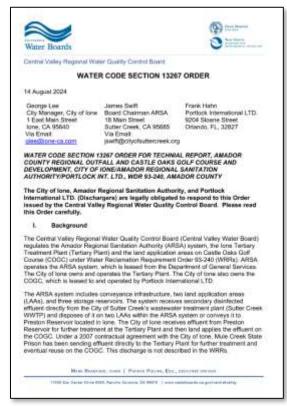


Overview

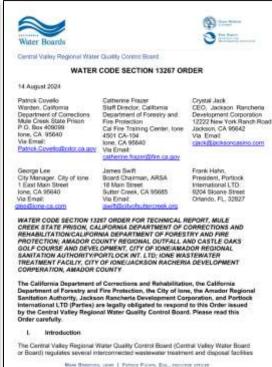
13267 Orders

- Individual orders issued to ARSA, Ione, and MCSP ("Individual Water Balance Orders")
- 2. Joint order issued to all parties as one group

Individual order (1 of 3)



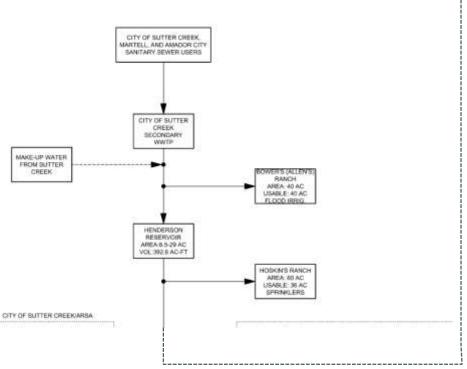
Joint order

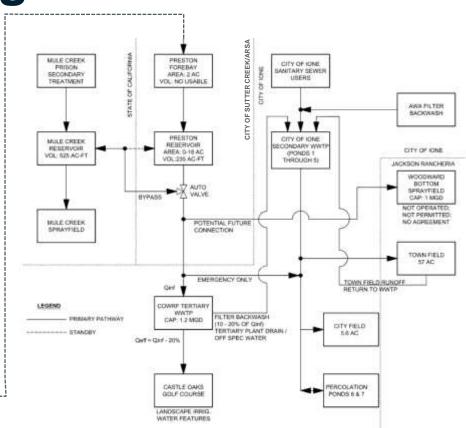


THE Law Lives I have NOT. Resolve Continue. Law 20075. I new problems in a process of the law.



ARSA System Diagram





HydroScience @

Water Board's Purpose for Issuing the 13267 Letters

- 1. Existing permits are out of date and not reflective of true system capacities
- 2. Lack of capacity cited as an ongoing compliance problem
- 3. Establish individual system capacities under average and 100 year return period (100 RP) rainfall conditions ("intended to be individual exercises, if each was operated independently")
- 4. Then if the parties intend to continue to operate a joint system, establish a joint water balance and a plan for creating the required capacity



13267 Letter Requirements

- 1. Current and forecasted flows (5 years)
- 2. Disposal acreages and agronomic rates
- 3. Water balance under average and 100-RP conditions
- 4. Calculations certified by the ARSA, Ione, and Portlock International, LTD, owner of Castle Oaks Golf Course (COGC) ("Parties").
- 5. Any changes to collection system, treatment plant, and disposal features or their operation planned over the next 5 years.
- 6. Calculation of any excess effluent that is not addressed by current system capacity.



Timeline

Step	Date	Status
Draft 13267 Letters Issued	June 28, 2024	Completed
Meeting at Water Board	July 16, 2024	Completed
Draft 13267 Feedback letter issued	July 30, 2024	Completed
Final 13267 Letters Issued	August 14, 2024	Completed
Status Meeting at Water Board	October 30, 2024	Completed
Deadline for Individual Water Balance Technical Memos	December 13, 2024	Completed
Individual Water Balance Review Meeting @ Water Board	January 27, 2025	Scheduled
Deadline for Signed Statement of Intent from each Party	February 1, 2025	In Progress
Deadline for Joint Water Balance Technical Memos	May 1, 2025	Kicking off



Individual Water Balance Results

Growth projection for next 5 years, offset by reduced sewer infiltration and inflow (I/I):

Table 2: Future Sutter Creek WWTP Flow Projections Based on Population Growth and I/I Reduction Projects

Year	ADWF (MGD)	Model Peak Month Flow (MGD)
2024	0.313	2.819
2029	0.319	2.687
Total Change	+2.17%	-4.7%

