

- o **Shasta Storage.** *Major benefits.*
 - Generated EWA water in wet winters.
 - EWA backed water into Shasta.
 - Water used for instream flows, EWA exports, and/or Delta outflow.

- o **Delta Island Storage.** *Major benefits.*
 - Direct connection to Clifton Court increased flexibility.
 - Used as alternate intake point.
 - Used for new water supply (using Delta Wetlands rights).
 - Used as EWA storage facility.
 - Allowed pumping above 13 kcfs .

- o **E/I Relaxations.** *Major benefits*
 - Very important source of EWA water during dry years.
 - Benefits appear higher than projected with monthly models.

- o **San Luis Reservoir Low Priority Storage.** *Major benefits*
 - Space available most of the time for EWA water.
 - High input/output capacity.

- o **Groundwater Storage.** *Benefits*
 - Clear benefits in dry years.
 - However, output capacity continues to constrain value.

- o **Purchase of Water.** *Very high*
 - The ability to purchase water, whether or not water was actually purchased, allowed the EWA to modify export operations with confidence of payback.

 - In drier years, access to markets provide significant amount of water for the EWA.

 - Additional work is needed to make water purchase assumptions more realistic.

o **Efficiency.** *Benefits*

- Generated about 150 kaf of usable EWA water over 5 years.
- Useful baseline supply, but need more to have major impact.

o **Synergies.** *Very high*

- EWA had network of infrastructure/ rights: Shasta, Delta Island, E/I variances, increased Banks pumping, San Luis storage, groundwater storage.
- Value of network greater than sum of parts. Ability to shift water, focus timing of exports using differentials in environmental sensitivity by time and place very valuable.

o **Adequacy of Account.** *Requires more analysis*

- Account appeared to meet biological requirements most easily in wettest and driest years. In wet years, export manipulations have no net cost because of high water availability. In dry years, the cost of export manipulations is low because baseline pumping is low.
- Middle sized years require high cost interventions by EWA, but lack the assurance of makeup water

Recommendations from Quinn/Spear group:

At the April 2, 1999 Quinn/Spear meeting the following guidance was give to the gaming team.

1. Future gaming should integrate and track: biological, water supply and water quality. With active management of the game by the players in all three resource areas.
2. The team should consider the following before reporting back to the Quinn/Spear group: Use infrastructure that will be developed by the end of Stage 1.
ERP flows considered in and out
Agencies biologist are satisfied
Water supply/water quality users are satisfied