# Funding California's Future:
# Options for Leveraging the Proceeds of SB 1024

*prepared for*

Senator Don Perata
President Pro Tem
California State Senate

February 9, 2006

*prepared by* [1]

Richard G. Little, AICP
The Keston Institute for Infrastructure
University of Southern California

## Introduction

California faces an infrastructure deficit of several hundred billion dollars—a shortfall brought about by years of chronic underinvestment. For example, according to figures compiled by the National Association of State Budget Officers, California ranks last among the states in the percentage of its total expenditures devoted to transportation[2]. The demands of the additional 10 million new residents expected by 2025 will place terrific strains on transportation, flood control, water supply and other critical systems that are struggling, and often failing, to meet today's needs. If these systems are not up to the task, both our quality of life and economic well-being will suffer.

For too long, we have been hampered by a failure of imagination in how we conceive, design, and deliver infrastructure projects but now California appears ready to recommit itself to a program of sustained infrastructure investment. The 2006 Transportation and Infrastructure Investment Bond, SB 1024 (Perata), is a long overdue first step both in restoring the state's infrastructure to an acceptable level of performance by providing much needed capacity to reduce existing congestion and accommodate expected growth.

---

[1] This report is the work product of the Keston Institute for Infrastructure, a policy research center of the University of Southern California. No endorsement by the California State Senate or the President Pro Tempore of the findings, opinions, and recommendations contained in this report is either expressed or implied.

[2] 2003 State Expenditure Report. National Association of State Budget Officers. Washington, DC.

The funds proposed in SB 1024 will not erase California's infrastructure deficit. Uncoordinated state policies and many years of budget shortfalls and competing demands for limited funds have created a huge backlog of maintenance needs and capacity constraints. While funds from the proposed infrastructure bond can begin to address the most critical needs, state funds alone cannot get the job done. New sources of funds must be found. Recognizing how important it will be to find other investment partners for California's infrastructure, Senate President Pro Tem Perata has requested the Keston Institute for Infrastructure at the University of Southern California to study this problem) and issue a report that addresses:

- Current best practices in the field of leveraged infrastructure finance and their applicability to California
- Legal or institutional barriers to implementing those practices in California and how those barriers might be overcome
- Options for leveraging various types of projects, likely sources of additional funds, and likely funding partners for each project type (Attachment 1).

The results of that effort are included in the section entitled "Leveraging the Funds from SB 1024". The subsequent sections of the report suggest 19 specific Action Items to improve the financing and delivery of capital projects that the Legislature should consider as SB 1024 is discussed and amended during the current legislative session. But these decisions cannot be made in a vacuum. The key to ensuring the long-term reliability of these critical services will be the active partnership of the public and private sectors at all levels in developing long-range policies and plans supported by innovative and equitable funding strategies. To achieve this, the public sector and business community will need to earn each other's trust, build a shared vision of the future, and jointly develop new approaches for planning, financing, and operating these systems in a manner that ensures reliable service at a realistic and equitable price. The parts are all here, it will be up to all of us to make them work.

## Acknowledgements

This report would not have been possible without the input and review of many individuals whose knowledge of California's infrastructure and its planning and financing was invaluable. The Keston Institute for Infrastructure would like to acknowledge the assistance of the following individuals:

Wally Baker, Los Angeles Economic Development Corporation

Kathleen Brown, Goldman, Sachs, and Company

Robert Curry, California Cartage Co., Inc.

John Doherty, Alameda Corridor Transportation Authority

Norman Emerson, Emerson & Associates

Gerald Flynn, TCI Transportation Services Inc.

Ron Gastelum, Los Angeles Area Chamber of Commerce

David Grannis, The Planning Company

James Hankla, The Port of Long Beach

Gill Hicks, Gill V. Hicks and Associates, Inc.

Collins Kalu, Los Angeles County Metropolitan Transportation Authority

Brian Kelly, Staff of the Senate President Pro Tem

Michael Keston, Larwin Company

Barbara Lloyd, Lehman Brothers

Adrian Moore, Reason Foundation

Mark Pisano, Southern California Association of Governments

Robert Poole, Reason Foundation

Timothy Romer, Goldman, Sachs, and Company

Stephanie Shakofsky, Center for Creative Land Recycling

Richard Steinke, The Port of Long Beach

Peter Taylor, Lehman Brothers

David Yale, Los Angeles County Metropolitan Transportation Authority

However, despite the valuable assistance provided by these individuals, responsibility for the final content of this paper rests solely with the Keston Institute for Infrastructure.

