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Subject: water management strategy outline
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Hi Lester and Steve-- Attached and copied below in text format is a proposed outline for the water management strategy discussion, mainly prepared by Mark; I added the lead-in and concluding sections to incorporate the solution principles and Dave Fullerton's thinking.
Stein

Water Management Strategy Presentation Outline

General Overview of California Water Development, concerns, and constraints

CALFED Solution Principles, and how they provide policy constraints on water management strategy

Hydrologic Variability

- Annual
- Seasonal
- Geographic

Existing Water Management in California

- Average conditions vs. Drought conditions

 - Significant decrease in Delta outflow
 - Greater reliance on groundwater
 - Decreased exports

- Greater share of water to Southern California due to contractual entitlement

 - California Water Balance

 - Current (1995) long-term average supplies are approximately balanced with demands, except for ground water overdraft (about 1.5 MAF).

 - Significant shortages occur during drought conditions.

 - 1995-level drought condition shortage of about 5 MAF (including overdraft)

 - The Bay-Delta System, including Sacramento and San Joaquin River Basins and groundwater aquifers, account for about one-half of total applied water supplies.

Drought Condition Conflicts

- Higher percentage of inflow is exported in drier years

- Increased entrainment effects

- Poorer water quality (drinking, irrigation, and environmental)

- Reduced availability of habitat due to position of salinity gradient

Water Supply Impacts due to Protective Regulatory Actions

- Protective actions since D-1485 have reallocated water from urban and ag to the environment. These actions have provided improved conditions for the estuary, but have reduced dry year water supplies. *and more importantly* ~~In addition to direct water supply impacts, system operational flexibility has been reduced.~~ (Additional protective criteria will cause more significant water supply impacts, because windows for make-up exports have been reduced.)

 - Combined effect of ESA, Bay-Delta Accord, and CVPIA:

 - Long-term average: .5 MAF

 - Dry-Period (1986-92): 1.1 MAF

 - Additional water supply impacts expected due to actions on Trinity and

American Rivers

Actions resulting from the DEFT/No Name process may also result in water supply impacts and/or further reductions in flexibility of the system.

Water Supply Reliability

Water supply reliability is defined by a number of qualities.

Definition:

- Reduce Diversion Conflicts
- Increase Supply Predictability
- Increase Supply Utility (Water Quality)
- Decrease Drought Impacts
 - Environmental Flows
 - Ag/Urban Supply
- Increase Supply Availability
 - Drought
 - Average
- Increase Operational Flexibility

Water Management Tools

A number of tools are available to improve water supply reliability. Different tools perform different functions. Implementing a variety of tools improves operational flexibility.

Tools:

Transfers (up to 1.2 MAF Drought Supply)

- Long Term
- Water Bank

Conservation

- Ag (up to 0.4 MAF Long-Term/Drought Supply)
- Urban (up to 1.1 MAF Long-Term/Drought Supply)
- Wetlands

Reuse (Up to .75 MAF Long-Term/Drought Supply)

- Storage (4 MAF surface storage +0 .75 MAF groundwater storage results in about .25 MAF long-term average supply and .75 MAF drought supply)
- Groundwater
- Surface

Watershed Management

Water Quality

Monitoring

Diversion Management

Articulate CALFED Water Management Strategy, based on application of solution principles, dry year hydrologic constraints, and capabilities of the available water management tools.