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Analysis of California's Propositions 1E and 84:

Funding the State's Water and Flood Control Infrastructure

By Skaidra Smith-Heisters and Adam B. Summers

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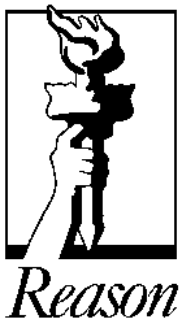

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Executive Summary

While both Propositions 1E and 84 are being sold as necessary to improve vital infrastructure, there is actually very little infrastructure support included. Rather, the bonds offer token funds for real infrastructure projects and represent a grab-bag of funding for environmental programs, parks and recreation facilities, and non-infrastructure-related water programs.

Proposition 1E authorizes $4.1 billion in new General Obligation debt with annual debt service payments of $266 million and a total cost to taxpayers of $8 billion. These monies would be used for California's aging system of levees, overflow weirs, and channels. Approximately $3 billion of this total would be dedicated to the state Central Valley Flood Control System. Of monies from the bond measure, 73 percent or more of the fund is for as-yet unidentified projects in the Sacramento-San Joaquin Delta, and 93 percent of the fund is available to projects without any requirement for federal and/or local matching funds.

Since 1996, California voters have authorized $11 billion in General Obligation bonds for water and resource-related purposes. Approximately $1.4 billion of this funding remains available. Proposition 84 would authorize another $5.4 billion in General Obligation debt with annual debt service costs of $350 million and a total cost to taxpayers of $10.5 billion over the life of the bond. While the title of the measure suggests that water quality, safety and supply (as in drinking water) are the primary aims of the bond, this is quite misleading. The funds from the bond would go to a range of purposes, including:

- $1.5 billion for water quality projects (mostly through grants to local agencies)
- $928 million for projects to protect rivers, lakes, and streams

- $800 million in additional funding beyond Proposition 1E for flood control projects
- $580 million to fund “sustainable communities” and “climate change reduction”
- $1.5 billion for planning and feasibility studies concerning water supply and flood control

While there is a clear state interest in preserving the water supply which flows through the Delta, General Obligation debt is a poor and indirect method of funding these improvements. There is no guarantee that the funds will be used to address priority flood control and levee projects that increase the state’s long-term water infrastructure and financial security. In fact, the opposite is likely as the system does a poor job of prioritizing needs and pork barrel projects vie for a share of the funds. Why should California taxpayers take on another $10.5 billion in costs to fund more of the same system that hasn’t fixed our water and resource issues in the past? In recent years we have approved $11 billion in bonds for these purposes and little went to actual infrastructure. Instead, it is mostly comprised of funding for unrelated purposes, such as land conservancy purchases, protection of water quality for non-potable uses, funding for parks and nature education facilities like museums and aquariums, and programs for “sustainable communities” and “climate change reduction.”

Policymakers should adopt appropriate user-fees within drinking water rates, upon land-users that are protected by flood-control facilities, and upon users of recreational facilities. Adopting this “user pays” system would not only fund needed infrastructure improvements but would also encourage sensible land use in and around flood plains. Asking taxpayers to shoulder this obligation encourages inappropriate land-use within flood plains, worsening the potential impact of future flooding, and allows the legislature to avoid responsible budgeting for ongoing water and resource needs and instead rely on future generations to pay for their commitments through debt.

Table of Contents

Part I

Introduction

The San Francisco Bay/Sacramento-San Joaquin River Delta is the largest estuary on the nation's west coast, and provides for two of the world's biggest water and power development and conveyance systems: the California State Water Project, and the massive federal Central Valley Project. This combined infrastructure is critical to water supply and flood control for much of the state.

Farmers in California's Central Valley began the construction of canals and levees to increase agricultural land values in the 1850s. This initially informal and crudely engineered patchwork of irrigation and flood control mechanisms has taken on a greater significance over time, as both the value and the vulnerability of assets protected by the levee system increase with every passing year.

The initial units of the Central Valley Project date back to 1937, while construction of the State Water Project facilities was initiated in 1961. Today, the state's water infrastructure includes 1,595 miles of levees and 55 flood control structures in the Central Valley. The system provides drinking water to 23 million Californians (64 percent of the state's population) and irrigates 755,000 acres of farmland.[1] An additional several hundred miles of levees are maintained by local municipalities.

This November, Californians will vote on two bond propositions related to water and flood control infrastructure in the state: Proposition 1E, the "Disaster Preparedness and Flood Prevention Bond Act of 2006"; and Proposition 84, the "The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006."

Both bond propositions address a wide range of issues in the Sacramento-San Joaquin Delta and across the state, which proponents of the measures claim have been under-funded and now pose a serious threat to the well-being of Californians. While both are being sold as necessary to improve vital infrastructure, there is actually very little infrastructure support included. Rather, the bonds offer token funds for real infrastructure projects and represent a grab-bag of funding for environmental programs, parks and recreation facilities, and non-infrastructure-related water programs. Bonds are a costly way to finance ongoing programs, which are better suited to General Fund appropriations through the normal annual budgeting process, if they should be funded at all.

California taxpayers would be better served by an approach that encourages those that actually use our infrastructure and facilities—be they water or parks—to pay for them, shifts risk and flood damage liability from the state to those who choose to live and do business in flood plains, and adopts a risk-based levee repair analysis to direct resources where they are needed most. The use of private-sector resources and public-private partnerships could provide greater funding for infrastructure improvements, and such a "user pays" model would be fairer to taxpayers and ratepayers. These alternatives would better ensure that the state's water and flood control needs are met cost-effectively and equitably, while reducing long-term risks for state residents and taxpayers.