## Leveraging the Funds from SB 1024

Although many of the financial tools that California needs to address its infrastructure needs are already in place, if California is to achieve significant leveraging of the bond proceeds from SB 1024, particularly in transportation, legislative action both to encourage fuller use of existing tools and to authorize the use of others will be required. For example, tax increment financing originated in California in 1952 and has been used widely throughout the state, but refinements to California Government Code § 53395 will be necessary to optimize the use of TIF districts for the development of infill

housing. Similarly, although California has availed itself of many of the recent innovations in transportation finance such as establishing a State Infrastructure Bank and the use of GARVEE bonds[3] these tools have not been utilized broadly enough to have had a significant impact as of yet . Most critically, there are two areas where California significantly lags other states and where legislative action is needed if California is to maximize the leveraging potential of its bond funds—the implementation of Public Private Partnerships[4] (PPP) and more widespread use of Design-Build and other accelerated procurement methods. For example, although California is one of 19 states with some form of authority to enter into PPPs, the legislation that gave Caltrans authority to do so (AB 680) has been repealed and California Government Code § 55956.10 explicitly prohibits PPPs on state projects and limits the term of concession to 35 years, generally considered to be too short to permit the private sector even to recoup its investment. California does authorize some cities and counties and Joint Power Authorities to utilize Design-Build but specifically denies it to Caltrans and other state agencies. Express authority is also lacking for many local and regional agencies that construct and operate much of the infrastructure in the state. Although not all of the other 33 states with Design-Build authority extend it to all agencies and projects, California does lag most states in this area.

Financing the construction and maintenance of the nation's highways in the face of decreasing revenues from traditional sources has received enormous attention in the last ten years. Millions of dollars have been spent on research and demonstration projects to identify new and improved ways of financing transportation infrastructure. From that work, four major trends have emerged

- increased use of tollroads
- the use of Public-Private Partnerships to build, operate, and maintain new and existing transportation assets through long-term concession agreements
- securitization of existing or anticipated revenue streams to amortize bonds
- use of demand management to offset or complement the need for new construction

SB 1024 proposes to raise $10.95 Billion in the six general infrastructure categories shown in Table 1. It is estimated that an additional $82.9 Billion to $94.1 Billion could be leveraged from other local, state, federal, and private sources to complement the funds from SB 1024. Table 2 summarizes leveraging opportunities and

[3] Grant Anticipation Revenue Vehicles, or GARVEE bonds and notes are capital market borrowings repaid by federal transportation funds deposited in the State Highway Account.

[4] Standard and Poor's defines a PPP as any medium- to long-term relationship between the public and private sectors, involving the sharing of risks and rewards of multi-sector skills, expertise, and finance to deliver desired policy outcomes.

potential funding partners for various types of projects. In addition to public funding sources, there is an enormous amount of private capital that is being invested in public infrastructure worldwide and increasingly in the U.S.[5] However, it will only come to California and be available for leverage if it can obtain an equal or greater return on investment that is available for similar projects with similar risk profiles in the global marketplace.

## Action Items to Complement Increased Funding

Regardless of the amount of General Obligation Bonds authorized by SB 1024 and funds leveraged from other sources, an enormous opportunity exists to stretch these funds still further through improved planning, procurement, and project management. In this regard the Legislature should consider the following actions.

**Action Item 1**

*Consider legislation that will facilitate the implementation of financially viable Public Private Partnerships that will maximize the leveraging potential of state funds.*

> Public Private Partnerships (PPPs) have the potential to play a crucial role in financing new highway capacity. Under the appropriate conditions, private investors around the world and in the U.S. have shown a willingness to invest heavily in new transportation infrastructure. However, to be workable, PPPs must allocate risk transparently and equitably between the parties, structure price regulation to provide acceptable returns to the investors, and provide a sufficiently long concession period so that the investment potential can be realized. At the same time, they must provide protection to the public with respect to toll increases, maintenance standards, and environmental protection.[6] Legislation to permit greater use of toll roads in California, routine solicitation of PPPs for new highway and other transportation projects, and limited consideration of unsolicited proposals should be enacted. Using bond funds to underwrite the planning, permitting, preliminary design, and land acquisition for new projects could leverage toll revenues and/or private investment to pay for construction at an estimated factor between 2 to 9 times[7].

