

**MWD Water Transactions with Member Agencies and State Water Project Water Conditions – 1990 to 2019**

*Highlighting shows years in which annual runoff resulted in low SWP allocations, whether or not a drought was discussed*

<b>Calendar Year</b>	<b>MWD Water Transactions (million acre-feet)</b>	<b>Water Year Classification</b>	<b>Drought Discussed?</b>	<b>SWP Allocation</b>	<b>Further Information/Source</b>
1990	2.57	critical (Sac) critical (SJ)	Yes	100% M&I 50% Ag	“In 1990 California experienced its fourth consecutive year of drought—a drought that critically affected SWP’s operations.” <i>Source: DWR Bulletin 132-91; p.115</i>
1991	1.81	critical (Sac) critical (SJ)	Yes	30% M&I 0% Ag	Drought Action Team established by Governor’s Executive Order No. W-3-91 signed in February 1991 but no statewide declaration of emergency was made for the 1987-92 drought. <i>Source: DWR; 2000, July; <u>Preparing for California’s Next Drought: Changes Since 1987-92</u> ; pp. 29-31</i>  M&I allocation was as low as 10% on February 23 but was increased to 20% on April 11 as a result of the “March Miracle”, and in an unprecedented move DWR further increased the M&I allocation to 30% in October. <i>Source: (i) DWR; undated; <u>The 1991 Drought Water Bank</u>; p.1; <a href="http://www.water.ca.gov/waterconditions/docs/10_1991-water_bank.pdf">http://www.water.ca.gov/waterconditions/docs/10_1991-water_bank.pdf</a>; and (ii) <a href="http://www.water.ca.gov/news/newsreleases/2014/013114pressrelease.pdf">http://www.water.ca.gov/news/newsreleases/2014/013114pressrelease.pdf</a></i>
1992	1.94	critical (Sac) critical (SJ)	Yes	45% M&I 45% Ag	Initial allocation of 20% for both M&I and Ag was increased on March 20 to 45% for both M&I and Ag. <i>Source: DWR; 1993, July; <u>California’s 1987-92 Drought</u>; <a href="http://www.water.ca.gov/waterconditions/docs/2_drought-1987-92.pdf">http://www.water.ca.gov/waterconditions/docs/2_drought-1987-92.pdf</a></i>

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1993	1.79	above normal (Sac) wet (SJ)	No	100% M&I 100% Ag	<p>“...the drought was declared officially over as of February 24, 1993...” <i>Source: DWR Bulletin 132-93; p.4</i></p> <p>“In 1993, because of above-average rain and snowfall, [DWR] was able to increase deliveries to 40 percent of the requested amounts in January and 70 percent in March. By April, because additional local water had become available for the first time in several years, some contractors were able to revise their demand downward. That decrease in demand, combined with above-normal hydrologic conditions, allowed other contractors to receive 100 percent of the original amount they requested.” <i>Source: DWR Bulletin 132-94; p.21</i></p>
1994	2.01	critical (Sac) critical (SJ)	Yes	50% M&I 50% Ag	<p>“With below-average precipitation and runoff, the water year was classified as critically dry under SWRCB Decision 1485 criteria, and [DWR] declared the State to be under a <i>drought watch</i>, which lasted throughout the calendar year.” <i>Source: DWR Bulletin 132-95; p.10</i></p> <p>“Because the precipitation for March was extremely low, and project supplies had not reached 2.0 million acre-feet, [DWR], on April 13, 1994, requested that contractors turn back any excess water allocations.” <i>Source: DWR Bulletin 132-95; p.112</i></p>
1995	1.37	wet (Sac) wet (SJ)	No	100% M&I 100% Ag	<p>“On January 14, 1995, [DWR] approved 100 percent of State Water Project contractors’ requests...” <i>Source: DWR Bulletin 132-96; p.108</i></p>

