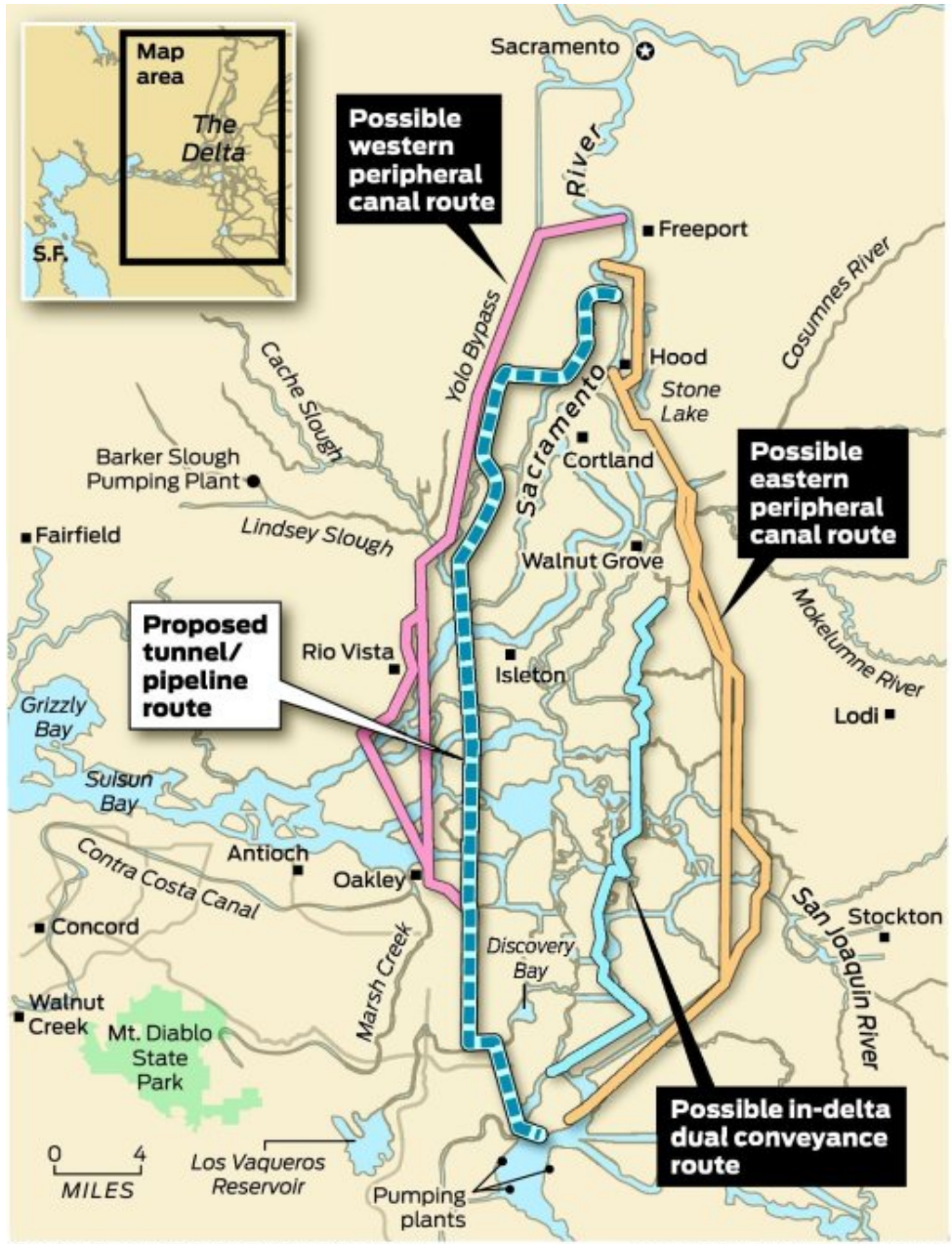



Source: Public Policy Institute of California

John Blanchard / The Chronicle

Before deciding what to build, one must first determine how much water is available.