California's Water/Wastewater Infrastructure Is in Need of Repair

The deficiency in California's water and wastewater infrastructure is real. The state did not fare so well in the American Society of Civil Engineers' *2005 Report Card for America's Infrastructure*. Its wastewater infrastructure placed among the top three infrastructure concerns (along with roads and schools). Other findings of the ASCE's *2005 Report Card* include:

- There are 44 state-determined deficient dams in California.
- California has 336 high hazard dams. A high hazard dam is defined as a dam whose failure would cause a loss of life and significant property damage.
- California's drinking water infrastructure needs an investment of $17.5 billion over the next 20 years.
- California loses 222 million gallons of drinking water a day due to leaking pipes.
- California has $14.4 billion in wastewater infrastructure needs.

While the ASCE's *2005 Report Card* is a fairly comprehensive review of major infrastructure, evaluating 15 categories of national and state-by-state infrastructure, its California analysis actually understates the state's infrastructure needs because it does not address the significant needs of the state's sizeable levee system. Including these needs paints an even more stark picture of the state of California's water and other infrastructure.

Source: American Society of Civil Engineers, *2005 Report Card for America's Infrastructure*, March 9, 2005, pp. 68-71, http://www.asce.org/files/pdf/reportcard/2005reportcardpdf.pdf.

Part 2

Overview of Proposition 1E and Proposition 84

Both bonds contain funding for water and levee infrastructure, intended to provide flood protection and secure the state's water supply against losses from levee breaks.

Proposition 1E, the "Disaster Preparedness and Flood Prevention Bond Act of 2006," would authorize the sale of $4.1 billion in general obligation bonds to establish a bond fund for projects to be described in the "State Plan of Flood Control" (a proposed compilation of projects in the Sacramento River Flood Control Project as well as projects in the San Joaquin River watershed described in the California Water Code) and fund other projects yet to be identified. An additional $3.9 billion in interest payments will be required over 30 years, bringing the total cost of the proposal to $8 billion.

The bulk ($3 billion) of Proposition 1E is aimed at evaluating, repairing, and constructing levees. This portion of the bond limits the state's share of funding to $200 million per project, not including flood control improvements to Folsom Dam. An additional $500 million is provided for flood control and flood prevention projects authorized by the State Water Resources Law of 1945, the Flood Control Law of 1946, or the California Watershed Protection and Flood Prevention Law. The remainder of the funds are reserved for grants for certain stormwater flood management projects ($300 million) and various activities related to enhancing flood protection corridors and bypasses, including acquiring easements, constructing new levees, relocating or flood-proofing structures, and flood plain mapping ($290 million).

The percentage of the fund dedicated to actual infrastructure work is impossible to calculate given the lack of detail in the bond proposal. It tags 73 percent or more of the funds are for as-yet unidentified projects in the Sacramento-San Joaquin Delta, and 93 percent of the fund is available to projects without any requirement for federal and/or local matching funds.

While Proposition 1E is fairly narrowly tailored to levee infrastructure, Proposition 84 contains funding for a wide range of programs, from water infrastructure to land and waterways conservation to parks to other environmental programs. Most of these types of programs have typically been funded through the general appropriations process, although some funding has come from state bond initiatives, particularly in recent years.

Proposition 84, the "The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006," would authorize the state to issue $5.4 billion in bonds for numerous water, conservation and environmental programs for purposes such as improving water quality and flood control; protecting rivers, lakes, streams, beaches, bays, and coastal waters and watersheds; conserving forests and wildlife; providing additional funding to state parks and nature education facilities; and promoting "sustainable communities" and "climate change reduction." An additional $5.1 billion in interest payments will be required over the next 30 years, bringing the total cost of the bond to $10.5 billion.

Many programs included in the bond measure are unrelated to drinking water or flood control.

The largest element of Prop. 84 is $1.525 billion for water quality programs, including regional grants totaling $1 billion, followed by rivers, lakes, and streams protection ($928 million) and flood control projects ($800 million). The measure provides $580 million for environmental programs to build local and regional parks in urban areas, reduce automobile use, encourage higher-density development, and reduce water and energy consumption; $540 million for the protection of beaches, bays, and coastal waters and watersheds; $500 million for state parks and "nature education facilities" such as museums and aquariums; and $450 million for forest and wildlife conservation. The remaining $65 million is reserved for planning and feasibility studies related to the state's current and future water supply, conveyance, and flood control system needs.

Many programs included in the bond measure are unrelated to drinking water or flood control. None of the fund is for the construction of major water infrastructure, and 1.2 percent of the fund is for statewide water planning and design.

The last 10 years have seen many similar bond measures in recent years—five of them totaling over $11 billion. Yet we still have unmet infrastructure needs because those bonds also frittered away billions on non-infrastructure programs.

