



Folsom Water

July 25, 2023 City Council Meeting



Outline

- Water Supply
- Folsom Reservoir
- Water Rights and Assets
- Water Use
- Challenges
- Opportunities
- 2023 Outlook
- State and City Actions
- City Messaging and Outreach

City of Folsom Water Supply



- Water Supply must be reliable and sustainable
- Why?
 - Public Health and Safety
 - Meet water use demands of current and future City customers
 - Economic development
 - Environmental enhancement
 - Recreational opportunities

Folsom Reservoir

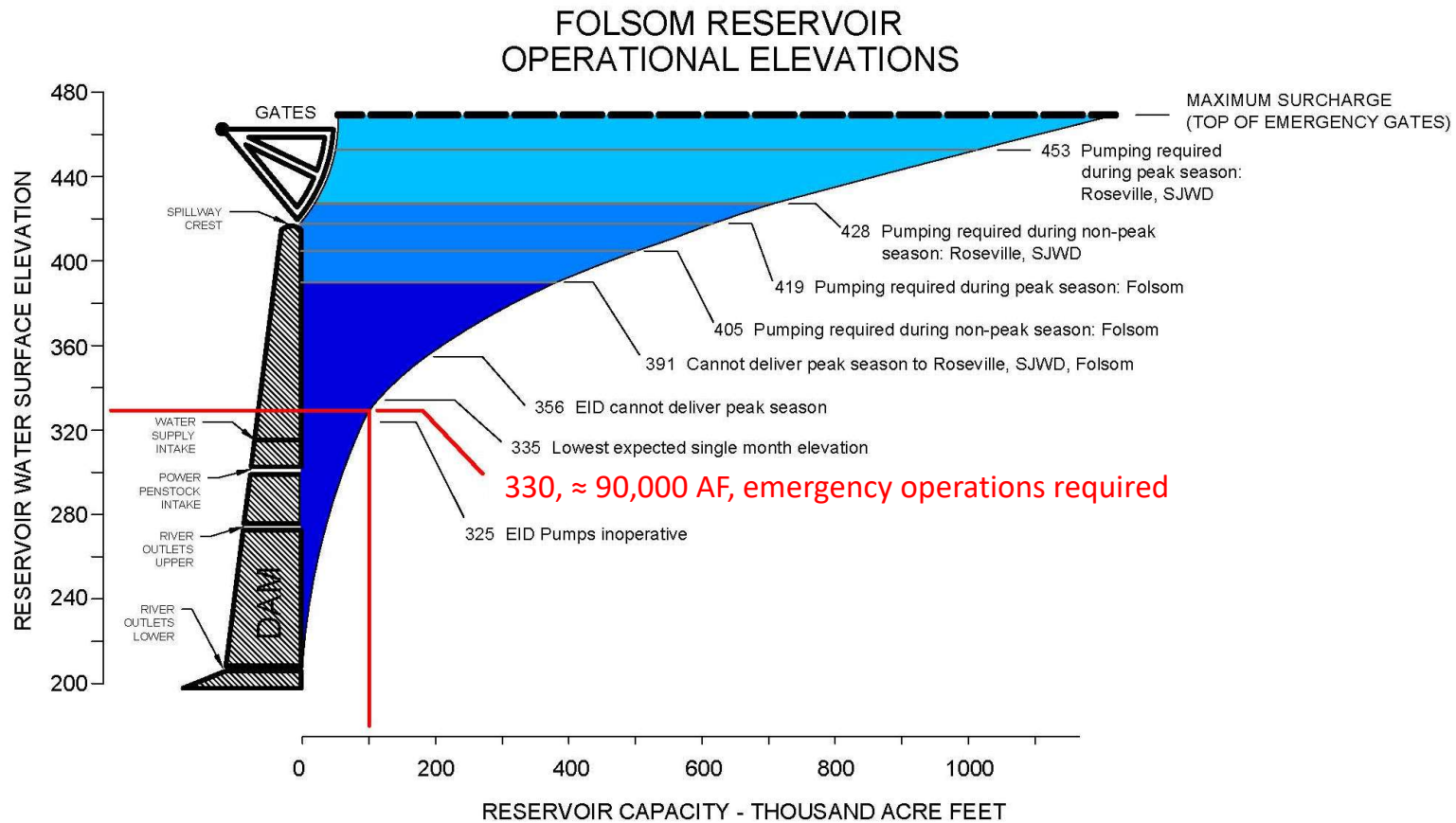


Folsom Dam and Reservoir



- Multi-purpose reservoir
 - Operated by the Bureau of Reclamation
 - Part of the Central Valley Project
- Requirements for water releases
 - Flood control
 - Environmental flows for Lower American River
 - Delta water quality
 - Other water users

