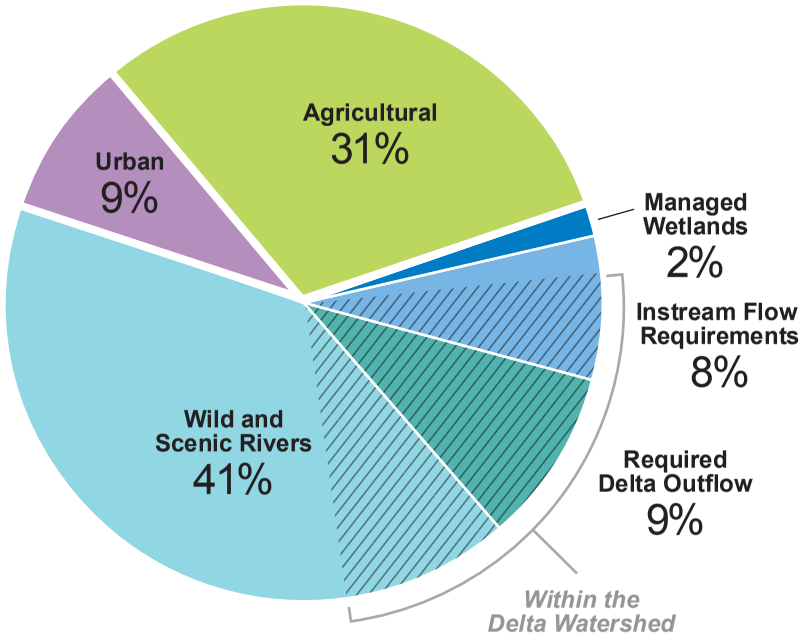
How Water Is Used in California

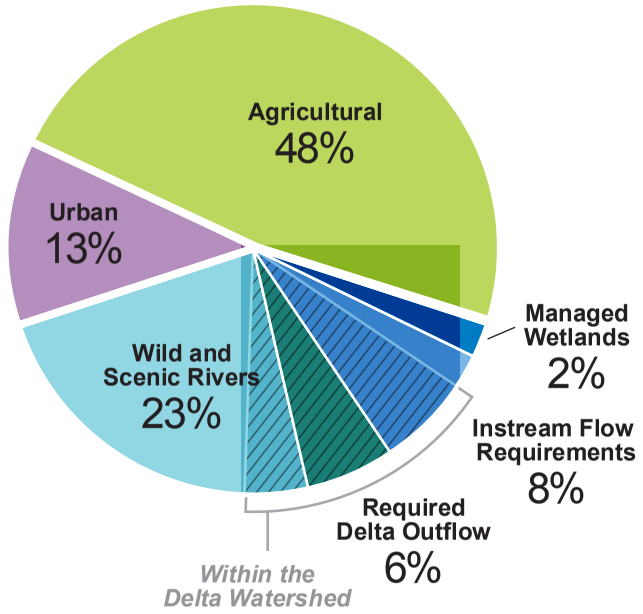
Water Year 2006 (Wet)

108 MAF



Water Year 2007 (Dry)

77 MAF



		Applied Water Use			
		2006 (Wet)		2007 (Dry)	
Water Use	Definition	%	MAF	%	MAF
Urban	*Water for urban purposes, including residential, commercial, institutional, and industrial.*	9%	9.5	13%	9.6
Agricluture	*Water for irrigated agriculture including multi-cropping.*	31%	33.3	48%	36.9
Managed Wetlands	*Water for managed wetland areas.*	2%	1.6	2%	1.6
Minimum Instream Flow Req'ts	*Water within natural waterways as specified in an agreement, water rights permit, court order, FERC license, etc.*	8%	8.5	8%	6.5
Minimum Required Delta Outflow*	*Freshwater outflow from the Sacramento-San Joaquin Delta required by law to protect the beneficial uses within the Delta from the incursion of saline water.*	9%	10.1	6%	4.5
Wild and Scenic Rivers	*Over 2,000 miles of river systems are designated wild, scenic, and recreational under the 1968 National Wild and Scenic Rivers Act and the 1972 California Wild and Scenic Rivers Act.*	41%	44.8	23%	18.1

* *Total Delta Outflow is higher than Required Delta Outflow: 2006=41.3 maf and 2007=6.2 maf (pie chart includes Required Delta Outflow only).*

Quantities reflect surface and groundwater supplies.

