MANAGEMENT STRATEGY · COMMUNITY WATER SYSTEMS

Prioritizing human health water deliveries to community water systems

A management strategy in the COEQWAL scenario library

> This strategy changes the allocation of CVP and SWP surface supplies so that deliveries to municipal and industrial (M&I) contractors sufficient to meet health-and-human-safety (HHS) levels receive top priority. Agricultural contracts are assigned a lower priority than under standard allocation procedures to accommodate the prioritization.

This brief describes *a scenario that sets delivery of surface water to meet human health and safety (HHS) delivery levels for community water systems as the top allocation priority*, one of 28 management strategies in the COEQWAL scenario library. Each strategy is simulated once under each of five hydroclimates; the references note at the end of this brief lists the model runs.

§2 WHAT THIS STRATEGY CHANGES

The strategy prioritizes the allocation of surface supplies in the CVP and SWP systems to municipal and industrial (M&I) contractors sufficient to meet the health-and-human-safety (HHS) levels defined by the project's Drinking Water / Community Water Systems group. These HHS levels are determined outside of CalSim3 using independent statewide datasets. CVP agricultural contracts (including Settlement and Exchange) are assigned a lower priority than under standard CVP allocation procedures; SWP contracts are split into agricultural and M&I, with a higher-priority allocation made to a portion of the M&I demand.

For both projects, an initial allotment of supply is allocated first to the HHS level (or as much of it as is available); agricultural, refuge, and remaining M&I demands are then allocated from the remaining supply under standard rules. The minimum HHS delivery levels are assigned at each M&I delivery endpoint as a weighted constraint in each timestep, to encourage consistent delivery of the allocated supply at the project level.

Non-project M&I delivery endpoints are modified to include a high priority on the HHS delivery levels, but in general no allocation adjustments were made for those systems.

§3 THE CONFIGURATION IN DETAIL

The table compares the eight operational fields that define this strategy against current operations — the strategy that represents existing operational rules, recent (2020) land use, and TUCPs. Rows that match current operations are shown in light gray; rows that differ are highlighted.

ASPECT	CURRENT OPERATIONS	THIS STRATEGY
TUCP actions	Active	Active
SGMA actions	None	None
Land use	2020 LandIQ	2020 LandIQ
Delta regulations	Standard	Standard
BiOps	2019 / 2020 ITP	2019 / 2020 ITP
Infrastructure	Standard	Standard
Flows	Standard	Standard
Allocation / priorities	Standard	Top priority for health-and-human-safety level of surface deliveries to CVP and SWP M&I contractors

§4 LINEAGE AND SOURCE

This scenario was developed by the COEQWAL team using the COEQWAL Current Operations scenario as the base from which changes were made. The scenario was developed in coordination with the project's Drinking Water / Community Water Systems group, which defined the health-and-human-safety delivery levels used as the priority target. The key changes in this scenario are related to the allocation and priority logic; flows, land use, and operating rules otherwise match the Current Operations scenario. The CalSim model files for this strategy are referenced by the run IDs in the references note at the end of this brief.

§5 RELATED STRATEGIES

RELATED STRATEGIES — COMMUNITY WATER SYSTEMS

Prioritizing functional delivery levels to community water systems. Surface-water allocation rules placing top priority on a functional delivery level — 70% of contract entitlement — to community water systems.

Prioritizing full demands of community water systems. Surface-water allocation rules placing top priority on full contract deliveries to community water systems.

§6 WHAT THIS DOESN'T SAY

This brief describes a scenario representation in CalSim, not a real-world policy proposal or implementation plan. The strategy as modeled may not capture all details necessary to support direct translation to actual operations. The brief does not predict, evaluate, or recommend any outcome — it describes what the scenario changes about CalSim's representation of the system. For what the model produces under this strategy, see the result briefs referenced in §7.

§7 SEE RESULTS FOR THIS STRATEGY

To see modeled outcomes under this strategy across all nine key outcomes at the reference hydroclimate, see the *Community water systems* theme brief.

To see outcomes at a specific location of interest, see the relevant LOI briefs — particularly those for community water systems.

Compare this strategy in the data explorer → (https://coeqwal.org/explore?strategy=s0035)

REFERENCES — MODEL RUNS

Each strategy is simulated once under each of five hydroclimates. The table lists the model run behind this strategy and the current-operations run it is compared against, for each hydroclimate, so any reader can trace this page to specific CalSim runs.

HYDROCLIMATE	THIS STRATEGY	CURRENT OPERATIONS
Historical hydroclimate (adjusted)	s0035	s0020
Moderate climate stress (EC-Earth3-Veg)	s0147	s0134
Moderate-high climate stress (cc50)	s0075	s0047
High climate stress (cc95)	s0095	s0056
Extreme climate stress (TaiESM1)	s0121	s0108