Prop. 1E Overview

Effective: Nov. 8, 2006 – July 1, 2016

- **$3B** (73%) for "Levee Repair and Maintenance"—projects in the "State Plan of Flood Control," with no more than $200M expended on any single project (excluding Folsom Dam improvements)
- **$500M** (12%) for "Flood Control Subvention Projects"—projects not part of the "State Plan of Flood Control" authorized under various state laws
- **$290M** (7%) for "Flood Protection Corridors and Bypasses"—acquiring easements and interests in real property, "providing incentives for maintaining agricultural uses of real property that is located in the flood plain," flood plain and flood hazard mapping and levee construction
- **$300M** (7%) for "Stormwater Flood Management Projects"—projects not part of the "State Plan of Flood Control" with a non-state cost share of at least 50%, consistent with regional water quality control plans

Total: **$4.1 billion**

State cost of about $8 billion over 30 years to pay off both the principal and interest

Prop. 84 Overview

Effective beginning: November 8, 2006

- **$1.525B** (28%) for water quality
- **$928M** (17%) for protection of rivers, lakes, and streams
- **$800M** (15%) for flood control
- **$580M** (11%) for "sustainable communities" and "climate change reduction"
- **$540M** (10%) for protection of beaches, bays, and coastal waters
- **$500M** (9%) for parks and natural education facilities
- **$450M** (8%) for forest and wildlife conservation
- **$65M** (1%) for statewide water planning studies

Total: **$5.4 billion**

State cost of about $10.5 billion over 30 years to pay off both the principal and interest

Part 3

Challenges to Flood Control in the Bay-Delta

Fixing the levees and flood control system in the Bay-Delta is no simple matter. Not only do we face digging out from years of underinvesting in flood control infrastructure, we have disrupted the natural floodplain. The various responsible agencies involved lack coordination, and there are liability and legal barriers to making improvements.

One major challenge is the lack of natural floodplains and basins. They provide the most cost-effective means of flood storage and conveyance, with added benefits such as water storage, aquifer recharge and wildlife habitat. However, many waterways in the Sacramento-San Joaquin Delta are now channelized. As former floodplains are converted to agricultural uses, the valley soils subside. Where urban development occurs, impervious surfaces exacerbate downstream flooding. Many areas of the delta, including "islands" created by levees and waterways, are now 15 to 25 feet below sea level, and the inundation of inland agricultural areas with saltwater from San Francisco Bay is prevented only through an elaborate system of water management.

Management of this man-made system is a challenge. Coordinated management of the state's water and flood control infrastructure is a relatively recent development, initiated under the CALFED Bay-Delta Program, created in 1994, and the California Bay-Delta Authority, established in 2003. CALFED provides a framework for numerous state and federal agencies charged with improving water supply, water quality, levee system integrity and environmental values, including: the California Department of Water Resources, Department of Fish and Game, Reclamation Board, State Water Resources Control Board, and Environmental Protection Agency; and the United States Bureau of Reclamation, Fish and Wildlife Service, Geological Survey, Bureau of Land Management, Environmental Protection Agency, Army Corps of Engineers, and National Marine Fisheries Service.

Between 1986 and 2003, the Army Corps of Engineers evaluated 1,059 miles of levees in the Sacramento River Flood Control Project, finding and repairing 89 miles of levee at an estimated cost of $145 million. The Department of Water Resources now considers the evaluation criteria used in that phase of improvements to be outdated.[2]

Disagreement over the extent of the problem and needs is compounded by issues of liability. A re-definition of state liability for the levee system was established through *Paterno v. State of*

California (Nov. 26, 2003). In the case, the court ruled that, based on the California constitutional provisions regarding inverse condemnation, "when a public entity operates a flood control system built by someone else, it accepts liability as if it had planned and built the system itself." As a result, the state paid $464 million in settlement for damages caused in 1986 when a levee constructed in 1904 for local agricultural interests failed and flooded the town of Linda. Subsequently, another $45 million was paid to settle levee failure claims from the 1997 flood at Arboga.

Water and flood control infrastructure has been easier to fund through state bonds (where only a simple majority vote is required) than through local bonds or assessments (which require a supermajority, two-thirds voter approval). The *Paterno* case adds a disincentive for local flood control agencies to approve necessary assessments, because the cost of any flood damages is likely to be borne by the state.

Meanwhile, the costs keep climbing. Storms in December 2005 and January and April of this year caused another cycle of flooding in the Bay-Delta. The U.S. Army Corps of Engineers surveyed damaged areas of the levee system in June and reported that 35 sites protecting urban areas and 46 sites protecting undeveloped areas were at risk of failure before the next flood season, at an estimated cost of $162 million (the Army Corps of Engineers uses an average cost estimate of $4,000 per linear foot for levee repairs in the Bay-Delta). The cost of flood damage repairs such as these is a federal responsibility under the Emergency Rehabilitation of Flood Control Works program, but because federal funds were not immediately available, Governor Schwarzenegger placed the $4.09 billion Proposition 1E on the November ballot. The administration's stated intent is to use these funds to restore the damaged sites to pre-flood conditions and make an initial investment in long-term flood preparedness, with $35 billion in spending proposed for the next 10 years. Twenty-one billion dollars of the funds in the governor's plan would come from federal and local sources.

As originally envisioned, the CALFED Bay-Delta Program was supposed to spend $8.7 billion on new programs and projects in its first stage, from 2000 to 2007, with costs shared equally between federal, state, and local governments, but underinvestment has occurred at every level.[3]

The Department of Water Resources estimates that $1 billion to $1.5 billion will be needed to upgrade levees to provide flood protection for urban areas in the Central Valley. In addition, a similar amount will be needed just to rehabilitate Central Valley levees to their original design standard (which is not great enough to provide protection to current and future urban areas). Moreover, at least $100 million will be needed to conduct a comprehensive assessment of the levee infrastructure's structural integrity.[4]

Costs of levee repairs are also substantially increased by modern environmental review and multi-use requirements that make flood control improvements a more involved undertaking. According to State Sen. Dick Ackerman (R-Irvine), "As many as seven state and federal agencies enforce dozens of permits and laws for flood control projects. Regulatory delays have pushed projects out five years or more, and in some cases doubled and tripled overall costs."[5]

Part 4

Problems with the Bonds' Approaches

A. Proposition Claims Mislead Voters

Proponents of Proposition 1E make use of the plight of those who lost their homes to Hurricane Katrina to make a case for fast implementation of "emergency" bond funds. While California does indeed have serious infrastructure needs, it should be noted that most of the funds made available by the bond would protect *agricultural land*, not homes. Likewise, the real threat in California isn't hurricanes, but earthquakes, and it is not clear that the improvements proposed under the bond-funded measures adequately provide protection of infrastructure such as the California Aqueduct in the event of a major earthquake.