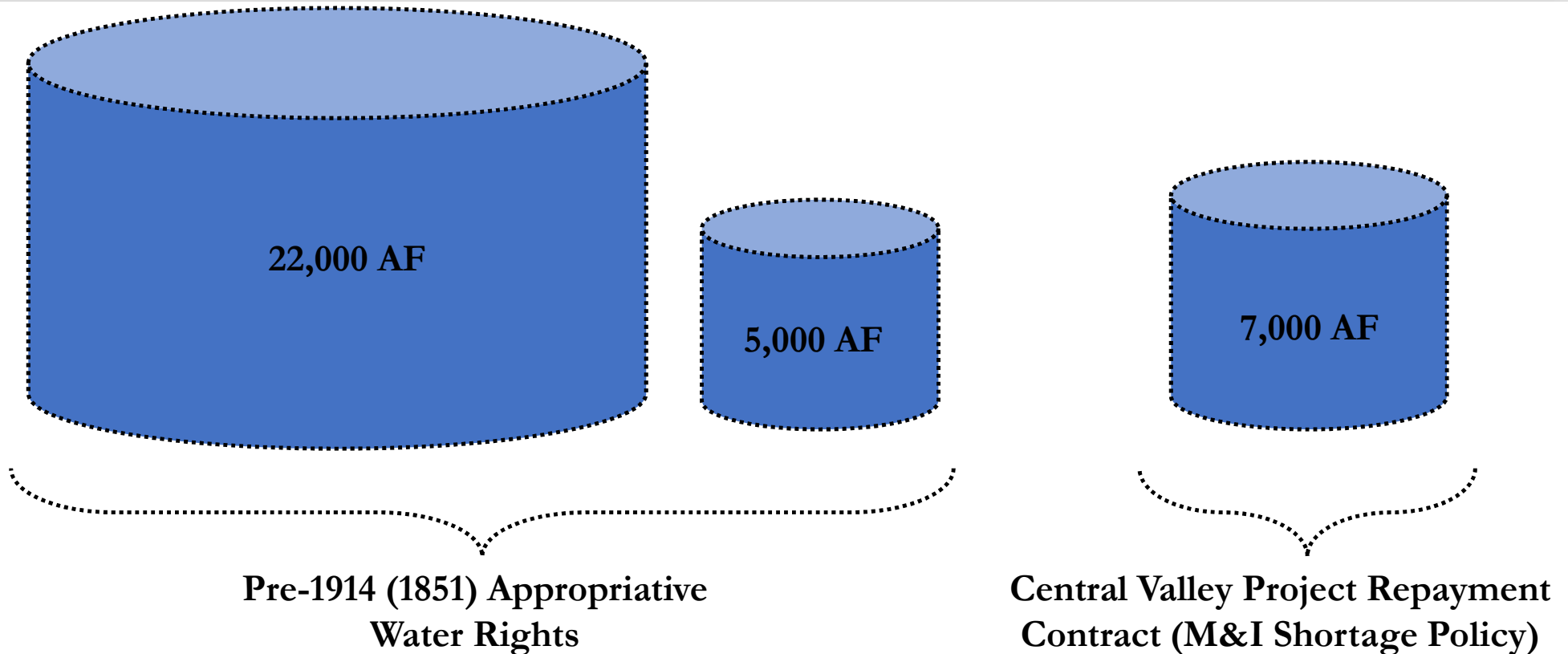
Folsom Reservoir Operations



Folsom Water Treatment Plant



Folsom Water Rights and Contracts



Contract Language

- Each of the following is included in the contracts:
 - Place of use
 - Point of diversion
 - Quantity of water
 - Rate of delivery of water
 - Shortage provisions, if any
 - Payment terms, if any

