

Testimony before the California Assembly Select Committee on Growth and Infrastructure

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Testimony of
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Water Planning and Conservation Needs

Honorable Representatives, distinguished guests: Thank you for inviting me to testify today. My testimony addresses the topic of water planning and conservation to meet the needs of growth and development. In the time available, I will provide a summary overview. I have submitted more detailed comments for your review.

Summary

Water is vital to our economy, our environment, and our daily lives. As California's population and economy grow, there is mounting concern about our ability to meet future water demand. The traditional approach to meeting this demand has been to develop new infrastructure. While this approach has brought tremendous benefits to this state, there are serious inadequacies that a broader approach may help resolve. Improved water-use efficiency and conservation – by which I mean doing the things we want to do, with less water – are the cheapest, easiest, and least destructive ways to meet California's current and future water supply needs. And the potential for reducing the waste of water remains very large.

Traditional Water Planning Assumptions are Incorrect

Traditional water planning is based on two premises. First, that population, the economy, and water use are inextricably linked such that water use will increase as the economy and population grow. And second, that in order to meet the needs of a growing population, we must build more infrastructure to take water from rivers, lakes, and aquifers.

These assumptions are false. Figure 1 on page 6 shows California's gross state product, population, and water use between 1975 and 2001. **Total water use in California was less in 2001 than it was in 1980, yet population increased by 50% and gross state product doubled.** This suggests that we can and in fact we have broken the link between water use, population, and economic growth. This has been achieved in part by improvements in conservation and efficiency, as well as the changing nature of our economy.

Conservation and Efficiency Are Viable Alternatives

It is important to realize that we do not want water; we want water services. This realization lies at the heart of conservation and efficiency. Thus conservation and efficiency provide a means by which we can maintain these services while reducing our water use.

Although Californians have improved efficiency of our water use over the past 25 years, current water use is still wasteful. The Pacific Institute's "Waste Not, Want Not" report, released in November of 2003, provides a comprehensive statewide analysis of the conservation potential in California's urban sector. This study finds that existing, cost-effective technologies and policies can reduce current (2000) urban demand by more than 30 percent.

Widespread conservation and efficiency improvements are possible in every sector. These savings are real and represent a tremendous amount of untapped potential in California's urban sector. Further, significant water savings can be found for much less than the cost of building new supply or expanding our current supply. This suggests that improved efficiency and conservation are the cheapest, easiest, and least destructive ways to meet California's water supply needs.

A Water-Efficient Future is Possible

Conservation and efficiency can meet our needs for decades to come. A new report by the Pacific Institute, entitled "California Water 2030: An Efficient Future," presents a vision of California in which improvements in water-use efficiency are considered the primary tools for reducing human pressures on the state's water resources. This study finds that total human water use in 2030 could be 20 percent below 2000 levels, while still satisfying a growing population, maintaining a healthy agricultural sector, and supporting a vibrant economy. Some of the water saved could be rededicated to agricultural production elsewhere in the state; support new urban and industrial activities and jobs; and restore California's stressed rivers, groundwater aquifers, and wetlands.

While this is not a prediction, it does suggest that a water-efficient future is possible; indeed I believe such a future is preferable. Ultimately, the future we reach depends upon what water policies we implement over the coming years. Experience has shown that efforts to improve water-use efficiency are consistently successful and cost-effective. If California put as much time, money, and effort into water-efficiency programs as has gone into traditional water supply development, a high efficiency future could be readily achieved – with benefits to our economy, environment, and health.

Recommendations

Action, on the part of legislators, water managers, water districts and agencies, farmers, corporations, and all individuals, must be taken immediately to realize the goal of an efficient future. Waiting another five to ten years will make solving California's complex water challenges more difficult and expensive. The recommendations below provide an indication of the wide array of options available to begin working toward an efficient future.

Pricing policies that subsidize the inefficient use of water should be eliminated.

- Ensure that urban and agricultural water rates reflect the true cost of service, including non-market costs.
- Phase out water subsidies on the Central Valley Project, especially for low-valued, water-intensive crops.
- Implement new rate structures that encourage efficient use of water.
- Avoid inappropriate subsidies for new water-supply options.

Efforts to promote the use of water-efficient technologies and practices should be greatly expanded, in both the urban and agricultural sectors.

- Set new water-efficiency standards for residential and commercial appliances, including toilets, washing machines, dishwashers, showers, and faucets.
- Offer comprehensive rebates, including both energy and water rebates, for the purchase of water-efficient appliances.
- Require water-efficient appliances to be "retrofit on resale" for existing homes.
- Revise and expand "Best Management Practices" for urban and agricultural water agencies.
- Make "Best Management Practices" mandatory and enforceable.
- Expand development and deployment of efficient irrigation technologies and new crop types.

Legislative, regulatory, and administrative support should be given to those water transfers that improve water-use efficiency, while promoting the overall well-being of rural communities.

- Implement programs to permit water saved through efficiency improvements to be transferred and marketed, but reduce adverse impacts on rural communities and the environment from such transfers.

A statewide system of water data monitoring and exchange should be created, especially for water use.