While both bonds are being promoted as necessary means to improve vital infrastructure, there is actually very little infrastructure support identified in either measure. Most of the programs included are ongoing, and thus better suited to General Fund appropriations through the normal annual budgeting process.

The largest single spending item ($1 billion) contained in Proposition 84 is dedicated to "grants for projects that assist local public agencies to meet the long-term water needs of the state, including the delivery of safe drinking water and the protection of water quality and the environment."[6] This imprecise authorization opens the door to spending on all sorts of programs, not just those related to water quality.

Imprecise authorization opens the door to spending on all sorts of programs, not just those related to water quality.

Proposition 84 is so misleading, in fact, that several municipal water districts actually oppose it. The proposition contains no funding for the actual construction of major water infrastructure. As with previous measures, this "water bond" is mostly comprised of funding for unrelated purposes, such as land conservancy purchases, protection of water quality for non-potable uses, funding for parks and nature education facilities like museums and aquariums, and ideologically driven special interest programs for "sustainable communities" and "climate change reduction."

This lack of focus on infrastructure improvement has led local agencies such as the Fallbrook Public Utilities District, Olivenheim Municipal Water District, Valley Center Municipal Water District, and Wynola Water District to formally oppose Proposition 84 and encourage other water districts to do likewise. Still other water districts are grudgingly supporting the measure merely because they fear burning bridges with bond proponents and legislators that can provide them with more money in the future.[7]

B. Fiscal Irresponsibility

According to the Legislative Analyst's Office (LAO), for every dollar borrowed via general obligation bonds, the state (i.e., taxpayers) will have to pay back $1.85 in order to cover the additional expense of the interest payments on the bonds.[8] While inflation dilutes these costs somewhat, the LAO estimates that, factoring this in, bond financing will still cost 25 percent more than direct appropriations, or the "pay-as-you-go" approach.[9] This makes bond funding a very expensive means of financing.

The state is already awash in debt that will saddle future generations with heavy burdens. General obligation bond debt has increased significantly, particularly in recent years. The state issued 2.5 times as much debt in FY 2005-06 as it did in FY 1995-96, and over 10.5 times as much as in FY 1985-86.[10] Debt payments crowd out not only other government spending, but also private spending. The money spent on interest payments for bonds could surely be put to better use. The state could use those funds to build more infrastructure or fund other high-priority programs, and if such "extra" funds are not absolutely necessary, taxpayers could certainly use that money in their pockets. Just as large amounts of household debt hurt individuals and families, large government debt hurts the state's economy by diverting resources that would otherwise be used for economic growth to debt service.

Given the state's history of structural budget deficits, tax increases are the most likely means for the state to pay off its accumulated debt.

Campaigns promoting both bonds state that the measures will not raise taxes. According to Proposition 84 advocates, "The bond will be paid back through existing resources in the state's General Fund, NOT through new taxes."[11] Yet, given the state's history of structural budget deficits—expenditures for the current fiscal year are expected to exceed revenues by $5 billion, and deficits of several billion dollars are projected for FY 2007-08 and FY 2008-09 as well[12]—existing sources of revenue are not sufficient, and ultimately tax increases are the most likely means for the state to pay off its accumulated debt.

Finally, the bonds force Californians to pay at the state level for levee repairs that are the responsibility of federal or local governments. Many of the state's levees were built by the U.S.

Army Corps of Engineers. As such, their maintenance is the responsibility of the federal government. Californians already pay federal taxes for this purpose, and paying again in the form of state general obligation bonds is a form of double taxation. Maintaining a strong and open relationship with the administration in the White House and the appropriate directors and managers of the Corps of Engineers and other relevant departments is crucial to ensuring that the federal government pays its share of California's levee needs. Governor Schwarzenegger's discussions with the Bush administration about the levee issue and meetings with California's representatives in the U.S. Senate and House of Representatives this year represent an important step in pursuing this goal.

For every dollar borrowed via general obligation bonds, taxpayers will have to pay back $1.85 in order to cover the additional expense of the interest payments on the bonds.

C. Lack of Priorities and Performance Measures

Neither measure contains real mechanisms to ensure accountability or to demonstrate measurable benefits from the bond projects.

Proposition 1E does not list identified needs for which bond funding is being sought, and no prioritization of projects is given, except that selection and design should achieve "maximum public benefits." The bond asks voters to make a leap of faith and trust that the most pressing needs will be addressed first—or at all. The bond gives too much discretion to politicians to choose how to spend the funds. Appropriate expenditures of the bond fund will depend on future legislation to help define planning priorities.

California has authorized $11.1 billion in water and resources bonds in just the last decade. (Note that this includes only the principal on the bonds. It does not include interest due on the bonds, and is not adjusted for inflation.) Propositions 1E and 84 are similar to these past measures, including the fact that very little of the money actually goes toward building and improving water infrastructure.

Because projects funded through CALFED have not been systematically evaluated and quantifiable performance measures required to audit program successes are largely lacking, the value received by past bond spending on water and flood control infrastructure is difficult to determine.

Contrary to the bond proponents' claims, the decision to finance California's water and flood control infrastructure with bonds is not an "emergency" measure, but our standard mode of operation—and it is not working.

