

Environmental Water Account

The following are DFG staff's initial input on an Environmental Water Account (EWA). Staff provides recommendations about how the EWA relates to fixed operational standards, on how the EWA should be organized, how it should operate, how assets are collected and used, how it is governed, and other features. Staff's input was made in recognition of the draft document titled "A Sample Hybrid Export Regime Designed to Allow Easy Modification" dated November 30, 1998 and the December 3, 1998 draft of "Environmental Water Account Straw man #2." DFG staff believes that the underlying foundation of an EWA is the establishment of a set of operation measures or default criteria that are defined to fundamentally protect the ecological processes and functions of the Bay-Delta and to reduce environmental stressors such as entrainment. Any change in the criteria should reduce impacts and provide net benefits to the aquatic resources of the Bay-Delta and its watershed.

Plan Scope

The EWA plan should address the next 10 years or the length of Stage 1, estimated to be 7 to 10 years. The plan should include two phases; EWA mechanisms that apply prior to the development of any new surface storage or groundwater storage and mechanisms that apply after these storage facilities are developed. The EWA plan may be extended beyond Stage 1.

Default Criteria

Staff recommends the following default criteria with the following baseline assumptions:

Baseline Assumptions

The default criteria are based on the following being implemented as a baseline:

- 1995 Water Quality Control Plan
- VAMP
- All AFRP Actions (including in-Delta): (1) 30 day VAMP, (2) _____, (3) 1962 LOD X2, (4) and (5) 0.35 E/I in April-June, (6) DCC closure Oct-Jan based on RTM, (7) July-Jan outflow standards 3,000 cfs to 8,000 cfs, (8) 0.65 E/I in Oct-Jan
- Trinity River (meet the revised Trinity flow criteria dated _____).

Default Criteria

- Nov-Jan: Supplement current E/I with QWEST of > 0.
- Nov-Jan: DCC closed in Nov based on monitoring; DCC closed in Dec-Jan
- Feb-June: Retain E/I with QWEST of > 0 if Jan 8RI is < 1 MAF and QWEST of >

- 1,000 if Jan 8RI is > 1 MAF
- Apr-June: 75 day VAMP (April 1- June 15)
- July: Gradual ramp up/down from VAMP
- Aug-Oct: No E/I
- QWEST enhancements described above would be phased in after new water storage is in place

Accounting Structure

Number of Accounts

There should be two water sub-accounts; an upstream account and a downstream account. Those accounts will hold assets that consist of water resources and option contracts for water. There should also be two funding sub-accounts that contain funds in an upstream account and a downstream account. The upstream account would be further divided into San Joaquin River and Sacramento River components. Other accounts may also be considered but, in general, we recommend avoiding too many separate accounts.

Initial Deposit

Each year on October 1, initial deposits of 100 TAF of water shall be deposited by the SWP and CVP into both the upstream and downstream sub-accounts. The upstream account would be further divided into 50 TAF each for the San Joaquin River and Sacramento River components. In addition, funds in the amount of \$10 million dollars (in January 1999 dollars adjusted for inflation using an acceptable index) shall be deposited into the EWA as \$6 million into the upstream sub-account equally divided between the San Joaquin River and Sacramento River components and \$4 million into the downstream sub-account.

Any water remaining from the initial deposit at the end of a water year, September 30, shall revert back to the SWP or CVP.

Other Deposits

If the Ecosystem Water Manager (EWAM) elects to modify the default operational rules in a manner that results in additional water supplies, 100 percent of those additional water supplies shall be dedicated to the EWA. When additional water supplies are developed, the EWA shall be provided with 50 percent of those new supplies. During Stage 1, operational changes such as the Joint Points of Diversion (JPOD) and authorization to use the full 10,300 cfs pumping capacity at Banks and new facilities such as new storage upstream and downstream of the Delta and in-Delta are expected to increase water supplies.

How Water is Held

Initial deposits of water into the EWA shall be in the form of a water contract with the SWP or CVP. Other deposits into the EWA resulting from new water supplies resulting from the development of new storage, relaxations in the default criteria, or operational changes shall be in the form of a water rights recorded with the State Water Resources Control Board. Those water rights would be equivalent with or superior to the priority of the associated water rights of the SWP or CVP related to those new water supplies.

Relationship Between Accounts

The EWAM shall, subject to the transfers provisions below, manage the upstream accounts separately from the downstream accounts. The relationship between the water and funding sub-account shall be managed according to the asset allocation provisions described below.

Transfer Provisions

The EWAM may chose to transfer assets between the upstream and downstream accounts. The amount of these transfers shall be limited annually to 10 percent of the sub-account balance.

Asset Reallocation

The EWAM may choose to convert water to funding or shift from funding to water when, in its judgement, there is an advantage to do so to improve the ecological health of the Bay-Delta. Water may be converted to funds at the minimum rate of \$50 per acre-foot in January 1999 dollars, adjusted for inflation as specified above. The actual rate above this minimum will be established on a negotiated basis between the EWAM and a willing buyer. The amount of these conversions shall be limited annually to 50 percent of the sub-account water balance. Conversions of water to funds will occur automatically with no limit for the volume of water that would result in exceedence of the percentage caps for storage priorities and dedications described below.

