8 Jan 2004

ATTN: Paul Dabbs

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Paul,

Here are my remarks prior to Lloyd's latest, etc. (pages 2-9)

For what they're worth.

Anisa

Chapter 1
Plan Overview

put p9 here vision, Go etc.

Introduction

[THIS SECTION WILL INCLUDE A FEW OPENING PARAGRAPHS WITH SIZZLE – THE GOAL WILL BE TO CAPTURE THE READER'S ATTENTION AND CREATE A SENSE OF URGENCY AND NEED FOR ACTION.]

This update of the California Water Plan with provides decision-makers, resource managers, water suppliers and all water users a ~~forward-looking planning~~ framework and a strategic water plan for the next quarter century. ~~with~~ The Plan includes specific goals, objectives, findings and recommended actions that would:

- Provide adequate, reliable and sustainable water of suitable quality for all beneficial uses to the year 2030.
- Strengthen the State of California's leadership, coordination, oversight and public investment for protecting and developing water resources and water infrastructure, our public trust assets.
- Recognize and manage water as a public trust asset.
- Provide State assistance to local water planners, agencies and governments, ~~using recommended principles,~~ to initiate and expand regional and inter-regional integrated resource planning.
- Encourage and support local and regional planners to implement diverse water management strategies ~~in their integrated resource plans~~.
- Assist local governments and agencies to ~~improve the~~ coordinate ~~of~~ land use planning with water planning and management.
- Address serious gaps in data and analytical tools, improve and simplify public access to water information, and support investigations, research and development of promising new technologies.

Organized in four volumes, this Plan includes the following information ~~in support of actions and recommendations~~ presented in the Water Plan Implementation and Investment Guide, summarized in this chapter and described in detail in Chapter 6 (Implementation and Funding): **[NOTE: it has been suggested that we include a fifth volume for the 25 Resource Management Strategy narratives, rather than an Appendix to Volume 1.]**

nasty sentence

good idea

The California Water Plan is the State's strategic plan for managing and developing water resources statewide. ~~The Water Plan is a document that DWR periodically updates in accordance with the Water Code.~~ The California Water Plan was first published by DWR as Bulletin 3 in 1957. Since then, DWR has prepared seven Water Plan Updates, published as the Bulletin 160 series. The Water Code now requires DWR to update the California Water Plan every five years. DWR published the last Update in 1998.

redundant

- Statewide water challenges, programs, resources, and infrastructure (Chapter 2).
- How water is managed, allocated, used, and regulated in California (Chapter 2).
- Estimates of current statewide and regional water supplies and uses (Chapter 2 and Volume 2).
- Significant uncertainties and risks that ~~should be considered in~~ impact water planning, including multi-year droughts ~~several~~ of plausible scenarios for estimating future water supplies and uses; ~~and a~~ work plan for filling data gaps and developing analytical tools for subsequent phases and updates of the Water Plan (Chapter 3).
- Practices, issues, roles and strategies for improving regional integrated resource planning and management (Chapter 4).
- 25 resource management strategies included in the Implementation and Investment Guide (Chapter 4 and Volume 1 Appendix).
- The State's role, responsibilities and commitments, and principles for providing State assistance for local and regional planning and management (Chapter 5).
- Reports on each of the 10 hydrologic regions, mountain counties, Sacramento-San Joaquin Delta, and southern California area (Volume 2 Regional Reports).
- Supplemental reference information (Volume 3 Reference Guide).
- Documentation on data, tools and methods (Volume 4 Technical Guide).

increase # of bullets

This Water Plan Update is based on the best available data and information. It also documents ~~gaps in sufficiency of~~ areas of insufficiency in data and analytical tools. Prepared in a phased work plan, the Department of Water Resources will further quantify and improve estimates for future water supplies and uses presented in this report over the next two years. As a strategic plan, findings, recommendations and the action plan presented will be periodically reviewed and revised; DWR will publish five other Water Plan Updates during this Update's planning horizon to 2030.