Pre-1914 Water Rights

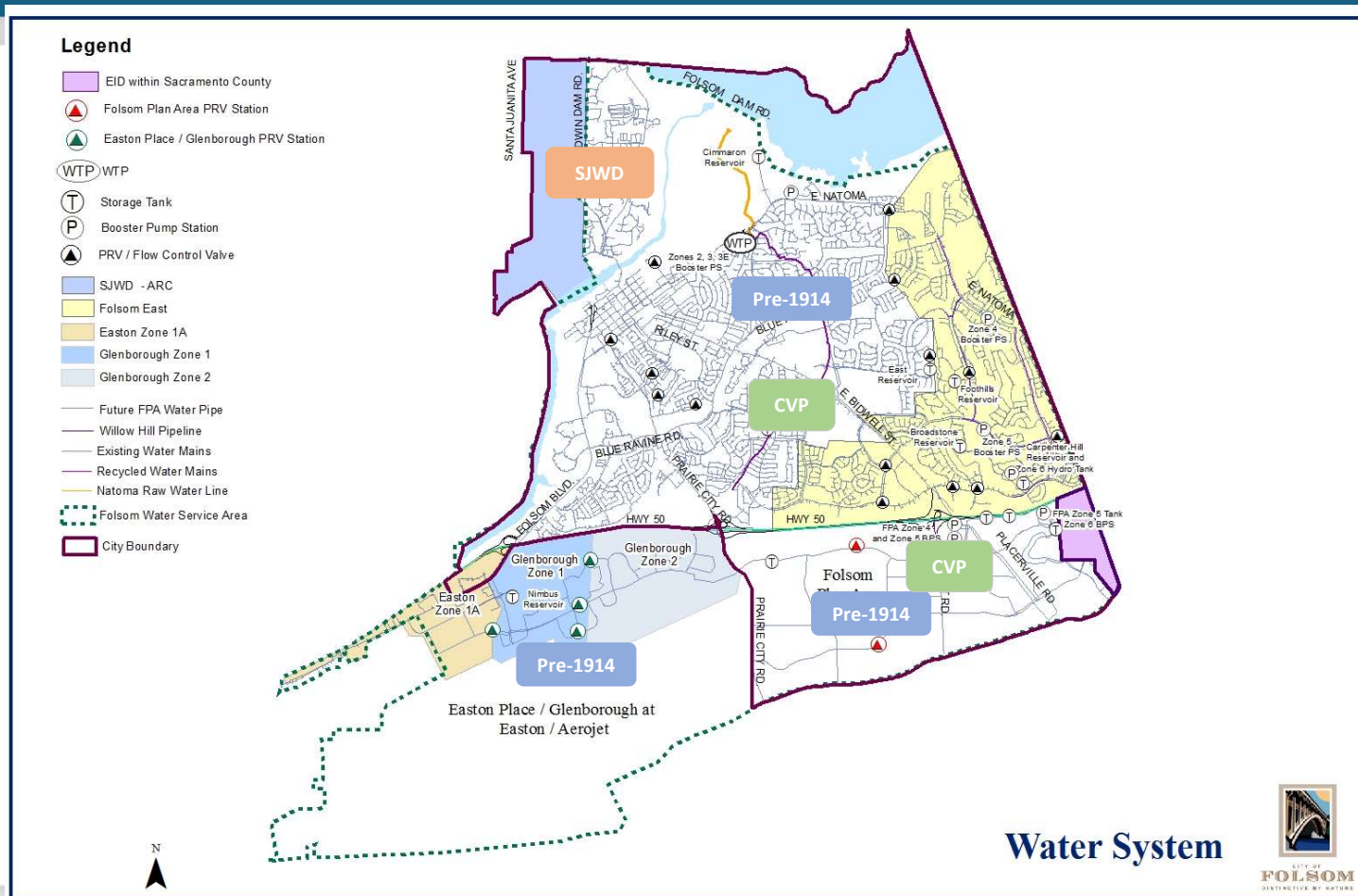
- Dates back to 1851 – Natomas Water and Mining Company
- 1951 – Contract between Natomas Water Company (NWC) and United States for 32,000 AF
- 1964 – Southern California Water Company (So-Cal) purchases 32,000 AF from NWC
- 1967 – Folsom purchases 22,000 AF of So-Cal water
- 1994 – So-Cal reallocates 5,000 AF to Folsom
- Total Pre-1914 = 27,000 AF