Funds may be converted to water in the form of option contracts, acquisition of water rights, short-term spot market purchases, funding of water conservation measures linked to a specified water return, a share of a drought water bank, pre-banked water, or other mechanisms deemed appropriate by the EWAM to improve the flexibility in using the EWA to benefit aquatic resources in the Bay-Delta and its watershed.

Carryover of Assets

Assets shall be carried over in the following manner:

Environmental water provided as an initial deposit shall not be carried over. In the event environmental water provided in a water year as a result of other deposits is not used by the end of that water year, September 30, the EWAM shall, if requested by DWR or the USBR, release its hold on any remaining environmental water in surface storage. Such released water shall be immediately dedicated in an equal amount in a groundwater facility or alternative surface storage facility acceptable to the EWAM.

All other unused EWA assets shall be carried over without restriction.

Use of Account Assets

Water in the EWA may be used by the EWAM in two principle ways. First, water may be released from storage in areas upstream of the Delta when such flow augmentations are deemed appropriate by the EWAM to benefit aquatic resources. If the water released is identified as being available for export and is in fact exported by the SWP or CVP, the EWA shall be reimbursed at a minimum rate of \$50 per acre-foot in January 1999 dollars, adjusted for inflation as specified above. The actual rate above this minimum will be established based on an evaluation of then current water values.

Second, water stored in surface or ground water storage downstream of the Delta may be released for use by the SWP or CVP in exchange for reduced exports below the default criteria when such reductions are deemed appropriate by the EWAM to benefit aquatic resources.

Funds may also be used to rent storage under conditions described above. The EWAM may use funds in the EWA to acquire and develop habitat that can contribute to improving the ecological health of the Bay-Delta.

Other Uses of Ecosystem Assets

Any additional water supply impacts associated with expanding the VAMP from 30 days to 75 days will be offset using the EWA.

Debit Reimbursement Provisions

If water from the EWA is used to offset expected reductions in project yield as a result of implementing more protective criteria than currently included in the default criteria and those expected reductions in project yield do not occur during that water year, then the EWA shall be reimbursed. For instance, intra-year repayment waivers could occur if the water users portion of San Luis Reservoir fills in spite of implementing more protective criteria.

If water is released from storage in areas upstream of the Delta and such water releases are identified as being available for export and are in fact exported by the SWP or CVP, the EWA shall be reimbursed at a minimum rate of \$50 per acre-foot in January 1999 dollars, adjusted for inflation as specified above. The actual rate above this minimum will be established based on an evaluation of then current water values.

Carryover of Debits

A carry over of debits against the EWA will be allowed under two conditions. First, the debit carry over shall apply to water only and not funding. Second, the debit carryover shall not exceed 50 percent of the yearly initial deposit of water.

Conveyance and Storage Priorities and Dedications

Conveyance

Water shall be wheeled by the SWP or CVP at no cost to the EWA. The EWA shall be given the highest priority for conveyance by the SWP or CVP.

Storage

Storage of water upstream of the Delta and downstream of the Delta will be addressed differently. Upstream releases from storage may be available for export subject to the default criteria when the EWAM determines that the principle benefits of a release of environmental water are in stream in the tributaries. The EWAM must make this determination in writing prior to the export of the environmental water by the SWP or CVP.

Before new storage is developed, the EWA shall not result in a dedication of more than 10 percent of any upstream of Delta reservoir or more than 20 percent of any downstream of Delta reservoir in any given water year. There shall be a limit of 50 percent on the percent of storage dedicated for the EWA in any existing ground water storage facility.

Criteria will be defined for filling new upstream of Delta or in-Delta reservoirs that are designed to sustain ecological processes as described in the ERPP and reduce the adverse effects of take of listed and non-listed fish. Any reduces water supplies that may result from implementing those criteria shall not be debited against the water supply assets that should be deposited into the EWA as a result of those new facilities.

Before New Storage

Prior to the development of any new surface storage or groundwater storage the EWA shall be provided storage space in any SWP or CVP storage facility selected by the EWAM at no charge to the EWA. The EWA shall be allowed to rent storage space in other non-SWP or non-

CVP storage facility at a cost to be negotiated between the entity controlling the storage facility and the EWAM.

After New Storage

After the development of any new surface storage or groundwater storage the EWA shall be provided one-third of the storage space at no charge to the EWA.

In-Delta Storage

Any new in-Delta storage shall be shared equally between the water users and the EWA.

Decision Making Process- EWAM

The EWAM shall consist of the directors of the Department of Fish and Game, the U.S. Fish and Wildlife Service, and National Marine Fisheries Service. Each of these agencies shall dedicate technical staff to provide recommendations on how and when the EWA should be used.

Agency representatives of the EWAM shall be responsible for the following:

- negotiations
- providing rapid decisions using CMARP Real-time data
- developing longer range decision triggers
- developing and implementing a long range strategy for EWA uses
- priority setting
- integrating EWA funds with ERPP habitat restoration
- integrating and coordinating with ERP and CVPIA water purchases
- ensuring adaptive management of the EWA

The EWAM will use the existing Operations Group structure with the addition of a scientific advisory group. The EWA Plan should provide specific examples to illustrate how the EWA works and how decision making occurs. These illustrations could help to avoid potential future disagreements or differing interpretations of how the EWA operates.

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