---

[5] Eight key international investors have raised almost US $38 Billion among them. At a debt/equity ratio of 4:1, this has made US $189 Billion available for infrastructure projects worldwide.

[6] The Keston Institute for Infrastructure will conduct a policy seminar on protecting the public interest during the formulation of PPPs in March 2006. It will draw on U.S. and international experience with these agreements to highlight their opportunities and challenges.

[7] It is assumed that planning, permitting, preliminary design, and land acquisition could range from 5%-10% of project costs with minimal land acquisition such as HOT lanes up to 25%-35% for construction on new right-of-way.

## Table 1. Leveraging Potential of the Proceeds of the 2006 Transportation and Infrastructure Investment Bond

| Infrastructure Bond Program | Proposed SB 1024 Funding ($ Billions) | Possible Additional Funds Available Through Leverage ($ Billions) |
|---|---|---|
| Highway Transportation | $4.2 | $64.6 - $73.5[8] |
| Levee Repair, Flood Control, and Water Supply Protection | $2.0 | $2.3 - $2.5[9] |
| Improved High-Speed Rail Corridors | $1.0 | $1.0[10] |
| Goods Movement | $2.5 | $8.4[11] |
| Infill Housing | $1.2 | $6.0 - $7.8[12] |
| Brown Field Remediation | $0.150 | $0.6 - $0.9[13] |
| Total | $10.950 | $82.9 – $94.1 |

[8] It is assumed that $1.5 Billion of the funds to be dedicated to the STIP and $1.2 Billion of the repaid Proposition 42 funds (a total of $2.7 Billion) would be dedicated to tolled projects. It was further assumed that bond funding for planning, permitting, preliminary design, and land acquisition could range from 5%-10% of project costs with minimal land acquisition such as HOT lanes up to 25%-35% for construction on new right-of-way with the balance to be provided by a public or private toll agency. It was also assumed that $300 million of new Proposition 42 revenues would be used to amortize an additional $2.0 Billion in transportation revenue bonds. These figures also include Federal funds ($28.2 Billion) from the Safe Accountable Flexible Efficient Transportation Equity Act -A Legacy for Users (SAFTEA-LU), possibly as much as $18 Billion ($3 Billion annually for 6 years) from approved and pending ballot initiatives from Self-Help counties, $2 Billion in Transportation Private Activity Bonds, and $9 Billion from other state transportation funds.

[9] It was assumed that $1 Billion of bond proceeds would be dedicated to flood control. This amount could leverage an additional $0.3 - $0.5 Billion in local contributions and $2 Billion in Federal cost sharing under existing guidelines. With assurances that the Federal share would actually be forthcoming, GANs for this amount could be issued to accelerate the availability of these funds. If a flood control benefit assessment district was created for the Sacramento-San Joachin River Delta and the Central Valley, funds from local sources could increase.

[10] U.S. DOT provides for a 50% cost share for high-speed rail corridor studies and other funding for mitigating at-grade crossings and demonstration projects. It is assumed that the railroads that would benefit from the corridor improvements would share in 50% of the costs.

[11] In the absence of an agreed-upon cost sharing formula or who the participants will be, it was assumed that $2.1 Billion in bond proceeds would be matched at a 4:1 ratio by others.

[12] Published values for the leveraging of public funds in redevelopment districts vary considerably; a conservatively optimistic range for a leverage factor of 5 – 6.5 was assumed.

[13] The U.S. EPA claims to have leveraged the Federal investment in Brownfields remediation by a factor of 6. For this effort, a factor value of 4 to 6 was assumed.

**Table 2. Summary of Leveraging Opportunities and Possible Funding Partners for the 2006 Transportation and Infrastructure Investment Bond (SB 1024)**