Central Valley Project Water

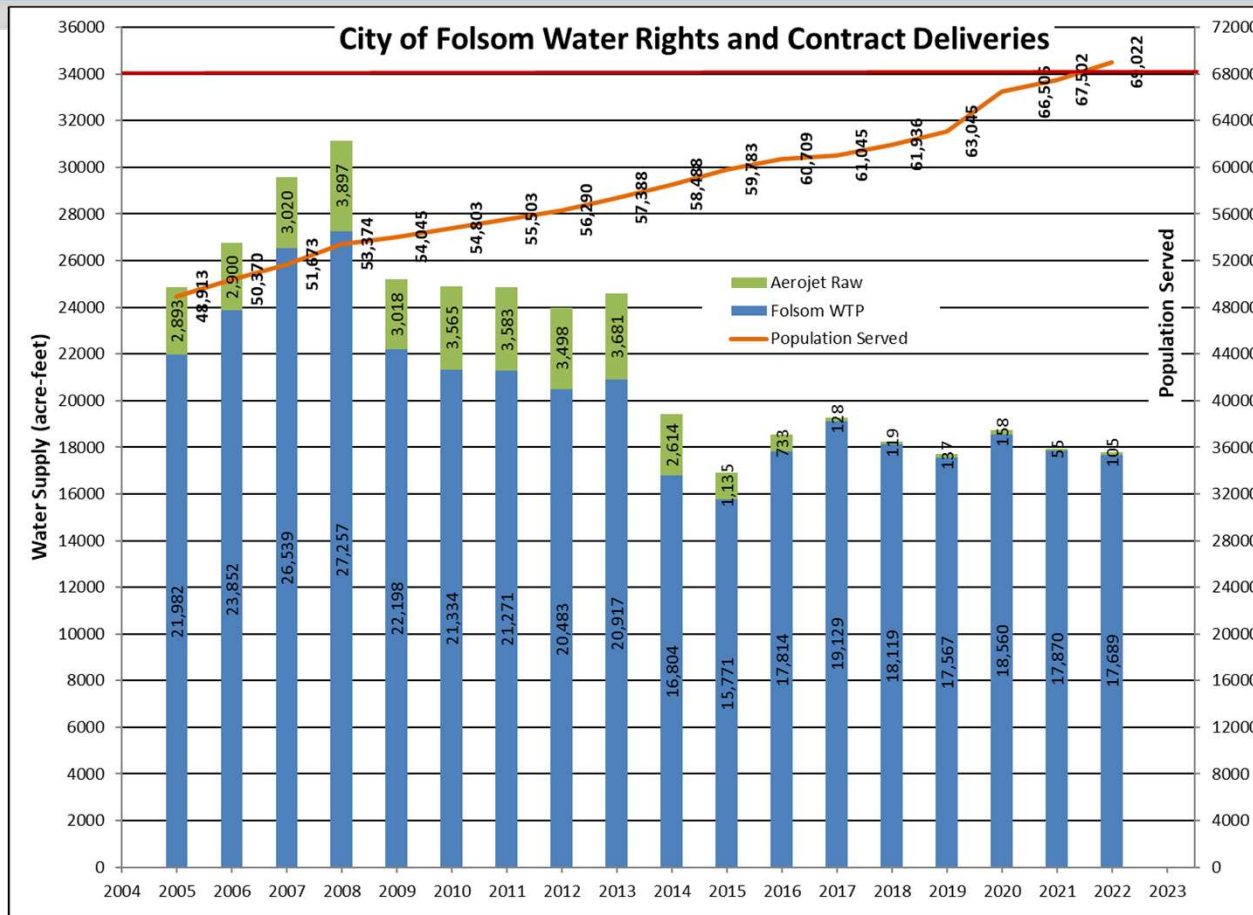


- Section 206 of Public Law 101-514 authorized contract between SCWA and United States Dept. of Interior
- Repayment Contract between Folsom and Bureau of Reclamation for 7,000 AF
- Subject to Reclamation Municipal & Industrial Shortage Policy (up to 75% reduction in certain year types)
- Junior to water rights that existed prior to the development of the Central Valley Project