How much water do the watersheds produce?

How much water is needed for area of origin needs?

How much water is needed for in-Delta needs?

How much water is needed for fish?

What is left over (i.e. surplus) for exports?

"The Bureau will not divert from any watershed any water which is needed to satisfy the existing or potential needs within that watershed. For example, no water will be diverted which will be needed for the full development of all of the irrigable lands within the watershed, nor would there be water needed for municipal and industrial purposes or future maintenance of fish and wildlife resources."

"No area will be deprived of water to meet the needs of another. Nor will any area be asked to pay for water delivered to another."

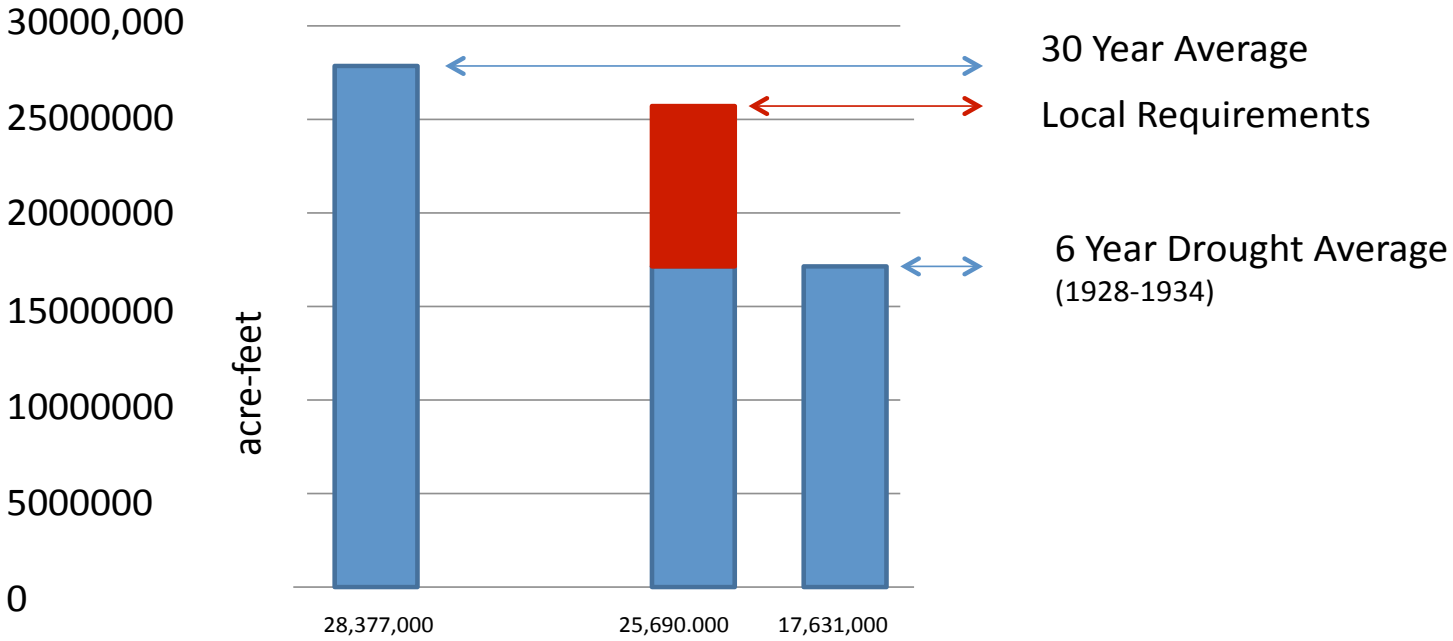
"Under this Act the water rights of northern California will remain securely protected. In addition, sufficient money is provided for construction of local projects to meet the pressing needs for flood control, recreation and water deliveries in the north."