Recent Water and Resources Bonds and Legislation

- **Prop. 204** – "Safe, Clean, Reliable Water Supply Act of 1996" (*$995 million* including $88 million for levees, flood control, and CALFED administration)
- **Prop. 12** – "Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000" (*$2.1 billion*)
- **Prop. 13** – "Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act of 2000" (*$1.97 billion*, $630 million for projects enhancing water supply reliability and $292 million in flood control projects)
- **Prop. 40** – "California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002" (*$2.6 billion*)
- **Prop. 50** – "Water Quality, Supply and Safe Drinking Water Projects. Coastal Wetlands Purchase and Protection." (*$3.44 billion*, including $70 million specifically to the CALFED Levee System Integrity Program)
- **SB 264** (Machado) – Delta Levees. Extended the Delta Flood Protection Fund for the Delta Levees maintenance and subvention program to July 1, 2008. (Status: Chapter 583, Statutes of 2005).
- **AB 798** – Would extend Delta Levee Maintenance Subvention Program to July 1, 2010, and require DWR to identify levees that are at risk of failure based on a specified evaluation of Delta levees, and to make by January 1, 2008, funding priority recommendations to the legislature and governor for levee maintenance or improvement projects. (Status: in legislature).
- **H.R. 2419** (November 2005) – "Energy and Water Development Appropriations Act, 2006." Funds programs of the Department of Energy, the Department of the Interior's Bureau of Reclamation, the Army Corps of Engineers, and several other agencies, and provides funds to help protect the nation's environment ($40.9 million to strengthen California levees and flood control systems, $37 million for CALFED).
- **AB 142** (March 2006) – $500 million to immediately help repair river levees. (Status: Chapter 34, Statutes of 2006)
- June 2006 – Congress provided a supplement of $30.4 million to restore California's levees ($22.3 million to strengthen California levees and flood control and $7.1 million for levee improvements for South Sacramento streams – Feinstein amendments). Senate Appropriations Committee approved $75.5 million to restore aging California levees and provides hundred of millions more for CALFED and other California energy and water projects.

For a more detailed list of recent water legislation and water bonds, see California Department of Water Resources, *California Water Plan, Update 2005*, Volume 4, pp. 891-902, http://www.waterplan.water.ca.gov/cwpu2005/index.cfm.

Part 5

Addressing California's Water and Levees Infrastructure Needs: Alternatives to the Bond Proposals

California's water and levee infrastructure is in serious need of improvement, but Propositions 1E and 84 are not the solution. Periodically throwing more money at the problem—and much of it not even related to the problem at hand—without providing the proper incentives to achieve results has never been a winning strategy. This is no less true for the state's water and levee infrastructure.

California taxpayers would be better served by an approach that encourages direct beneficiaries of our infrastructure and facilities—such as water or parks—to pay for them, shifts risk and flood damage liability from the state to those who choose to live and do business in flood plains, reduces waste and project delays by streamlining environmental review and regulatory approval processes, and adopts a risk-based levee repair analysis to direct resources where they are needed most. The use of private-sector resources and public-private partnerships could provide greater funding for infrastructure improvements, and such a "user pays" model would be fairer to taxpayers and ratepayers.

A. Equitable Funding Through User Fees

A user fee is collected from users of a service rather than from the public in general. Many of the services that Propositions 1E and 84 would fund are used by specific and identifiable persons or properties and it makes more sense for them to pay directly for the services with a fee. For example, responsible management of residential stormwater, such as through the creation of user-fee based stormwater utilities in urban areas, encourages land-use practices that manage runoff and better utilize rainfall on site. A user fee approach more equitably manages the causes and effects of urban development and flooding. It also would help to develop a sustainable revenue flow for flood control projects, in contrast with the unpredictable funds available from bonds.[13]

The California Department of Water Resources's own recommendation as recently as January 2005 was to pay for needed repairs through a fee assessed within a Central Valley flood control assessment district (or districts), in order to "distribute the costs of flood control measures among those that benefit from them, thus relieving the general taxpayer in California of the burden," further stating, "Assessments could be imposed not only on parcels within floodplains, but also on upland areas in the drainage basins that drain into the floodplain."[14]

Improvements to drinking water infrastructure (such as those needed to protect aqueducts in the event of a major earthquake) should be paid for through water rates, in accordance with the "beneficiary pays" principle. The CALFED Bay-Delta Program is charged with administering projects in compliance with the "beneficiary pays" principle, but this term is poorly defined in the Program's mandate, and attempts to refine language related to this principle have not been successful.

Finally, as with water and levees, improvements to state parks and nature education facilities should be funded with user fees. Not only is this system more fair, since people who do not utilize (and may not even want) the facilities are not forced to pay for them, but it also encourages greater fiscal responsibility. Under a user-fee system, managers are tasked to be efficient in collecting fees and judicious in spending revenue on things that will serve the needs and improve the experiences of users, rather than on the special-interest projects of politicians and bureaucrats.[15]

Where they are feasible, pay-as-you-go financing options have much greater stability and sustainability than periodic injections of funds from state bond measures, which tend to pit regions against each other in competition for grant monies and inflate the cost of specialized labor and services required for infrastructure work during the brief period of funding.

B. Flood Liability Reform

Constitutional and legislative changes are needed to reduce taxpayer exposure to flood damage claims. The state must stop promoting incompatible use of lands in the flood plain and strictly limit government liability for damages that occur due to incompatible use. To that end, legal liability for risky land use decisions must be assigned as closely as possible to those making the decision.

The state's flood and drinking water plans should strategically address how the state can reduce dependence and liabilities associated with the extensive levee system.