Source: Department of Water Resources, California Water Plan 2013

July 2015

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Where Does California's Water Go?

- California's water supports three main sectors: cities and communities, agriculture and environment.
- On average, the proportion of water used by each sector is 10 percent cities and communities, 40 percent agriculture, and 50 percent environment.
- This statewide ratio varies widely depending upon whether a year is wet or dry. In wet years, the proportion that serves environmental purposes can be 60 percent or more, while in dry years that proportion drops to roughly one-third.
- Water often serves double duty: Water allocated for one purpose is often reused for other purposes downstream.

Where Does Water Devoted to Environmental Purposes Go?

- The largest share of water for environmental purposes goes to "wild and scenic" rivers, which are protected by federal and state law from dam development. That share is roughly 23 percent in a dry year, 41 percent in a wet year.
- These "wild and scenic" rivers are primarily on the remote North Coast where there is little agricultural or urban demand. The Eel River, for example, carries a larger volume of water than either the San Joaquin or American River.
- Other environmental water use includes water to maintain habitat for fish within rivers and streams, water that supports wetlands for migratory birds, and water needed to maintain water quality.
- Dramatic changes in California's water use since its statehood have transformed our rivers, streams and estuaries. Today, more than 1,400 dams block fish migration and roughly 95 percent of native vegetation along Central Valley rivers and creeks has been lost, including wetlands that hosted migratory birds.
- One quarter of California's native freshwater fish species are listed as endangered or threatened under state and federal endangered species acts. According to scientific research, in 1975, 12 percent of California's freshwater fish species were either extinct or highly vulnerable to extinction. By 2010, 38 percent of native freshwater species were extinct or vulnerable to extinction.

Much of Our Water Has Multiple Purposes

- Protecting freshwater supplies for over 25 million Californians and millions of acres of farmland requires keeping saltwater out of the inner Sacramento-San Joaquin Delta. Preventing saltwater intrusion protects water quality for Delta residents and the State Water Project and the federal Central Valley Project, which convey and store fresh water for communities and farms across the state.
- Water released from upstream reservoirs that flows into the Delta to repel salt water intrusion often serves a dual purpose -- helping native fish.
- Much of the water dedicated to agriculture in California also supports environmental habitats. For example, flood-irrigated rice fields serve as critical feeding grounds for many species of migratory birds that fly through California.
- Some rivers with stretches that are designated "wild and scenic" eventually flow to the Central Valley and provide water for farms and cities.

Drought Diminishes Supplies to All Sectors

- A recent analysis by the University of California, Davis, Center for Watershed Sciences estimates that in 2015, surface water deliveries to farmers will be reduced by 8.7 million acre-feet. Groundwater pumping will increase an estimated 6.2 million acre-feet, for a net loss of 2.5 million acre-feet to California's farms.
- California communities have been ordered to reduce their overall water use by an average of 25 percent compared to 2013. State regulators tailored mandatory cutback targets ranging from 8 percent to 36 percent for each community based on past conservation efforts.
- In dry years, environmental flows are naturally reduced, as are many regulatory flow and water quality requirements. Some streams have dried up entirely. Others are running slack and warm enough to threaten native fish populations.
- In the past two years of severe drought, flow requirements for environmental purposes also have been reduced by state regulators struggling to balance multiple demands for water. The State Water Resources Control Board has issued 12 separate orders since January 2014 in the Delta alone, reducing flows required for environmental purposes. These reductions made over 400,000 acre-feet of water available for other purposes in 2014, and another 600,000 acre-feet will be made available for other purposes in 2015.
- The state has been forced to rescue threatened and endangered fish species on many rivers across the state. Hatcheries have been evacuated due to low flows that make water temperatures lethally warm.
- Water deliveries to wildlife refuges have been reduced as much as 70 percent, raising concerns about waterfowl overcrowding and disease outbreaks.
- In key streams, the state is encouraging voluntary efforts among landowners and water users to maintain enough flow to allow fish to spawn.