CH 2

CH 3 CH 4 CH 5

Key Findings

what does this mean? delete

1. ~~All sectors of California depend on water~~. Efficient management and development of sufficient, reliable and sustainable water supplies are key to the state's success and quality of life. California must continue to invest significantly in a diverse and balanced portfolio of water management strategies, or our economy, environment and quality of life will decline. Groundwater overdraft would worsen, water quality would decline, aquatic ecosystems would be further stressed, and California's economy and agricultural industry would suffer.
2. Like fires and earthquakes, future droughts are certain; only the durations and intensities are unknown. Experience with past droughts, most notably in 1976-1977 and 1987-1992, demonstrates the economic and environmental impacts of critical water shortages throughout California.
3. California's population increased by about 6 million people since the ~~last~~ drought of 1987-1992 ended. The current population of over 36 million is projected to increase by another 17 million people to 53 million by year 2030.
4. Electronic, aerospace, agriculture, banking, film, tourism and recreation industries have created a $1.4 trillion economy, the fifth largest in the world. They are all dependent ~~in one way or another~~ on reliable supplies of water of adequate quality.
5. California is the top-ranked state in the value of agricultural production. The State contributes over half of the nation's fruit, nut, and vegetable production. Providing food and fiber crop products to Californians, as well as to other states and countries, consumes more water than for all other household needs. In some areas agricultural water supplies have been reduced because of transfers to urban areas and for environmental restoration and from increased groundwater overdraft. alternative
6. California has unique environmental diversity, leading the nation in the number of native plant and animal species. However, California has experienced aquatic and riparian habitat degradation and freshwater biodiversity declines throughout the state. On many rivers and streams, flows have been modified to the extent that they do not resemble natural hydrographs, contributing to the loss of ecosystem functions and species, impacts on commercial fisheries, and degraded water quality. what about eco systems
7. Some of our water supplies are affected by natural and human-made contaminants. This can lead to expensive treatment requirements and render some water supplies unsuitable for use.
8. The continued unsustainable overdraft of some of California's groundwater basins further reduces available water supply and, in some areas, water quality.
9. Many Native Americans have unmet water needs. In the North Coast region there ~~thousands of Native Americans do not have piped~~ water to their homes. A large part of the tribal water needs are for instream flows and other water bodies that support environmental and cultural needs for fishing, hunting, and trapping.

TD Resources

10. The State has a responsibility to ensure that environmental justice is afforded to all Californians, namely, the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies.
11. Public agencies have a responsibility to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses, whenever feasible.
12. As a result of global climate change California hydrology will not be the same as we have experienced in the past century. While many uncertainties remain, primarily on the degree and timing of change ~~to be expected~~, it is likely there will be significant reductions to the Sierra snowpack. This has major implications for water supply, flood management and ecosystem health.
13. Existing data and analytical tools are not capable of sufficiently answering all relevant questions. As California's water demands grow and change, the need for more accurate information becomes critical for gaining greater benefits from limited resources and reducing controversy and conflicts in adapting our water system to new demands.
14. Given the current patterns of water use, California has sufficient resources to meet many, but not all, of its water demands with its present population. In general,
    a. Except in multiyear droughts, many urban areas have sufficient supplies for existing populations. California's urban areas use about the same amount of water today as they did in the mid-1990's. They have accommodated a population growth of over 3.5 million Californians largely through increased water use efficiency and recycling.
    b. In average years, most but not all agricultural demands are met.
    c. Many rural residents on small water systems or wells experience limited water supply during droughts.
    d. Over the past few decades, we have dedicated more water for restoring impacted ecosystems, but some requirements are not always met.
    e. California continues to rely on an unsustainable overdraft of some of its groundwater basins.
    f. Water quality is generally good but many areas face specific water quality problems.

15. Based on three scenarios for 2030 considered for this Water Plan Update, namely, "Current Trends Continued", "High Efficiency" and "Resource Intensive", between 3.5 and 6 million acre-feet will be needed in average water years for an additional 17 million residents, to sustain economic growth and California's agricultural industry, to eliminate groundwater overdraft, and to meet environmental water objectives. It is important to note that this water can only be provided by a diversified portfolio of actions including significant amounts from programs to improve the efficient use of already developed water such as water conservation and recycling. This estimated range assumes (scenario details in Chapter 3):

    a. 2 million - 3 million acre-feet for a projected population growth of 17 million more Californians; **[NOTE: Staff is working on this range.]**
    b. 1 million - 2 million acre-feet for eliminating groundwater overdraft statewide (from California's Groundwater, Bulletin 118-03);
    c. 0.5 million – 1.0 million acre-feet for meeting environmental water objectives; and
    d. Agricultural water use stabilizes at about year 2000 level, assuming stabilizing irrigated land acreage and continued historical trend in agricultural productivity and efficiency improvements (about 50 percent more crop production per acre-foot in the past 25 years). Other factors such as conversion of farmland to urban uses and international trade competition are predicted to limit increases in irrigated acreage. **[NOTE: Staff is working on this.]**

16. Throughout California stakeholders are beginning to work together in their regions and watersheds to develop programs that address multiple benefits. More comprehensive planning is beginning to consider all water demands and considering the role of local and regional water supplies as part of the mix of resources to help meet the larger statewide supply objectives. Today's responses to California's water challenges include a broader range of water management activities than historically thought to be available.

17. This Water Plan Update includes an Implementation and Investment Guide with 25 diverse resource management strategies that provide local, regional and statewide planners considerable investment choices and capacity, but they will require significant resources for implementation, including public funds. In addition to water management strategies like water use efficiency, recycling, storage and conveyance, this Plan includes strategies for recovering groundwater overdraft, improving water quality, watershed management, ecosystem restoration, urban and agricultural lands management, urban runoff and floodplain management, recreation; as well as economic incentives.