Priorities for levee repair should be made with a risk-based economic analysis. Increased water conservation, water recycling, aquifer and surface water storage capacity, desalinization, and other strategies may all be necessary in order to cost-effectively diversify water resources in Southern California to reduce the risk of service disruption in the event of a major earthquake. Alternatives to levee repairs and upgrades for the protection of public infrastructure should also be evaluated, such as raising roads and paying for them with tolls. If the costs of flood prevention measures

exceed the value of assets being protected, deauthorization of related flood control projects must be sought.

Stakeholders in flood-prone areas should obtain private insurance rather than depending on state tax money for compensation of flood damages. Only a fraction of properties at risk of flooding are currently required to hold flood insurance. Legislation that would have required property owners located in the Sacramento and San Joaquin watersheds to maintain flood insurance unless the state or agency responsible for operation of the levee system protecting the property from flooding certified that the levee system protecting the property provided at least 200-year flood protection, was proposed but not approved earlier this year.

C. Public-Private Partnerships

Rather than depend upon the state for what money they can obtain from time to time, local agencies should be encouraged to access private-sector capital, through privatization of water systems or the use of public-private partnerships (PPPs) for the construction, operation and management of water facilities, to make necessary improvements in infrastructure, water quality, and water access.

More than 40 percent of drinking water systems nationwide are private, regulated utility systems. Of the 60 percent of systems owned by local governments, privatization by contracting for operations and management has grown rapidly in recent years.[16] Nearly 3000 communities in the United States have privatized operation of water or wastewater systems. Put another way, 1 of every 6 Americans gets drinking water from privately owned regulated utility systems, and roughly 1 of every 25 communities in the rest of the nation has a public-private partnership for its water or sewer system.

Those numbers alone indicate the success of PPPs for water infrastructure. When it comes to maximizing water quality, conservation, and supply reliability, public-private partnerships have become a frequent solution. Under President Clinton the EPA issued several reports documenting how local governments successfully solved water quality and supply needs with PPPs and stated "public-private partnerships can be used as a way to provide substantial benefits to both the public and private sectors, creating the classic 'win-win' situation."[17]

As with other goods and services, private water and wastewater companies have a strong interest in conservation, so that they can ensure reliable, high-quality water service, keeping their customers happy and making a profit. If the company operates under a franchise granted by the local government and customer satisfaction is too low, it will be dumped in favor of a better competitor. Ideally, depending upon regulations, prices will rise when supplies are low to encourage conservation and make sure that water supplies are directed where they are most valued.

Public-private partnerships help communities control the costs of new water, wastewater and stormwater infrastructure. A 1999 study examined PPPs in water and wastewater systems in 29 cities serving over three million customers throughout the United States. It found that all of the PPPs resulted in lower rate increases than were planned under continued government management, and at 17 percent (five) of the facilities, PPPs brought cost savings of between 10 percent and 40 percent, allowing local governments to avoid large increases in water rates.[18]

Case studies of savings abound. Annual reviews of PPPs repeatedly show they save communities between 10 percent and 40 percent. The EPA has collected a set of case studies where cities were able to meet water quality standards more efficiently thanks to privatization.[19] Contract renewal rates are also indicative, since privatization is primarily motivated by communities seeking cost savings. That 17 out of 20 privatization contracts are renewed at the end of their term indicates that communities are satisfied with the savings being achieved.

But neither are PPPs a White Knight that can ride in and rid a city council of all its water utility worries. It is not an easy, no-brainer solution to all our water ills. In fact it is a policy tool that, like all others, works well when applied properly in the right place.

The proof is in customer satisfaction: 91 percent of communities with PPPs for water or sewer systems choose to continue privatization at renewal time. And this is not because they are captive to the private firms.

The proof is in customer satisfaction: 91 percent of communities with PPPs for water or sewer systems choose to continue privatization at renewal time. And this is not because they are captive to the private firms—6 percent of communities switch to another private company when existing contracts are up, and each year about 10 communities bring services back in house. Moreover, 94 percent of communities with PPPs say they would recommend their private water manager to other communities.

The government remains responsible for that system via regulation and contract—they set standards and enforce them with either government or private operations. The partnership in a privatization and the contract that binds it must be based on visible, measurable performance, and reward private companies only if they meet the goals and performance they have promised. Nearly 3000 of these contracts have been written, so there is a lot of experience and best practice out there, and consultants who specialize in helping communities negotiate with private operators.

Local governments should be encouraged to solve their water quality and supply problems through privatization, rather than waiting for the state to periodically (and unpredictably) offer handouts paid for by taxpayers.

D. Use of General Appropriations vs. Bond Financing

To the extent that state funding is viewed as necessary (in light of other reforms such as implementing user-fees-based systems and privatization—see above), this money should come from current revenue and be included in the normal budget appropriations process. At the very least, if significant capital outlay is required for identified high-priority projects and bond funding must be used, funds should be directed only toward the actual construction and maintenance of infrastructure projects, and repayment of the bonds should be made through user fees to the greatest extent possible, rather than through General Fund monies. Seismic retrofitting of bridges has been successfully financed in this manner, by repaying bond outlays through dedicated bridge tolls.

