

Reliability of Supply

Historically, RLECWD has relied on groundwater supplies without interconnections to other water suppliers. As long as its supplies are based on groundwater, RLECWD is not susceptible to interruptions of supply from either short term or long term drought because pumping from wells will continue.

As described in chapter 3, Water Supplies, the Water Forum Agreement calls for conjunctive use of surface and groundwater supplies. During dry years, many Sacramento Region water purveyors switch from surface water supplies to groundwater supplies.

For the period 1955-2004, the CDWR California Data Exchange reports the following annual unimpaired flows to Folsom Reservoir on the American River:

Normal "Median" flow:	2,638,000 AF
Single Driest Year: 1977	520,190 AF
Two driest consecutive years: 1976-1977:	$598,260+520,190 = 1,118,450\text{AF}$
Three driest consecutive years: 1990, 1991, 1992:	$1,036,113+ 1,245,495 + 989,570= 3,271,178 \text{ AF}$

The WFA defines the years when the reliance of surface water is curtailed. As defined in the WFA:

- Wet / average years: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 950,000 acre feet.
- Drier Years: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 950,000 acre feet.
- Driest Years (i.e. Conference Years): Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 400,000 acre feet. Conference years are those years which require diverters and other stakeholders to meet and confer on how best to meet demands and protect the American River.
- For the Sacramento Suburban WD (formerly Northridge Water District) diversion of 29,000 of PCWA water, Drier Years are defined as "years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 1,600,000 acre feet."

The CDWR California Data Exchange provides data of unimpaired flows to Folsom Reservoir on the American River from 1955-2004. Examples of unimpaired flows during March through November are:

Wet/ Average years (greater than 950,000 AF)

2000	1,611,051 AF
2002	1,408,173 AF
2004	1,108,772 AF
1995	4,112,730 AF

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2005 Urban Water Management Plan**

Drier years (less than 950,000 and greater than 400,000AF)

1976 484,060 AF
 1988 576,736 AF
 1990 822,331 AF
 1992 604,927 AF
 1994 665,328 AF
 2001 845,617 AF

Driest Years (less than 400,000 AF) 1977 289,740 AF

According to these definitions, summer surface water to RLECWD would be eliminated when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 1,600,000 acre feet. Example years are:

2002 1,408,173 AF
 2004 1,108,772 AF
 1997 1,264,099 AF
 1955 1,215,870 AF

and all the drier and driest years.

During these periods RLECWD may receive winter flows. District use of winter surface water would allow supply to customers and “in lieu” groundwater recharge. During summer periods RLECWD would rely on groundwater. Any wastewater reuse that may have been developed for delivery within the service area would continue and would supplement the groundwater. To better support public relations outreach with other water suppliers in the region, water shortage stages will be implemented to reduce customer demand.

Table 8 – Influences Potentially Impacting Supply Availability

Supply	Legal	Environmental	Water Quality	Climatic
Surface Water	Water Forum Agreement			Inflow to Folsom Reservoir
Groundwater			Contamination plume migration	
Recycled Wastewater	Water rights	Use of Dry Creek stream channel to transport reclaimed water		