Place of Use

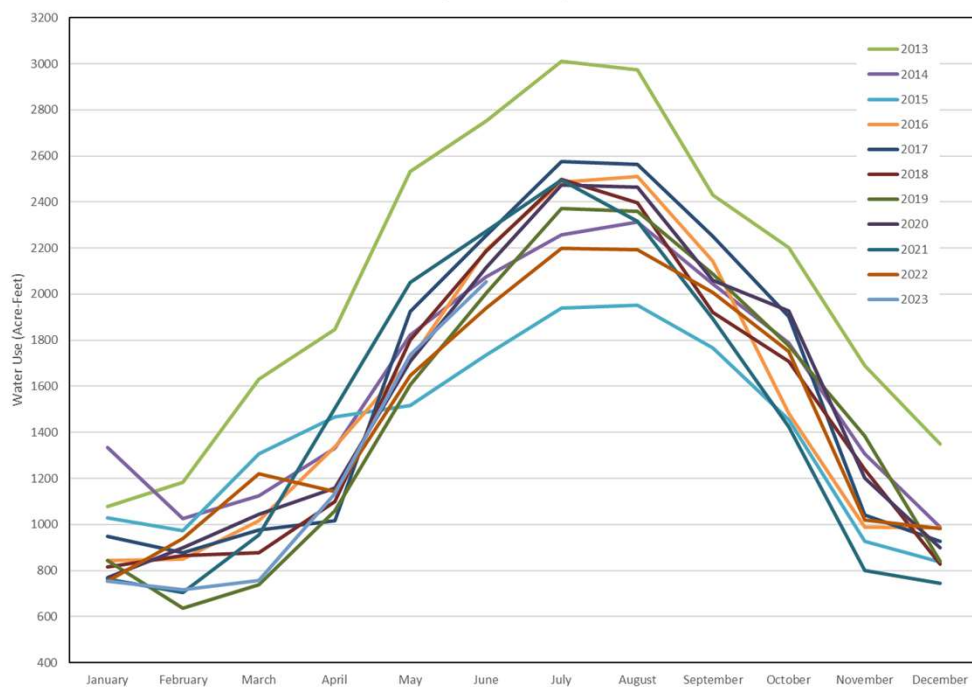


Folsom's Water Use Trends

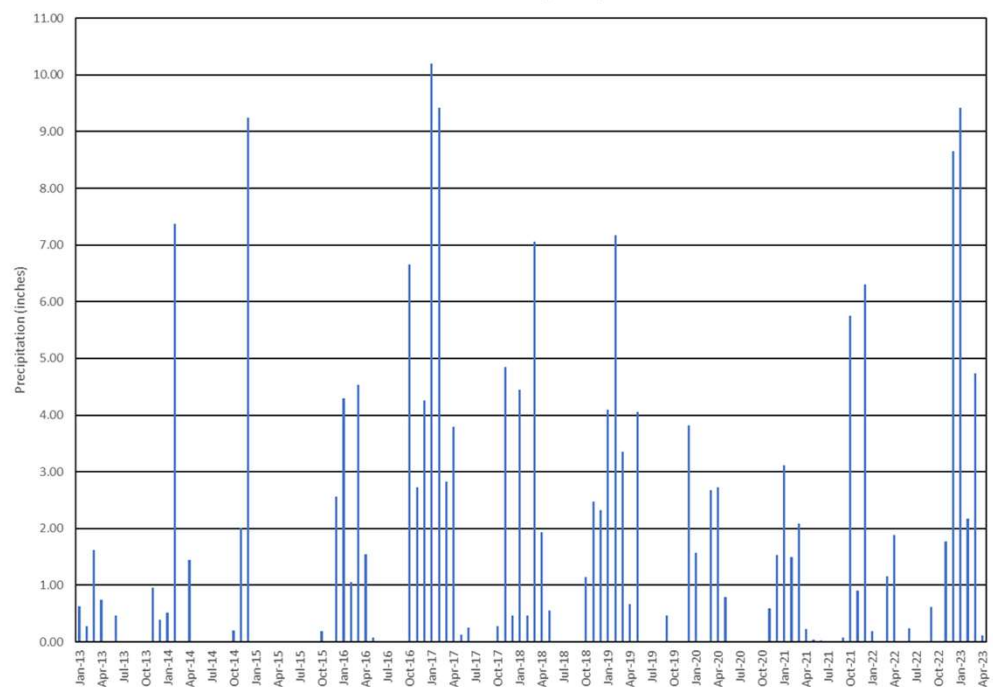


Monthly Water Use

Monthly Water Use by Year



Folsom Reservoir Monthly Precipitation



Supplies and Demands



Service Area	2020	2025	2030	2035	Build-Out
Ashland ^A	1,180	1,123	1,128	1,109	1,117
Folsom	17,005	18,185	20,175	21,486	22,651
Water losses	2,091	2,182	2,421	2,578	2,718
Aerojet/Rocketdyne Raw	144	150	150	150	150
Folsom Rights/Contracts Total ^B	19,884	20,517	22,746	24,214	25,519