E. Streamlining Review and Permitting Processes

Environmental review and permitting processes currently contribute to significant project delays and unnecessary cost increases for flood control and other critical infrastructure projects. Earlier this year, Gov. Schwarzenegger was able to cut through much of the red tape to obtain the necessary environmental permits and regulatory approvals for the repair of 29 critical levee erosion sites. It should not take costly and lengthy hoop-jumping or the governor's intervention to get permission to undertake vital infrastructure projects, however. Streamlining the review and permitting process by eliminating redundancy among state agencies and improving communication and coordination with the appropriate federal government agencies would reduce the costs of making necessary improvements and allow improvements to be made more quickly. Improving communication with federal agencies may also help to ensure that the federal government is aware of the state's needs so that it can properly budget its share of the necessary levee construction and repairs. This may prevent California taxpayers from being doubly taxed: once for federal taxes that are supposed to be used, in part, for federal levee infrastructure, and again for bonds or other state funds to make up for when the federal government does not pay its share.

F. Realistic Environmental and Recreational Multi-Use Objectives

Flood control and drinking water initiatives may or may not be compatible with environmental goals and recreational purposes. Where multiple uses are compatible, integrated resource management (for example, projects which address water supply, flood control, and fish and wildlife habitat issues all together) can sometimes be very desirable, but mandating that all projects meet multi-use objectives can make essential infrastructure work prohibitively expensive. Realistic assessment of the feasibility of meeting multiple objectives along flood control corridors is badly needed, and funding for critical repairs to the state's infrastructure should be used only for that express purpose. AB 1039 (Chapter 31, Statutes of 2006) would exempt specified levee and highway and bridge seismic retrofit projects funded by the Disaster Preparedness and Flood Prevention Bond Fund of 2006 from the California Environmental Quality Act (CEQA), making more efficient use of funds under this proposal.

Part 6

Conclusion

Supporters of Propositions 1E and 84 claim that these bond measures will help solve the problems of California's deteriorating infrastructure, but the lack of accountability for politicians administering the bond funds and the inclusion of unrelated and unnecessary projects makes these measures a poor choice for the funding of the state's critical water and flood control needs. Jeffrey Mount, director of the UC Davis Center for Watershed Sciences and, until less than a year ago, a member of the California State Reclamation Board, described Prop. 1E as follows: "There really is a stunning lack of detail in the bond. It's absolutely unconstrained.... My biggest fear is that this will become a subsidy for spectacular development on the flood plain."[20] Senator Tom McClintock has depicted Prop. 84 as "A grab bag of local pork projects (some exempt from competitive bidding requirements and conflict of interest laws) paid for by a generation of taxpayers."[21]

Though these aspects of the bonds are objectionable enough, the truly harmful aspect of the bonds is the top-down government approach to addressing the problems at hand. Levee construction, for example, while a political necessity, ultimately subsidizes increased use of lands in the flood plain, and subjects the state taxpayers to liability for the subsequent flood damages—a vicious cycle. The state has shown little ability to limit liability for flood damages. Instead, ever more construction in flood zones has been approved, and Proposition 1E would go a step further, actually providing financial incentives for agricultural use of the flood plain. Placing the liability on individuals and private businesses, on the other hand, would encourage these stakeholders to more seriously consider the risks involved in locating in a flood plain and promote investments in the state's levee system without forcing taxpayers from far-removed parts of the state to pay for them.

These poorly crafted bond proposals do little to ensure long-term security of either the state's infrastructure or its finances.

Incentives matter, and we should take advantage of the incentives of individuals and the private sector to arrange their lives, businesses, and property in a way that enhances and protects these vital infrastructure assets.

Californians have been presented—even threatened—with a false choice this November: either agree to pay billions and billions of dollars for our programs, or critical infrastructure will never be adequately financed and catastrophic damage will ensue. However, these poorly crafted bond proposals do little to ensure long-term security of either the state's infrastructure or its finances.

California's flood protection and water quality needs should be met with locally assessed mechanisms that efficiently fund priority projects according to the "beneficiary pays" principle, and all improvement projects should be part of a vision for limiting current and future General Fund liabilities for the safety of California's water infrastructure.

These goals can be met through user-fee models for infrastructure and facilities for everything from water to levees to parks and museums. The use of privatization and public-private partnerships can help to open up new sources of revenue, provide added accountability, and improve service levels through competition and the stronger incentives the market provides to minimize costs and maintain strong business by keeping customers satisfied. The state can further reduce costs by shifting flood liability to those that assume the risk of living and working in flood plains, and by engaging in a risk-based economic analysis of levee repair needs in order to maximize scarce financial resources.

Related Reason Foundation Studies

Geoffrey F. Segal and Adrian T. Moore, *Frequently Asked Questions About Water/Wastewater Privatization*, Reason Foundation Policy Brief No. 26, September 2003, http://www.reason.org/pb26.pdf

Adam B. Summers, *Funding the National Park System: Improving Services and Accountability with User Fees*, Reason Foundation Policy Study No. 325, April 2005, http://www.reason.org/ps325.pdf.

Barrett P. Walker, *Preparing for the Storm: Preserving Water Resources with Stormwater Utilities*, Reason Foundation Policy Study No. 275, January 2001, http://www.reason.org/ps275.html.