| Infrastructure Bond Program | Leveraging Opportunities | Possible Funding Partners |
|---|---|---|
| Highway Transportation | Tolling of new highway capacity<br>Public Private Partnerships under long-term concessions for construction, operations, and maintenance of existing an new revenue-producing assets<br>Securitization of existing or potential tax revenue streams to amortize revenue bonds | Federal, local and regional governments<br>Private investment groups |
| Levee Repair, Flood Control, and Water Supply Protection | Existing Federal Cost sharing arrangements<br>Flood control benefit assessment districts based on the "beneficiary pays" principle<br>Securitization of potential revenue streams to amortize revenue bonds for capital construction | U.S. Army Corps of Engineers<br>Local governments, flood control districts, and individual beneficiaries (agriculture, housing, industry, utilities, railroads, recreation, water supply, etc.) |
| Improved High-Speed Rail Corridors | Cost-sharing agreements based on existing Federal guidelines and new agreements between the state, local and regional bodies, private investment groups and the railroads | U.S. DOT<br>Local governments and regional transportation agencies<br>Private investment groups<br>Railroads |
| Goods Movement | Tolling of new highway capacity<br>Public Private Partnerships for construction, operations, and maintenance of new revenue-producing assets<br>Securitization of potential revenue streams to amortize revenue bonds | Local, regional and Federal governments<br>Merchandisers<br>Port Authorities<br>Private investment groups<br>Transportations entities (railroads, ships, trucks) |
| Infill Housing | Grants and loans for infrastructure development and revitalization projects<br>Use of tax increment financing to sustain revolving load fund and/or securitize development bonds | Community Redevelopment Agencies<br>Local and regional governments<br>Private investment groups |
| Brown Field Remediation | Grants and loans for site assessment and remediation projects | U.S. EPA<br>Local and regional governments<br>Private investment groups |

**Action Item 2**

*Consider legislation that authorizes Caltrans and other state, regional, and local agencies to utilize the Design-Build contracting process for projects involving Public Private Partnerships or whenever the Design-Build would be a more cost-effective use of state, regional, or local agency funds.*

Design-Build is a system of contracting where one entity performs both architecture/engineering and construction under a single contract. It contrasts with the traditional design-bid-build process where the owner commissions an architect or engineer to prepare drawings and specifications under a design services contract, and separately contracts for at-risk construction, by engaging a contractor through competitive bidding or negotiation. It should not be the default contracting method for all projects but when used appropriately, it offers the opportunity for considerable cost and time savings and a better allocation of risk between the owner and Design-Builder. For example, Utah made extensive use of Design-Build to implement major freeway improvements in Salt Lake City in preparation for the 2002 Winter Olympics. These improvements were completed on-time and under budget. Closer to home, use of Design-Build for the addition of an HOV lane on the 405 Freeway in Los Angeles reportedly will save three years over the life of the project. With construction costs increasing at a rate of over 9% annually, just the time savings value of Design-Build can be enormous.

**Action Item 3**

*Allocate funds from SB 1024 based on the ability of projects to leverage additional capital and comply with adopted regional transportation plans.*

Given that SB 1024 will provide only a portion of the funding needed to address transportation needs, priority for funding should be given to projects that have additional funding already committed or demonstrably available. Every opportunity should be taken to combine bond funds with other federal, state, local, and private funds to speed the delivery of critical path projects that comply with previously adopted regional transportation plans so that fully functional elements of regional transportation networks will be delivered. Consideration should be given to the creation of an Allocation Panel to review 1) leveraging amounts and sources; 2) congestion and environmental mitigation and remediation potential, and; 3) congruence of proposed projects with local and regional transportation plans. The role of the Allocation Panel would not be to allocate funds according to geographic area or political boundaries but rather to apply criteria approved by the legislature and electorate and to leverage state funds to the maximum extent possible.

**Action Item 4**

*Give funding priority to transportation projects that are complemented by realistic demand management strategies.*

Although the primary purpose of SB 1024 is to restore long overdue capital funding, building additional new capacity is not the sole solution to the state's congestion problems. There are a wide range of complementary approaches such as better integration of employment and housing opportunities, strategic investment in transit, value pricing of toll lanes, market-priced parking, staggered work and school hours, remote work locations and telecommuting among others that can reduce peak hour trips. No one strategy for demand management will eliminate peak hour congestion. However, a number of incremental management steps, coupled with strategic investment in new capacity, could collectively reduce some additional construction needs, probably by billions of dollars.

**Action Item 5**

*Improve the regulatory review process in regard to CEQA compliance and CEQA/NEPA coordination for projects included in SB 1024.*

On-going efforts to improve CEQA could be leveraged to achieve efficiencies in the CEQA review process without compromising environmental protection. This could be accomplished by addressing cumulative and system-level impacts during review of regional plans. This could expedite critical path projects by allowing use of the EIR work done in support of regional plans and programs for individual projects and also would confine legal challenges involving cumulative and system-level impacts to the plan-level environmental review. A project that conformed to an approved plan-level EIR could be approved without additional review. This would permit streamlined site and ROW acquisition, speed construction and eliminate the cost of a duplicative environmental review. Accelerated and priority CEQA processing for projects funded from SB 1024 also should be considered.