For Discussion Purposes Only
Has Not Been Approved by DWR Management or Advisory Committee

Key Recommended Actions

1. Invest $1 billion per year of State funds, with matching federal and local funds ($75 billion by 2030) to implement the actions in the Implementation and Investment Guide. This includes implementation of the Bay-Delta Program Stage 1 actions in the Record of Decision as well as the recommendations of the Water Desalination Task Force, the State Recycling Task Force, the Stormwater Quality Task Force, the Floodplain Management Task Force, and California's Groundwater (Bulletin 118-03).
2. The State should provide regions with incentives and assistance to help them to plan and implement diversified water portfolios including: system reoperation, urban and agricultural water use efficiency, municipal water recycling, conjunctive management and groundwater storage, conveyance, water desalination and water transfers. The regions should invest in multi-objective strategies to reduce pollution and stormwater runoff, improve groundwater recharge and floodplain management, improve drinking water quality, and restore impacted ecosystems.
3. Regions should continue developing and implementing their integrated resource plans where possible on a watershed basis. DWR should revise its Strategic Business Plan to more effectively provide regions with guidance, technical and administrative assistance to support their integrated resource planning.
4. The State should carry out its constitutional, statutory and regulatory responsibilities for leading, planning and overseeing many aspects of California's water resources and management that the regions cannot accomplish on their own. As part of that, the State should complete investigating the Bay-Delta Program's five surface storage proposals and pursue implementing the storage projects that meet the Bay Delta Program principles for technical, environmental and economic feasibility.
5. The State's plan and infrastructure investments should be consistent with the three legal requirements of Government Code Section 65042: promote infill development and equity; protect environmental and agricultural resources; and encourage efficient development patterns.
6. The State should work with researchers to better monitor and predict the effects of global climate change on California's water systems and the environment. This includes development of alternative climate change hydrologies to test their effects. The results should be considered in water management decision making.
7. The State should expand the role of California's Native Americans at all stages of the state's water planning process, provide assistance as needed for their participation, and with federal government cooperation, assist in recognizing and accommodating tribal needs.
8. The State should ensure that environmental justice is afforded to all Californians, particularly disadvantaged citizens and vulnerable communities that have experienced disproportionate health and environmental impacts.

9. Public agencies ~~should~~ must take the public trust into account in the planning and allocation of water resources, and to protect public trust uses, whenever feasible. The State ~~should~~ may exercise continued supervision over its navigable waters and the lands beneath them to protect the public's rights to commerce, navigation, fisheries, recreation, ecological preservation and related beneficial uses.
10. As soon as practicable, a Governor's Strategic Water Team ~~should be~~ established to strengthen communication, coordination and cooperation among State departments dealing with water, and to ensure that their strategic planning and implementation are consistent with the Governor's water policies.
11. Cities, counties and LAFCO's are encouraged to include a Water Element in their next General Plan update to improve coordination of land use planning and water planning and management. The State should provide regional and local planners technical, administrative and financial assistance in implementing relevant legislation such as SB 221 and 610 and related State policies.
12. DWR ~~should~~ develop and maintain the California Water Plan Information Exchange (Water PIE), a data management system to assist regional and local agencies and governments prepare their integrated resource and watershed plans.
13. DWR ~~should~~ implement the work plan to improve the data and analytical tools for subsequent phases and updates of the Water Plan and regional planning efforts.
14. Future updates to the California Water Plan ~~should~~ continue to be developed with the active input of a diverse Advisory Committee.

The Water Plan

Vision for 2030

California has adequate, reliable and sustainable water of suitable quality for all beneficial uses.

Goals for 2030

- Maintain and improve the quality of life for a projected 53 million Californians, 17 million more people than today.
- Sustain California's economic growth, business vitality and agricultural industry.
- Protect and restore California's impacted ecosystems.
- Recognize and manage water as a public trust asset.
- Stronger State leadership, coordination, and oversight and more public investment for protecting and developing water resources and water infrastructure, our public trust assets.
- Regions play the central role in their integrated water and resource planning, with State assistance based on recommended incentives and principles.
- Local and regional planners diversify and increase the management strategies in their integrated resource plans, with State support and assistance.
- Local governments and agencies improve the coordination of land use planning with water planning and management.
- Reduced gaps in key data and analytical tools, improved public access to water information, and more State-supported investigations, research and development of promising new technologies, help planners make more informed (less risky) decisions for statewide, regional and local water management.

Water Management Objectives for Meeting Goals

- Integrate & optimize management strategies
- Provide water supply benefits (reduce consumption or augment supply)
- Increase drought resiliency
- Improve water quality
- Increase operational flexibility & efficiency
- Improve flood management
- Increase energy generation or reduce use
- Increase recreation opportunities
- Enhance instream, riparian or terrestrial ecosystems
- Reduce groundwater overdraft
- Reduce pollution
- Reduce runoff, drainage or tailwater
- Reduce uncertainty or minimize risk