Further Reading/Resources

California Attorney General's Official Title and Summary of Prop. 1E: http://www.ss.ca.gov/elections/vig_06/general_06/pdf/proposition_1e/entire_prop1e.pdf

California Attorney General's Official Title and Summary of Prop. 84: http://www.ss.ca.gov/elections/vig_06/general_06/pdf/proposition_84/entire_prop84.pdf

California Department of Water Resources "Responding to California's Flood Crisis" January 2005 (http://www.publicaffairs.water.ca.gov/newsreleases/2005/01-10-05flood_warnings.pdf)

California Department of Water Resources and the United States Army Corps of Engineers, "Sacramento and Delta Levee Briefing," February 22, 2006 (http://www.governor.ca.gov/govsite/pdf/press_release_2006/02-22_Presentation_final.pdf)

California Department of Water Resources, *California Water Plan Update 2005*. DWR Bulletin 160-05, December 2005. (http://www.waterplan.water.ca.gov/docs/cwpu2005/vol1/v1complete.pdf)

California Department of Water Resources, *Delta Atlas*, 1995. (http://baydeltaoffice.water.ca.gov/DeltaAtlas)

California Department of Water Resources, Floodplain Management Task Force, "California Floodplain Management Report – Recommendations of the California Floodplain Management Task Force," December 12, 2002. (http://fpmtaskforce.water.ca.gov/)

California Legislative Analyst's Office, "A Primer: The State's Infrastructure and the Use of Bonds," January 2006. (http://www.lao.ca.gov/2006/infrastructure/infrastructure_010306.html)

California Performance Review, "CALFED Bay-Delta Program is Not Functioning Efficiently." (http://cpr.ca.gov/report/cprrpt/issrec/inf/inf08.htm)

University of California Center for Watershed Science, Jeff Mount. "Hell and High Water in the Delta: The Fate of California's Water Supply Hub," February 14, 2006,. UC Berkeley, California Colloquium on Water. (http://www.lib.berkeley.edu/WRCA/ppt/ccow_Mount.ppt)

University of Southern California, Keston Institute for Infrastructure, Ellen Hanak and Kim Rueben, "Funding Innovations for California Infrastructure: Promises and Pitfalls," April 2006. (http://www.usc.edu/schools/sppd/lusk/keston/pdf/cal-infrastructure-promise-pitfall.pdf)

Water Education Foundation, "A Briefing on the Bay-Delta and CALFED," March 2004. (http://www.water-ed.org/calfeddeltabriefing.asp)

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Endnotes

[1] California Legislative Analyst's Office, *A Primer: The State's Infrastructure and the Use of Bonds*, January 2006, p. 1, http://www.lao.ca.gov/2006/infrastructure/infrastructure_010306.pdf.

[2] California Department of Water Resources, "Responding to California's Flood Crisis," January 2005, http://www.publicaffairs.water.ca.gov/newsreleases/2005/01-10-05flood_warnings.pdf.

[3] Water Education Foundation, "A Briefing on the Bay-Delta and CALFED," March 2004.

[4] California Legislative Analyst's Office, *A Primer: The State's Infrastructure and the Use of Bonds*, p. 6.

[5] California State Senator Dick Ackerman press release, "Levees in Dire Need of Repair," April 5, 2006, http://republican.sen.ca.gov/news/33/pressrelease3837.asp.

[6] California Secretary of State's Web site, Proposition 84, Sec. 75026 (a), http://www.caag.state.ca.us/initiatives/pdf/sa2005rf0131.pdf.

[7] Kevin Hunt, Memo to Board of Directors, Municipal Water District of Orange County, "Update on Proposition 84 – Clean Water, Parks and Coastal Protection Bond Act," dated July 5, 2006, pp. 2-3, http://www.mwdoc.com/documents/070506JWS.pdf.

[8] California Legislative Analyst's Office, *A Primer: The State's Infrastructure and the Use of Bonds*, p. 11.

[9] Ibid. This assumes an interest rate of 4.6 percent, the rate earned by the state's most recent general obligation bonds, a 3 percent annual inflation rate, and a level-payment bond amortization schedule.

[10] California Department of Finance Web site, "Budget FAQs," Chart K-4: General Obligation Bonds, July, 2006, http://www.dof.ca.gov/Budget/documents/CHART-K4.pdf (retrieved August 25, 2006).

[11] Yes on Proposition 84 Web site, "Frequently Asked Questions," http://www.yeson84.com/about/faq.php (retrieved August 21, 2006).

[12] California Legislative Analyst's Office, *The 2006-07 Budget: Perspectives and Issues*, February 23, 2006, p. 9, http://www.lao.ca.gov/analysis_2006/2006_pandi/pandi_06.pdf.

[13] For more information, see Barrett P. Walker, *Preparing for the Storm: Preserving Water Resources with Stormwater Utilities*, Reason Foundation Policy Study No. 275, January 2001, http://www.reason.org/ps275.html.

[14] California Department of Water Resources, "Responding to California's Flood Crisis."

[15] For more information on the use of user fees to fund public parks, see Adam B. Summers, *Funding the National Park System: Improving Services and Accountability with User Fees*, Reason Foundation Policy Study No. 325, April 2005, http://www.reason.org/ps325.pdf.

[16] Geoffrey F. Segal and Adrian T. Moore, "Frequently Asked Questions About Water/Wastewater Privatization," Reason Foundation Policy Brief No. 26, September 2003, http://www.reason.org/pb26.pdf.

[17] U.S. Environmental Protection Agency, Environmental Finance Program, *A Guidebook of Financial Tools Section 4B. Public-Private Partnerships and Optimization Case Studies*, 1999. See also U.S. Environmental Protection Agency, Guidance on the Privatization of Federally Funded Wastewater Treatment Works, August 2000.

[18] National Association of Water Companies, NAWC Privatization Study: A Survey of the Use of Public-Private Partnerships in the Drinking Water Utility Sector, (Washington, D.C.: National Association of Water Companies, 1999), pp.41-43.

[19] US EPA, *A Guidebook of Financial Tools Section 4B.*

[20] "Gaps in levee bond raise concerns over flood fixes," Associated Press, July 15, 2006.

[21] Tom McClintock, "McClintock Reviews the November Ballot Propositions," Tom McClintock for Lt. Governor Web page, August 9, 2006, http://www.tommcclintock.net/news.php.

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