**Action Item 6**

*Consider establishing a dedicated funding stream for maintenance and repair based on a percentage of net asset value of transportation and other facilities as an annual State General Fund budget line item and protect such funding from "emergency" reallocation.*

We have learned dramatically from the levee failures in New Orleans that infrastructure requires periodic inputs in the form of capital, materials,

labor and other resources to sustain it at acceptable levels of performance. There is a large body of research that demonstrates that maintenance funds, once reallocated for other purposes are rarely, if ever, repaid. This leads to a spiraling backlog of unmet maintenance needs that leads to system breakdown and failure. Committing significant additional funding to new and revitalized infrastructure without a committed source of funds to maintain it is not a wise investment strategy.

**Action Item 7**

*Consider establishing a multi-year state-wide planning process that would build on local and regional infrastructure planning activities.*

Revenue raised locally through a ½¢ sales tax by the so-called "Self-Help" counties amounts to about $2.3 Billion annually and local referenda proposed for November 2006 could generate an additional $1 Billion per year from the same source. The Safe Accountable Flexible Efficient Transportation Equity Act–A Legacy for Users (SAFTEA-LU) will provide an additional $4.7 Billion annually over its six-year life. Most of this ±$8 Billion will be spent pursuant to local and regional priorities as reflected by adopted transportation plans. A portion of the $2 Billion in SB 1024 should be used to ensure completion of regional transportation networks with the goal of eliminating critical bottlenecks and other capacity deficits. To ensure that these activities are appropriately coordinated both physically and fiscally with local and regional agencies, consideration should be given to establishing an office within the state government responsible for the multi-year infrastructure planning and capital improvement programming envisioned by AB 857 when it was authorized in 2002.

## User Fees

**Action Item 8**

*Base user fees for infrastructure and services on the principle that the "beneficiary pays." Fees should not be arbitrarily assessed but must demonstrate a clear connection between the amount of the fee, who pays it, and the value of the services received.*

The goods movement industry in Southern California is an excellent example of this. The region and state benefit enormously from the jobs and economic activity created by the import and transshipment of goods through the Ports of Long Beach and Los Angeles but the region is burdened by high volumes of heavy truck traffic that clog the freeways

and the trains that block traffic at numerous at-grade intersections. In addition, people living in close proximity to the ports must deal continuously with high levels of air pollution, noise, and overall loss of amenity. A program of infrastructure improvements can be developed that would increase economic activity and job creation, speed goods movement, and reduce congestion and adverse environmental effects. Should the costs be borne by the state to nurture the economy; by the ships that use the ports and pollute the water and air; by the truckers who use the roads and contribute to congestion, excessive wear, and air pollution; by railroads who haul some of the freight and block traffic at at-grade crossings; or by the retail chains who use the ports and other infrastructure to import goods that pass through the region on their way to other destinations? The answer is that everyone should pay something but assigning fees arbitrarily can have serious unintended consequences. User fees and cost-sharing arrangements cannot be developed in a vacuum but must be the result of an inclusionary process that includes all stakeholders. An outcome of such a process would be a clearly articulated statement that funding for goods movement should give equal weight to environmental mitigation and remediation as to congestion relief and economic growth. This is the key to creating a reliable and sustainable funding stream that could be used to amortize additional revenue bonds to fund the environmental and transportation improvements necessary to achieve all the other positive outcomes of a vibrant and healthy goods movement industry.

## Transportation

**Action Item 9**

*Explore ways to monetize existing transportation infrastructure that has an established revenue stream.*

In January 2005 the City of Chicago received $1.8 Billion from the Cintra-Macquarie investment group for the concession to operate the Chicago Skyway toll road for a period of 99 years. The proceeds from the sale of the concession were used by the City to retire the Skyway debt, pay off and pay down existing City debt, establish a reserve fund and an annuity for budget relief, and fund a number of one-time neighborhood improvement projects. Applying financial parameters from the Skyway sale to the Golden Gate Bridge yields a potential asset value of over $2

Billion, more than three years worth of Proposition 42 revenues dedicated to the state highway system.

