

## MANAGEMENT STRATEGY · BASELINE

## Current operations with reintroduction

A management strategy in the COEQWAL scenario library

This “Current operations with reintroduction” strategy represents current operating rules for the major Central Valley water systems: the operational logic of DWR's 2023 Delivery Capability Report, with agricultural demands set by the 2020 LandIQ land-use dataset and Temporary Urgency Change Petition (TUCP) actions active.

This brief describes “*current operations with reintroduction*”, 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.

[Current operations](https://coeqwal.org/documents/Strategy_Documentation/strategy_brief_current-operations.html) ([https://coeqwal.org/documents/Strategy\\_Documentation/strategy\\_brief\\_current-operations.html](https://coeqwal.org/documents/Strategy_Documentation/strategy_brief_current-operations.html)) with reintroduction specifies the same water management actions as Current operations. The two strategies share the same CalSim 3 simulation of the water system — the same model run, not a duplicate. They differ in one action that is not a water management action: reintroduction of winter-run Chinook salmon to cold-water habitat upstream of Shasta Dam. Reintroduction enters the modeling through the winter-run life cycle model, not through CalSim 3, so modeled results differ from Current operations only for the winter-run salmon key outcome. Results for the other eight key outcomes are identical by construction.

### §2 WHAT THIS STRATEGY CHANGES

The model code and operating rules were taken directly from the CalSim3 files accompanying DWR's 2023 Delivery Capability Report (DCR) final version and represent the operating rules for the major Central Valley systems up to and including the 2019 Biological Opinions and the 2020 SWP Incidental Take Permit.

Two details distinguish this configuration from the DCR release it is built on: agricultural demands are determined using a 2020 map of crop types in the Central Valley (the LandIQ dataset) rather than the older 2004–2013 average, and TUCP actions are activated. TUCP actions can be triggered February through May when the Sacramento Valley index and Shasta storage both fall below certain thresholds. The TUCP actions relax certain Delta regulations to conserve upstream storage and follow the model implementation used by DWR in their 2023 DCR models.

### §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           | Standard        |

#### §4 LINEAGE AND SOURCE

This configuration was assembled by the COEQWAL team from DWR's 2023 Delivery Capability Report model release in two steps: TUCP actions were activated on the DCR baseline, and agricultural land use was then updated to the 2020 LandIQ dataset. 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 — BASELINE

**Current operations with historical land use.** Current operational rules with agricultural demands set from the older 2004–2013 average land use.

**Current operations.** Existing operational rules with recent (2020) land use and TUCP actions — the current-operations anchor the other strategies are compared against.

**Current operations without TUCPs.** Current operations with TUCP actions deactivated.

**Current USBR operations without TUCPs.** Operating rules from USBR's 2024 Long-Term Operations plan (Alt2v1), with TUCP actions deactivated.

**Current USBR operations.** Operating rules from USBR's 2024 Long-Term Operations plan (Alt2v1), with 2020 land use and TUCP actions active.

#### §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 for the current-operations family across all nine key outcomes at the reference hydroclimate, see the *BASELINES* brief.

To see outcomes at a specific location of interest, see the relevant LOI briefs — particularly those for the locations closest to your question — the LOI set spans rivers, reservoirs, groundwater basins, and community water systems.

**Compare this strategy in the data explorer** → (<https://coeqwal.org/explore?strategy=s0020-R>)

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. The identifier this brief carries for each hydroclimate ends in -R, which is the web platform's scenario identity for this strategy; the CalSim 3 run underneath it is the run for Current operations, the same identifier without the suffix, s0020 under the historical hydroclimate.

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