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1996	1.62	wet (Sac) wet (SJ)	No	100% M&I 100% Ag	“Sacramento River Basin unimpaired runoff totaled 22.2 million acre-feet for the water year—121 percent of average. San Joaquin River system unimpaired runoff...was 7.2 million acre-feet—125 percent of average” <i>Source: DWR Bulletin 132-97; p.95</i>
1997	1.77	wet (Sac) wet (SJ)	No	100% M&I 100% Ag	“In early February 1997, [DWR] approved 100 percent of the water delivery requested by the 29 long-term State Water Contractors.” <i>Source: DWR Bulletin 132-98; p.5</i>
1998	1.44	wet (Sac) wet (SJ)	No	100% M&I 100% Ag	“In March 1998, [DWR] announced projected deliveries of 3.19 million acre-feet of entitlement water in 1998, 100 percent of the amount requested by the 29 long-term water contractors.” <i>Source: DWR Bulletin 132-99; p.xxviii</i>
1999	1.78	wet (Sac) above normal (SJ)	No	100% M&I 100% Ag	“In March 1999, [DWR] announced projected deliveries of 3.19 million acre-feet of entitlement water in 1999, 100 percent of the amount requested by the 29 long-term water contractors.” <i>Source: DWR Bulletin 132-00; p.xxviii</i>
2000	2.25	above normal (Sac) above normal (SJ)	No	90% M&I 90% Ag	“In March 2000, [DWR] announced projected deliveries of 3.62 million acre-feet of entitlement water in 2000, 100 percent of the amount requested by the 29 long-term water contractors. Unusually dry conditions beginning in mid-March caused a reduction in approved Table A amounts to 3.42 million acre-feet or 90 percent of contractors’ requests.” <i>Source: DWR Bulletin 132-01; p.xxix</i>

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2001	2.10	dry (Sac) dry (SJ)	No	39% M&I 39% Ag	<p>“[DWR] approved deliveries of 1.65 million acre-feet on December 1, 2000, resulting in initial approved Table A amounts of 40 percent for most SWP contractor requests. Unusually dry conditions caused [DWR] to decrease the 2001 approved Table A amounts...on January 31, 2001. As a result of improvements in water conditions, approved Table A amounts were increased...on March 6...on March 15...on May 4...on May 17; and finally to 1.61 million acre-feet, or 39 percent, on August 16, 2001.”</p> <p><i>Source: DWR Bulletin 132-02; p.xxxi</i></p>
2002	2.43	dry (Sac) dry (SJ)	No	70% M&I 70% Ag	<p>“[DWR] approved deliveries of 824,000 acre-feet on November 30, 2000, resulting in initial approved Table A amounts of 20 percent for most SWP contractor requests. Above average precipitation that occurred in Northern California during December caused [DWR] to increase the 2002 Table A amounts...(45 percent) on January 11, 2002. As a result of improvements in water conditions, approved Table A amounts were increased to...(55 percent) on March 22; ...(60 percent) on March 28;...(65 percent) on May 15; and finally to 2.89 million acre-feet (70 percent) on August 26.”</p> <p><i>Source: DWR Bulletin 132-03; p.xxx</i></p>
2003	2.25	above normal (Sac) below normal (SJ)	No	90% M&I 90% Ag	<p>“On December 3, 2002, [DWR] initially approved 825,375 acre-feet of water for long term SWP contractors, or about 20 percent of their 2003 Table A allocations. As a result of improvements in water conditions, approved Table A amounts were increased to 1.86 million acre-feet (45 percent) on January 16, 2003;...(50 percent) on March 28;...(70 percent) on April 28; and finally to 3.71 million acre-feet (90 percent) on May 16.”</p> <p><i>Source: DWR Bulletin 132-04; p.xxx</i></p>

