conserve... It's a California Way of Life.



## INDOOR TIPS FOR RESIDENTS

**TIP LEGEND:** No cost - Easy to do

Low cost - More effort required

Higher cost - Most effort required

### Water Efficiency Tip

### Estimated Savings

Avoid using running water to thaw frozen foods.	2.5 gallons/minute
Scrape dirty dishes instead of rinsing them before washing.	2.5 gallons/minute
Wash fruits and vegetables in a bowl of water instead of in running water.	2.5 gallons/minute
Keep drinking water in your refrigerator to avoid wasteful running of tap water to cool it off.	2.5 gallons/minute
Run the dishwasher only when full.	2–4.5 gallons/load
Don't leave water running when rinsing dishes.	2.5 gallons/minute
Turn off water when brushing teeth.	2 gallons/minute
Shorten showers.	2.5 gallons/minute
Don't use the toilet as a wastebasket.	1.6 gallons/flush
Wash only full loads of clothes.	15–50 gallons/load
Fix leaky toilets.	30–50 gallons/day/toilet
Fix leaky faucets.	15–20 gallons/day/leak
Install aerators with flow restrictors on kitchen/bathroom faucets.	4.7 gallons/day
Install an instant hot water recirculating system or device.	2.5 gallons/minute
Replace older, inefficient clothes washers.*	20–30 gallons/load
Upgrade to high-efficiency toilets.*	0.3–3.8 gallons/flush
Install a water-efficient dishwasher.	4.25 gallons/cycle

## OUTDOOR TIPS FOR RESIDENTS

**TIP LEGEND:** No cost - Easy to do

Low cost - More effort required

Higher cost - Most effort required

### LANDSCAPE IRRIGATION

#### Water Efficiency Tip

#### Estimated Savings

Water only in the late evening or early morning hours to reduce evaporation and interference from wind.	20–25 gallons/day
Don't overwater!	15–25 gallons/minute; up to 250 gallons/cycle
<ul style="list-style-type: none"> <li>Turn off irrigation systems before rainstorms and leave them off for as long as possible after. Water only after the top 1 inch of soil is dry.</li> <li>Program your irrigation controller to run based on local water agency restrictions. For information about local restrictions, go to <a href="http://WheninDrought.org">WheninDrought.org</a>.</li> </ul>	
Adjust sprinklers to prevent overspray and runoff.	15–25 gallons/day
Repair leaks and broken sprinkler nozzles.*	10 gallons/minute/leak
Add 2" to 3" of mulch around trees & plants to reduce evaporation.	20–30 gal./day/1,000 sq. ft.
Install rain barrels.*	varies
Install a graywater system to help irrigate your landscape.	16 gallons/load
Install water-efficient drip irrigation system for trees, shrubs, and flowers to get water to plant roots more efficiently.	20–25 gallons/day
Upgrade to a "smart irrigation controller" that automatically adjusts watering times based on weather conditions.*	40 gallons/day
Replace your lawn and upgrade to WaterSmart landscape.*	up to 44 gallons/sq. ft. annually depending on climate

### OTHER OUTDOOR IDEAS

#### Water Efficiency Tip

#### Estimated Savings

Use a broom instead of a hose to clean driveways and sidewalks.	8–18 gallons/minute
Collect warm-up shower water in a bucket and use to water plants.	2.5 gallons/minute
When you give pets fresh water, use old water on your landscape.	2.5 gallons/minute
Adjust your pressure reducer (if you have one) to keep pressure between 40 and 60 p.s.i.	Varies
While washing your car, use a self-closing nozzle for your hose.	8–18 gallons/minute
Patronize car washes that recycle water.	15–32 gallons/wash
Fix leaky meters.	up to 1000s of gallons
Repair any leaks around pool and spa pumps.	20 gallons/day/leak
Repair leaking hose bibs.	15–20 gal./day/leak
Install covers on pools and spas to reduce evaporation.	30 gallons per day
Install a pressure reducer if your pressure is greater than 80 p.s.i.	Varies

# Questions? Comments?