A. Water delivered to Ashland is derived from SJWD water rights and contracts.

B. Does not include water from Ashland.

Folsom Water Use in Context



Year	Pre-1914	CVP	Total	% of Water Rights and Contracts	% of Reservoir Capacity	% of Average Annual Outflow ^A
2013	23,293	1,391	24,864	72.6%	2.54%	0.92%
2014	18,668	750	19,418	57.1%	1.99%	0.72%
2015	16,456	450	16,906	49.7%	1.73%	0.63%
2016	14,847	3,700	18,547	54.6%	1.90%	0.69%
2017	15,434	4,000	19,434	57.2%	1.99%	0.72%
2018	14,215	4,023	18,238	53.6%	1.87%	0.68%
2019	13,687	4,017	17,704	52.1%	1.81%	0.66%
2020	15,808	2,910	18,718	55.1%	1.92%	0.69%
2021	16,425	1,500	17,925	52.7%	1.83%	0.66%
2022	16,794	1,000	17,794	52.3%	1.82%	0.66%
Build-Out			25,519	75.1%	2.61%	0.95%

A. Based on 2.7 million acre-feet of annual average outflow from Folsom Reservoir

Challenges

- Groundwater limited for M&I use
- Infrastructure redundancy
- Drought Conditions
- Climate Change
- Regulatory Environment
 - Water Quality Control Plan
 - SWRCB long-term conservation regulations
 - CVP Long-Term Operations

Impacts to Water Supplies



CVP M&I Shortage

Delta Water Quality Plan

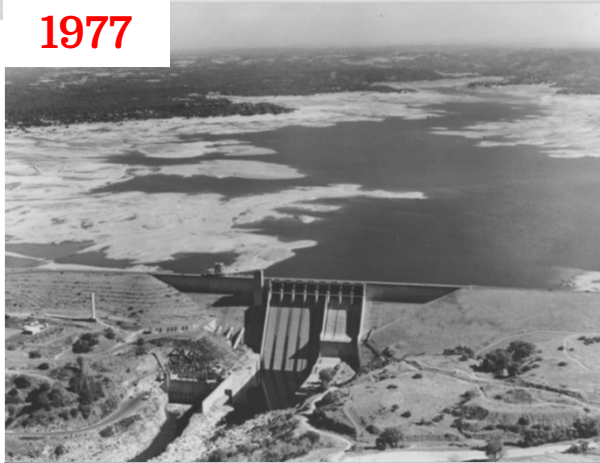
Climate Change

SWRCB Flows

Dry-Year Conditions

Folsom Dam and Reservoir

1977



2007



2015



2017



Emergency Operations



Opportunities

- Interties with other agencies with access to groundwater
- Regional conjunctive use
 - Sacramento Regional Groundwater Bank
- Aerojet groundwater extraction and treatment (GET)
- Water Supply Delivery Alternative Analysis
- Folsom Water Vision
- Folsom Dam Operations
 - Flows, temperature, and planning minimum

2023 Outlook



Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Trinity	890	1122	1248	1244	1195	1148	1136	1144	1182	1246	1358	1486	1592
Elevation		2268	2281	2280	2276	2271	2270	2271	2274	2281	2291	2302	2311
Whiskeytown	236	238	238	238	238	238	206	206	206	206	206	206	238
Elevation		1209	1209	1209	1209	1209	1199	1199	1199	1199	1199	1199	1209
Shasta	4430	4412	4221	3921	3576	3365	3162	3191	3296	3475	3680	3948	4200
Elevation		1062	1056	1045	1032	1023	1015	1016	1020	1028	1036	1046	1055
Folsom	805	901	958	879	757	661	532	475	435	434	558	716	844
Elevation		459	464	457	445	435	420	413	408	408	424	441	454
New Melones	1514	1756	1981	2065	2014	1978	1937	1958	1963	1958	1950	1954	1948
Elevation		1029	1051	1058	1054	1050	1046	1048	1049	1048	1048	1048	1048
Federal San Luis	958	890	699	352	85	50	128	266	412	581	682	760	569
Elevation		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	8833	9319	9345	8699	7865	7440	7101	7240	7494	7900	8433	9069	9391

State End of the Month Reservoir Storage (TAF/Feet)