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2004	2.44	below normal (Sac) dry (SJ)	No	65% M&I 65% Ag	<p>“On December 1, 2003, [DWR] initially approved 1,445,084 acre-feet of water for long term SWP contractors, or about 35 percent of their 2004 Table A allocations. As a result of improvements in water supply conditions and an updated snow survey, approved Table A amounts were increased to 2.06 million acre-feet (50 percent) on January 15, 2004; and finally to 2.68 million acre-feet (projected to meet 65 percent) on March 1.”</p> <p><i>Source: DWR Bulletin 132-05; p.xxxi</i></p>
2005	2.00	above normal (Sac) wet (SJ)	No	90% M&I 90% Ag	<p>“DWR approved deliveries of 1.65 million af on November 30, 2004, resulting in initial approved Table A amounts of 40 percent of most SWP contractor requests. DWR increased the 2005 approved Table A amounts to...60 percent on January 14, 2005. As water conditions improved, approved Table A amounts were increased to...(70 percent) on April 1, 2005,...(80 percent) on April 21, 2005, and 3.30 million af (90 percent) on May 27, 2005.”</p> <p><i>Source: DWR Bulletin 132-06; p.xxxvii</i></p>
2006	2.13	wet (Sac) wet (SJ)	No	100% M&I 100% Ag	<p>“DWR approved an initial Table A allocation of 2.27 maf, or roughly 55 percent of most SWP contractors’ requests for Table A water deliveries, on November 22, 2005. DWR increased the 2006 Table A allocation to...65 percent of requests, on December 14, 2005. As water conditions improved, Table A allocation was increased to...(70 percent) on January 17, 2006;...(80 percent) on March 23, 2006; and 4.13 maf (100 percent) on April 18, 2006.”</p> <p><i>Source: DWR Bulletin 132-07; pp.xlii-xliii</i></p>

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2007	2.39	dry (Sac) critical (SJ)	No	60% M&I 60% Ag	<p>“DWR approved an initial Table A allocation of 2.47 maf, or roughly 60 percent of most SWP contractor requests for Table A water deliveries, on November 30, 2006. The final allocation on May 23, 2007 remained at 60 percent...”</p> <p><i>Source: DWR Bulletin 132-08; p.xl</i></p> <p>“In May 2007, the State saw the first voluntary shutdown of the SWP pumps in the Delta to protect fish. Limited pumping resumed 10 days later, and 5 days after that, pumping was increased to resume water deliveries.”</p> <p><i>Source: DWR Bulletin 132-08; p.xlv</i></p>
2008	2.18	critical (Sac) critical (SJ)	Yes	35% M&I 35% Ag	<p>“In June 2008, the Governor issued Executive Order S-06-08 declaring a Statewide drought, which directed State agencies and departments to take immediate action to address the dry conditions.”</p> <p><i>Source: DWR Bulletin 132-09; p.xxxviii</i></p> <p>“DWR approved 1.04 maf of initial 2008 Table A requests on November 22, 2007, resulting in 25 percent of SWP water contractor requests. DWR increased the 2008 Table A amounts to 1.46 maf, or 35 percent on February 1, 2008.”</p> <p><i>Source: DWR Bulletin 132-09; p.xxxix</i></p>

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2009	1.96	dry (Sac) below normal (SJ)	Yes	40% M&I 40% Ag	<p>“In 2009, with California in its third consecutive year of drought, the Governor proclaimed a state of emergency on February 27, 2009, for the entire State as the severe drought conditions continued, and the impacts were felt well beyond the Central Valley.”</p> <p><i>Source: DWR Bulletin 132-10; p.xxxvi</i></p> <p>DWR approved 0.63 maf on November 29, 2008, resulting in initial Table A amounts of 15 percent of most SWP water contractor requests. DWR increased the 2009 Table A amounts to 1.67 maf, or 40 percent, on May 20, 2009.</p> <p><i>Source: DWR Bulletin 132-10; p.xxxvii</i></p>
2010	1.66	below normal (Sac) above normal (SJ)	Yes	50% M&I 50% Ag	<p>“Even with a return to normal precipitation and reservoir levels, and an above normal Sierra snowpack, SWP deliveries will remain limited due to current restrictions on Delta pumping to protect native fish species. The 50 percent allocation, although a dramatic increase from the amount originally estimated for this year, will still leave many communities, farms and businesses with limited alternative supplies.”</p> <p><i>Source: DWR; 210, June 30; California’s Drought Update; p.11</i></p> <p>“Long-term drought is continuing... Water project allocations remain substantially below normal for the SWP (50 percent of contractors’ requested deliveries) and for parts of the CVP (45 percent for south-of-Delta agricultural contractors and 75 percent for south-of-Delta municipal contractors), reflecting Delta export restrictions.”</p> <p><i>Source: DWR; 2010, September; California’s Drought of 2007–2009; p.2</i></p>