- Collect and make publicly available comprehensive water-use data for all users.
- Design and implement comprehensive local groundwater monitoring and management programs statewide.

Educational programs on water use, and on the potential for water-use efficiency, should be expanded.

- Label all appliances with efficiency ratings.
- Expand water-efficiency information and evaluation programs in the Agricultural Extension Services and other agricultural outreach efforts.
- Develop on-line data collection and dissemination networks to provide farmers with immediate meteorological and hydrological information on climate, soil conditions, and crop water needs.

Better combined land and water planning is needed.

- Demonstrate a secure, permanent supply of water before new urban and suburban developments are approved.
- Demonstrate water-efficient housing designs before developments are approved.
- Protect high-quality agricultural land and related watersheds from urbanization.

Conclusion

Over the past 25 years, conservation and efficiency have enabled us to break the link between water demand, population, and economic growth. Although Californians have improved efficiency of our water use over the past 25 years, current water use is still wasteful. Existing, cost-effective technologies and policies can reduce current (2000) urban demand by more than 30 percent. Further, total human water use in 2030 could be

20 percent below 2000 levels, while still satisfying a growing population, maintaining a healthy agricultural sector, and supporting a vibrant economy. Action, on the part of legislators, water managers, water districts and agencies, farmers, corporations, and all individuals, must be taken immediately to realize the goal of an efficient future. Waiting another five to ten years will make solving California’s complex water challenges more difficult and expensive. A wide array of options is available to begin working toward this goal.

Thank you for your consideration.

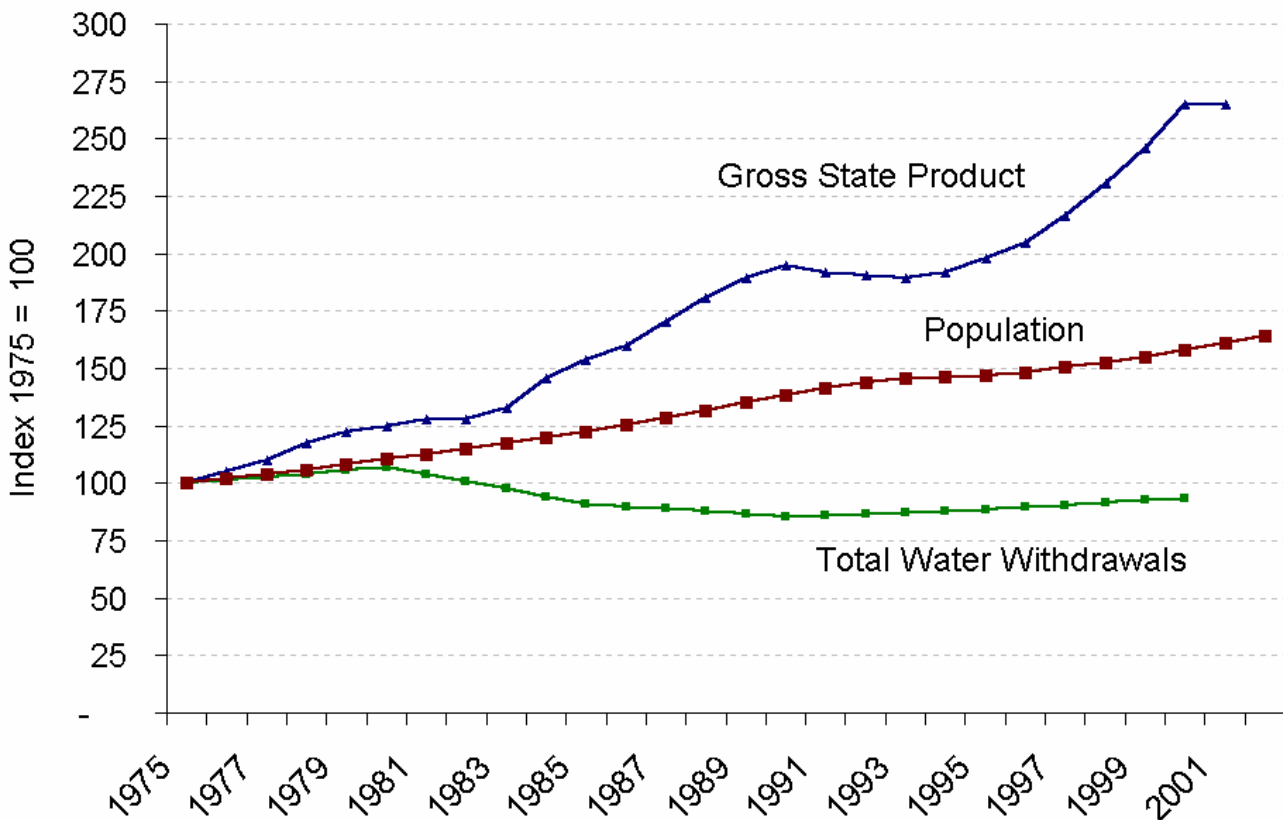


Figure 1. California’s water use (green line), population (red line), and gross state product (blue line) between 1975 and 2001. Data is indexed to 1975. Water use from the U.S. Geological Survey. Analysis by the Pacific Institute.