USBR Acting Regional Director, R. C. Callard, 1956

Currently the projects export between 3 and 7 million acre feet of water out of the Delta, after the water flows into, and through the Delta to the export pumps .

With an isolated facility, there would be 3-7 million acre feet less fresh water flowing into and through the Delta.

## ESTIMATED SEASONAL RUNOFF CENTRAL VALLEY
## 1917 - 1947




Indicates approximate 8 million acre-foot shortage in each year of the drought.

Information taken from Weber Foundation Studies.

# Paying for Tunnel Conveyance

- Draft BDCP estimate debt service for conveyance will be $1.1 billion annually for 40 years, and operation cost will be almost $100m.
- Draft BDCP says average water exports will increase from 4.7 to 5.9 million acre feet (maf), an increase of 1.2 maf.
- Thus, the additional 1.2 maf of water will cost $1,200 af. Once pumping and treatment costs are added, it is more expensive than drought-proof desalination, and far more expensive than water recycling and conservation.
- The cost is likely to increase substantially because a) meeting the environmental requirements of BDCP will probably
- Municipal users can probably pay these costs even though they have cheaper alternatives, but agricultural users can not pay as these costs far exceed the profit margins of most crops.

# Paying for Tunnel Conveyance

- Agricultural uses the majority of water exported from the Delta and will require a large cross-subsidy from urban water ratepayers or taxpayers.
- Water Agencies will hide the extreme and unnecessary cost by averaging the cost over all water supplies to make it seem more affordable. Water contractors lose revenue when customers conserve or switch to less expensive alternative supplies.
- Alternative urban water supplies increase the state's total water supply, helping everyone in the state, except the Metropolitan Water District whose business is selling water exported from the Delta.
- Since local, alternative supplies do not cost more than new conveyance and create local jobs, citizens of southern California help themselves and the whole state by saying no to Delta conveyance.

# Need for Benefit-Cost Analysis

- Benefit-Cost Analysis is the standard, well established technique for evaluating the economics of public works projects and is in the Department of Water Resources' (DWR) Economic Analysis Guidelines.
- Financial feasibility analysis just evaluates whether a project can be paid for, not whether it is a good choice for taxpayers and ratepayers. Cost-Benefit Analysis is comprehensive, includes 3rd party impacts, and compares a project to alternatives.
- Water contractors are opposed to cost-benefit analysis. California DWR and Department of Interior are not following their own economic analysis guidelines and performing cost-benefit analysis.

# The Economics of a Delta Earthquake

Water exports are only a small part of the "$40 billion disaster" from a massive earthquake scenario that floods 10-30 Delta islands. According to the results of the DRMS study:

- Water Exports are only 20% of the cost of the large Delta earthquake.
- Water exports are less than 2% of the cost of smaller, more common flood scenarios.
- Water exports are 0% of the loss of life from Delta earthquake.
- Levee upgrades were evaluated to have higher benefit-cost ratios than a peripheral canal in the DRMS study.
- A canal does not solve the state's earthquake risk in the Delta, which is more about non-water infrastructure such as highways and energy infrastructure; and in-Delta farmland, structures and loss of life.

# “Fat” Levees are the best solution for the Delta

- Fat, earthquake resistant levees for most of the Delta would cost $1-2 billion, up to $4 billion allowing for environmental enhancements and cost overruns.
- Protects export water supplies, other critical infrastructure, Delta lives and property from earthquake risk. Multiple benefits are why fat levees deliver the most economic bang for the buck.
- Improves habitat and recreation by allowing water side vegetation and benches, and creates space for safer roads with room for bikes and other recreation facilities.

# Other Water Alternatives for the Delta & California Include :

- Improved urban water conservation
- Bringing Delta levees up to robust standards
- Retirement of drainage impaired agricultural lands in the Central Valley
- Exporting safe yields of water only during wet periods
- Restructure our water system to promote regional self-sufficiency