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2011	1.65	wet (Sac) wet (SJ)	No	80% M&I 80% Ag	<p>“...[DWR] today increased the 2011 State Water Project (SWP) water allocation to 80 percent of contractors' requests, up 30 percent from last year's final allocation.</p> <p>““This is very good news,” said DWR Director Mark Cowin. “Near-record precipitation and water content in our mountain snowpack have given us a good supply year. We should not forget, however, that this state can slip back toward drought conditions any given year and conservation needs to be a lifelong habit.””</p> <p><i>Source: DWR; 2011, April; <u>State Water Project Allocation Increased to 80 Percent</u>; DWR Press Release</i></p>
2012	1.75	below normal (Sac) dry (SJ)	No	65% M&I 65% Ag	<p>“[DWR] today estimated it will be able to deliver 65 percent of requested [SWP] water this year. This is up from the 60 percent delivery estimate—or allocation—announced on April 16.</p> <p>“Originally, DWR projected in November that it would be able to supply 60 percent of the slightly more than 4 million acre-feet of SWP water requested, but a dry December, January and February dropped that figure to 50 percent.</p> <p>“A wet March and above-average reservoir storage boosted the allocation back up to 60 percent in April, and today's increase to 65 percent is due to April's wetter-than-usual weather.</p> <p>“A 65 percent allocation is not unusually low.”</p> <p><i>Source: DWR; 2012, May 23; <u>Wet April Boosts State Water Project Deliveries</u>; DWR Press Release</i></p>



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2013	1.95	dry (Sac) critical (SJ)	No	35% M&I 35% Ag	<p>“Snow surveyors today reported that water content in California’s snowpack is only 17 percent of normal, meaning below average water supply this summer.</p> <p>“After a record dry January and February in much of the state, DWR currently projects it will only be able to deliver 35 percent of requested amounts from the State Water Project (SWP).”</p> <p>* * *</p> <p>“In addition to the light snowpack and extended periods of little rainfall, pumping restrictions to protect Delta smelt and salmon are another reason for the low water delivery estimate.”</p> <p>* * *</p> <p>“Reservoir storage will meet much of the state’s water demand this year, but successive dry years would create drought conditions in some areas.”</p> <p><i>Source; DWR; 2013, May 2; <u>Season’s Final Snow Survey Shows Dry Conditions</u>; DWR Press Release</i></p>

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2014	2.02	critical (Sac) critical (SJ)	Yes	5% M&I 5% Ag	<p>Governor Brown Declares Drought State of Emergency, January 17, 2014  <i>Source: <a href="https://www.gov.ca.gov/news.php?id=18368">https://www.gov.ca.gov/news.php?id=18368</a></i></p> <p>“The 2014 Initial Allocation made on 11/19/13 was 5%, but was later reduced to Zero on 1/31/14 when hydrologic conditions turned historically dry. Although this increase from Zero back to 5% will provide much needed relief in meeting critical water needs in 2014, it remains the lowest overall allocation in SWP history. DWR is taking prudent steps in preparing for continued drought conditions should they persist into 2015.”  <i>Source: DWR; 2014, April 18; <a href="#">State Water Project Allocation Increase back to 5 Percent</a>; Notice to State Water Project Contractors; <a href="http://www.water.ca.gov/swpao/docs/notices/14-07.pdf">http://www.water.ca.gov/swpao/docs/notices/14-07.pdf</a></i></p>
2015	1.74	critical (Sac) critical (SJ)	Yes	20% M&I 20% Ag	<p>“Adding to water managers’ concerns during the drought is California’s record-low snowpack, which will contribute little runoff into reservoirs as it melts. Storage in all of California’s major reservoirs currently is far below historical averages for late May. Shasta Lake, the state’s largest, is at 62 percent of that average, Lake Oroville is at 53 percent and New Melones now holds 30 percent of its late May average.”  <i>Source: DWR; 2015, May 29; <a href="#">Emergency Drought Barrier Nears Completion</a>; DWR Press Release; <a href="http://www.water.ca.gov/news/newsreleases/2015/052915.pdf">http://www.water.ca.gov/news/newsreleases/2015/052915.pdf</a></i></p>