Individual Water Balance Results

Table 4: Summary of Water Balance Calculation Results

	Row Calculations	Parameter	Water Balance Scenario Results					
Row Number			Uncalibrated Current Flows		Calibrated Current Flows		Calibrated Future Flows	
		Climate Conditions	RP100 (Year 1)	Avg Year (Year 2)	RP100 (Year 1)	Avg Year (Year 2)	RP100 (Year 1)	Avg Year (Year 2)
		Inflow Resu	lts					
Α		WWTP Effluent (Ac-ft)	503.2	442.7	529.8	457.4	526.5	459.7
В		Precipitation and Runoff (Ac-ft)	230.6	120.1	230.6	120.1	230.6	120.1
С		Unmet Irrigation Demands (Ac-ft)	74.9	157.3	79.3	183.2	78.2	183.7
		Storage Facilities	Results					
D		Henderson Reservoir Max Storage Volume (Ac-ft)	392.8	281.7	392.8	294.1	392.8	291.3
E	-	Preston Reservoir Max Storage Volume (Ac-ft)	135.0	47.3	165.9	51.4	157.1	51.4
F		Henderson Reservoir Evaporation (Ac-ft)	66.5	53.7	67.0	55.5	67.3	55.3
G		Preston Reservoir Evaporation (Ac-ft)	33.5	43.1	42.5	18.7	41.2	18.7
		Disposal Res	ults					
Н		Bower's Ranch Irrigation Demands (Ac-ft)	128.3	118.6	128.3	118.6	128.3	118.6
I	-	Hoskin's Ranch Irrigation Demands (Ac-ft)	115.5	106.7	115.5	106.7	115.5	106.7
J		COWRF & COGC Irrigation Demands (Ac-ft)	423.4	481.7	423.4	481.7	423.4	481.7
		Overall Calculation	Results					
K	(A+B)	Total Inflows (Ac-ft)	733.8	562.8	760.4	577.5	757.1	579.8
L	(F+G+H+I+J)	Total Outflows (Ac-ft)	767.3	803.8	776.7	781.2	775.7	780.9
M		Unmet Irrigation Demands (Ac-ft)	74.9	157.3	79.3	183.2	78.2	183.7
N	(D+E), or as shown (1)	Maximum Storage Volume Required (Ac-ft)	527.8	326.6 (1)	558.7	342.7 (1)	549.9	339.8 (1)
0	(627.8 Ac-ft - N)	Unutilized Storage Capacity at Peak Storage (Ac-ft)	100.0	298.8	69.1	282.3	77.9	285.1

⁽¹⁾ The peak month storage volumes for Henderson and Preston Reservoirs may be in different months than the overall system's peak storage month, resulting in minor discrepancies of 2.4 to 2.9 Ac-ft between Row N values and (D+E) calculations. Where discrepancies occur, Row N displays overall peak storage month volumes from water balance calculations.

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ARSA Individual Water Balance Finding Summary:

- Included certified flows, disposal capacities, and treatment rates from lone and Castle Oaks
- 2. Without MCSP flows, the ARSA system <u>does</u> have adequate capacity in both rainfall scenarios but may have a shortfall of supply
- 3. The surplus irrigation (disposal) capacity is 78 185 acre-feet per year (AF/y)
- 4. This surplus capacity is <u>not</u> sufficient for:
 - MCSP contractual discharges (350 AF/y)
 - MCSP typical discharges (283 AF/y)
 - Growth at MCSP or lone

Note: Findings may change based on Water Board input and any requirements for revision.



MCSP Individual Water Balance Finding Summary:

- 1. Wastewater flows
 - Current flow: 0.38 Mgal/d
 - 5-year projected flow: 0.54 Mgal/d (modeled)
 - MCSP and MCIC max potential occupancy: 0.678 Mgal/d (modeled)
 - Permitted treatment capacity: 0.74 Mgal/d (modeled)
- 2. Storage and disposal components
 - Existing Reservoir: 155 Mgal
 - Existing Land Application Area: 200 acres
 - Expansion Land Application Area (proposed in 2015, not constructed): 61 AC
 - ARSA Agreement: 350 AF

Table 8
2013 through 2019 Average
COWRP Monthly Discharge

COWKP Wonthly Discharge					
Month	Mgal	Acre-Feet			
October	9.5	29.2			
November	3.9	12.0			
December	0.3	0.9			
January	0.5	1.4			
February	1.7	5.3			
March	0.0	0.0			
April	0.0	0.0			
May	4.0	12.3			
June	10.2	31.2			
July	15.0	46.1			
August	27.1	83.2			
September	19.9	61.0			
Total	92.1	282.7			



MCSP Individual Water Balance Finding Summary:

Flow Scenario	All Storage/Disposal Performed On Site, No Upgrades	All Storage/Disposal Performed On Site, with 61 AC Additional LAA	Storage/Disposal On Site plus Water Transfer to ARSA, Volume (AF)
5-year projected flow: 0.54 Mgal/d	Not compliant	Not compliant	283 AF
MCSP and MCIC max potential occupancy: 0.67 Mgal/d	Not compliant	Not compliant	350 AF (plus additional onsite LAAs)
Permitted treatment capacity: 0.74 Mgal/d	Not compliant	Not compliant	350 AF (plus additional onsite LAAs)

Notes:

MCSP report also discusses all on-site storage/disposal upgrades options.

Findings may change based on Water Board input and any requirements for revision.



Status Summary and Next Steps

- ARSA system can take 78 185 AF/y from MCSP, but MCSP needs to discharge up to 283 AF/y to ARSA (350 for their buildout) and/or develop expansions to onsite infrastructure
- 2. Ione's water balance works if they can continue to use their percolation beds. But Water Board may force lining those ponds which would cause a significant disposal shortfall at lone.
- 3. Ione may need some Castle Oaks Water Reclamation Facility (COWRF) capacity in the future. COWRF needs an upgrade.
- 4. CDCR verbally indicated intent to participate in the Joint Water Balance effort with the goal of staying part of the system
- 5. Joint Water Balance effort is starting. Final report is due to Water Board on May 1, 2025