Facility	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Oroville	3230	3464	3537	3362	2907	2619	2265	2118	2133	2344	2515	2409	2683
Elevation		896	900	889	858	836	807	794	795	813	828	819	841
State San Luis	1056	1064	1026	975	908	931	964	1007	928	967	1093	1185	935
Elevation		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total San Luis (TAF)	2014	1954	1725	1327	994	981	1092	1273	1340	1548	1775	1944	1505
Elevation		537	518	484	452	451	462	479	485	504	523	536	500

State Actions

- **August 2021**
 - Emergency drought regulation
 - Water suppliers shall implement Level 2 actions of their WSCP
 - 2 days per week watering
 - Prohibit non-functional turf irrigation for commercial, industrial and institutional sites
- **April 2023**
 - Rescinded most drought requirements
 - Continued prohibition of non-functional turf watering
 - Streamlined process for groundwater recharge projects

- **August 2021 – June 2023 Actions**
 - Level 2 (Stage 3) Water Conservation
 - 2 days/week watering, odd/even schedule
 - Additional funding for rebate programs

- **May/June 2023 Actions**
 - Rescinded Level 2 (Stage 3) Water Conservation
 - City Council approved additional rebate funding for FY 2023-24

Messaging and Outreach



- Logo and tagline developed – “Folsom Saves – It’s Our Nature”
- City wide mailer to all customers
- Freeway signs (300,000 + motorists daily)
- Bi-monthly newsletters (30,000 + residents and businesses)
- Weekly articles and tips (e-newsletter)
- Weekly social media posts
- Weekly ads in Folsom telegraph (14,000 readers)
- Utility bill inserts
- Metro Cable channel 14 public service announcements
- Folsom Saves webpage
- Water wise workshops

City Messaging and Outreach



*Water savings
made simple*



**REBATES AVAILABLE
FOR RACHIO SMART
CONTROLLERS**



Stay Water-Wise, Folsom!

Folsom's Water Conservation Division is committed to helping our residents and businesses use water efficiently through rebates, services, and programs.

RACHIO SMART SPRINKLER CONTROLLER DIRECT PURCHASE PROGRAM
Water customers pay just \$75 (plus tax and shipping) for the latest technology in irrigation controllers.

FLUME SMART HOME WATER MONITORING DEVICE DIRECT PURCHASE PROGRAM
Water customers pay just \$9 (plus tax and shipping after a \$25 refund from Flume) for a home water monitoring system.

CASH FOR GRASS REBATE
Receive \$1 per square foot of turf replaced, up to \$2,000, in this turf replacement program.

DROPCOUNTR APP
Monitor your water use with Dropcountr, a free app for Folsom water customers.

HIGH EFFICIENCY TOILET REBATE
Swap your older, higher volume per flush toilet with a toilet that uses 1.25 gallons per flush to receive 50% of the material cost, up to \$175.

IRRIGATION EFFICIENCY UPGRADE REBATE
Replace inefficient sprinkler system equipment. Controllers, sprinkler heads, and drip irrigation receive 50% of the material cost, up to \$500.

FREE WATER-WISE HOUSE CALLS
Sign up for your free Water-Wise House Call to receive a free evaluation of indoor and outdoor water use, including an irrigation checkup.

REPORT WATER WASTE
Contact the city at 916-461-4177 or waterconservation@folsom.ca.us.
Learn more at: www.folsom.ca.us/waterconservation



www.folsom.ca.us



**MANAGE YOUR WATER
USE THE SMART WAY!**



We can do this!

**KEEP ON SAVING WATER, FOLSOM.
IT'S IN OUR NATURE. • FOLSOM.CA.US**



Questions



Marcus Yasutake

City of Folsom

Environmental and Water Resources Director

916-461-6161

myasutake@folsom.ca.us

Orthophosphate

- Food grade additive used as a corrosion inhibitor in the form of phosphorous
- Forms a coating in copper pipes that does not dissolve in water
- Approved for use in drinking water systems by:
 - Environmental Protection Agency
 - U.S. Food and Drug Administration
- Not classified as environmentally hazardous

Adding Orthophosphate

- Decrease likelihood of copper pitting by adding orthophosphate to the treatment process
- Strive to maintain target pH of 8.5
- Started with small increments of orthophosphate
 - 0.1 parts per million (ppm) in the first week
 - 0.2 ppm the second week
 - 0.3 ppm the third week
- Maintain at 0.3 ppm