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2016	1.68	below normal (Sac) dry (SJ)	Yes	60% M&I 60% Ag	<p>“This allocation increase is made consistent with the current and projected hydrological conditions...DWR considered several factors, including California’s persistent drought evidenced by below normal snow accumulation and continued low storage in SWP facilities located south of the Delta...”</p> <p><i>Source: 2016, April 21; <u>2016 State Water Project Allocation – 60 Percent</u>; Notice to State Water Project Contractors; <a href="http://www.water.ca.gov/swpao/docs/notices/16-06.pdf">http://www.water.ca.gov/swpao/docs/notices/16-06.pdf</a></i></p>
2017	1.43	wet (Sac) wet (SJ)	Yes	85% M&I 85% Ag	<p>Governor issues Executive Order B-40-17 terminating the Drought State of Emergency for all counties in California except Fresno, Kings, Tulare, and Tuolumne.</p> <p><i>Source: 2017, April 7; <u>Executive Order B-40-17</u>; <a href="https://www.gov.ca.gov/wp-content/uploads/2017/09/4.7.17_Attested_Exec_Order_B-40-17.pdf">https://www.gov.ca.gov/wp-content/uploads/2017/09/4.7.17_Attested_Exec_Order_B-40-17.pdf</a></i></p> <p>“Never in nearly a century of Department of Water Resources (DWR) recordkeeping has so much precipitation fallen in the northern Sierra in a water year.”</p> <p><i>Source: 2017, April 13; <u>Northern Sierra Precipitation Sets Water Year Record</u>; DWR Press Release; <a href="http://www.water.ca.gov/news/newsreleases/2017/041317_news.pdf">http://www.water.ca.gov/news/newsreleases/2017/041317_news.pdf</a></i></p>

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2018	1.54	below normal (Sac) below Normal (SJ)	No	35% M&I 35% Ag	<p>“Despite below-average precipitation in water year 2018, most California reservoirs are storing near- or above-average levels of water heading into the 2019 water year.”</p> <p>* * *</p> <ul style="list-style-type: none"> <li>• Much of Southern California ended up with half or less than half of average annual precipitation.</li> <li>• The April 1 statewide snowpack based on over 260 snow courses was just 58 percent of average for water year 2018, a dramatic drop from 159 percent of average for the same date in 2017.”</li> </ul> <p><i>Source: 2018, October 1; <u>Below Average Precipitation for Water Year 2018</u>; DWR Press Release; <a href="https://water.ca.gov/News/News-Releases/2018/Oct-18/Water-Year-2018">https://water.ca.gov/News/News-Releases/2018/Oct-18/Water-Year-2018</a></i></p>
2019	1.28	wet (Sac) wet (SJ)	No	75% M&I 75% Ag	<p>“This winter’s robust storms resulted in above average snowpack and reservoir levels bringing California a much-improved water year from last year...The full reservoirs will provide a healthy buffer for if we return to drier conditions next year.</p> <p>“California’s reservoirs continue to remain above their historical average thanks to the more than 30 atmospheric rivers since the start of the water year. Earlier this month, the statewide Sierra snowpack was 202 percent of normal. It’s California’s fifth largest snowpack dating back to 1950.”</p> <p><i>Source: 2019, June 20; <u>State Water Project Allocations Increase to 75 Percent</u>; DWR Press Release; <a href="https://water.ca.gov/News/News-Releases/2019/June/State-Water-Project-Allocations-Increase-to-75-Percent">https://water.ca.gov/News/News-Releases/2019/June/State-Water-Project-Allocations-Increase-to-75-Percent</a></i></p>

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Sac = Sacramento River System

SJ = San Joaquin River System

MWD water transactions with Member Agencies include water sales, exchanges, and wheeling, and between 1990 and 2019 ranged from 1.37 to 2.57 million acre-feet.