

# Water Supply Measures for Stage 1 Summary

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## Key Points

- **Water supply measures for Stage 1** have been identified
- All require **additional evaluation**
- If any are going to be part of Stage 1, **action** must be taken **now** to ensure timely permitting and implementation.
- **Agency coordination** will be required to implement.
- **Mitigation measures** must be part of a package to ensure no re-directed impacts, especially water quality and fisheries.
- **Operational criteria** are key to defining water supply, water quality and environmental benefits or impacts.
- Core elements including demand management (conservation, reclamation) have **not been included in the analysis.**

## Measures for supply

- Joint use of Federal and State pumping capacity in the South Delta
- Maximize the use of State's Pumping Plant (now restricted)
- Intertie between Federal and State aqueducts
- Groundwater banking (Madera, Kern, Semitropic, & S. Calif.)
- Small Shasta enlargement
- In-Delta storage
- Alteration of operational limits
- Exchanges, transfers and rescheduling of water (these measures largely increase the flexibility of the system)

## Results of analysis

- Increasing SWP capacity and joint use of facilities:  
100 TAF dry, 230 TAF average
- Storage (300 TAF):  
50 TAF dry, 70 TAF average
- Shasta enlargement, Madera Ranch, Kern Water Bank, In-Delta storage plus increasing SWP capacity and sharing:  
320 TAF dry, 380 TAF average  
(220 TAF/150 TAF increase)

## Effects of Operational Criteria

- Restrictive operations:
  - Reduces exports by 450 TAF
  - Increasing SWP capacity and allowing joint use:
    - 15 TAF dry, 180 TAF average (compared to 100/230)
- Relaxing operations and increasing SWP capacity with sharing:
  - 200 TAF dry, 400 TAF average
- Full analysis requires definition of how water is used

# Time Line for Implementation

Briggs and Ott to develop

5

6

## General Conclusions

- Flexible pumping operations can shift more exports outside of sensitive fish periods
- As storage is added, more water becomes available for dry years
- Storage benefits depend on operations (dry year vs. average year)
- As Delta restrictions increase, benefits from measures decrease
- Exchanges and transfers add to potential supplies. Increasing permitted pumping capacity adds to the potential. However, willing participants must be identified and other limitations must be recognized.

## Summary

- To implement any measures in Stage 1, agency coordination and permitting need to start immediately.
- Operational rules need definition to quantify benefits (water supply for export areas, non-export areas, water quality or fisheries)
- Package must be complete and self-mitigating