**Action Item 10**

*Consider using a portion of dedicated Proposition 42 revenues to amortize new revenue bonds.*

Assuming that $1.4 billion will be available annually from Proposition 42 after 2008, an additional $15 Billion in fee-supported revenue bonds could be sold. Dedicating only $300 million of annual Proposition 42 revenue to debt service could amortize an additional $2 billion in new 20-year revenue bonds at a 5% interest rate. However, to accomplish this, the legislature must initiate the constitutional amendment process to eliminate permanently the "emergency" suspension clauses originally included in the measure to ensure that Proposition 42 funds were only available for transportation purposes so that the annual revenue stream could be securitized to support the debt service for a much larger bond issue.

**Action Item 11**

*Consider greater use of tolls to support the transportation projects included in SB 1024.*

Tolls work quite well as a user fee because people pay directly for what they use; usually a per-mile fee based on vehicle class. Properly adjusted, tolls can cover capital construction costs as well as operations and maintenance. If traffic projections and user willingness-to-pay can be demonstrated, toll revenue bonds become attractive to investors and permit the capital financing of very large (multi-billion dollar) projects. Financing such large projects is very difficult to do using traditional fuel-tax funding sources because each year's available capital investment dollars must be divided up throughout the state which makes it difficult to amass the funds to do very large projects all at once. Tolls in some form are also necessary to support viable Public Private Partnerships. This principle is demonstrated by the Trans-Texas Corridor, a $180 Billion multi-decade proposal to construct new roadways to carry cars, trucks, and trains; pipelines to transport oil and water, and electricity and broadband connectivity between Texas' major cities. The project will be funded primarily by user fees within Public Private Partnerships. Idaho, Indiana, New York, Oregon, Virginia, and Washington currently are considering similar, although less ambitious, programs.

**Action Item 12**

*Take maximum advantage of the $15 Billion in Private Activity Bonds authorized by SAFETEA-LU.*

The Safe Accountable Flexible Efficient Transportation Equity Act-A Legacy for Users (SAFTEA-LU) authorizes up to $15 Billion in tax-exempt bonds to finance highways and surface freight intermodal projects developed through PPPs. These funds will be available nationally and could provide additional leverage for the bond funds from SB 1024. Private Activity Bonds would permit greater private sector involvement in transportation projects and result in considerable interest savings. For example, tax-exempt Private Activity Bonds carry an interest rate about one-percent less than taxable Revenue Bonds. This difference equates to an interest savings of $20.5 million over the life of a 20-year, $100,000,000 bond.

**Action Item 13**

*Consider implementing pilot projects to evaluate the feasibility of other methods of collecting mileage-based user fees.*

Almost since the advent of the automobile, highways and roads at the state level have been supported by federal and state excise taxes on motor fuels (the "gas tax"). The motor fuels tax initially worked quite well as a user fee because most vehicles operated at about the same level of efficiency so fuel usage was generally proportional to miles traveled, and tax levies were adjusted periodically so that revenue collection remained adequate to support construction and maintenance of the highway system. Much has changed in the past 25 years, however. Vehicle fuel efficiency now varies so widely[14] that highway usage (miles traveled) has little correlation with fuel consumption. In addition, heavy vehicles which cause the most roadway wear pay the same per-gallon taxes as lighter, less damaging vehicles. Finally, motor fuel taxes are not indexed to inflation so that the revenue generated from this source is no longer adequate to support highway construction and maintenance operations. Because of the declining dependability of the motor fuels tax as an adequate source of transportation funds, other methods of collecting mileage-based user fees are also being considered. For example, a pilot project in Oregon seeks to assign road user fees based on actual miles traveled and not fuel consumption. This project is in its early stages and

[14] EPA's highway mileage ratings for 2006 model vehicles vary from just over 10 mpg to almost 60 mpg.

utilizes vehicle-based transponders and highway sensors to determine the mileage actually driven on state roads. This information is then transmitted electronically to the pump at the filling station which calculates the actual fee. Although this method (and others being tested in other states) shows promise in potentially replacing or supplementing motor fuel taxes, it is not yet ready for widespread operational deployment and requires additional monitoring and evaluation.

## Levee Repair, Flood Control, and Water Supply Protection

**Action Item 14**

*The state should seek immediate Federal financial participation in emergency levee repair and timely appropriation of funds to undertake the other priority projects and programs identified by the U.S. Army Corps of Engineers to protect California from catastrophic flooding.*

There is widespread recognition of the need to develop a comprehensive strategy for the long-term future of the Sacramento/San Joachin River delta. However, action on the most at-risk portions of the levee system cannot await the completion of the necessary studies and should be undertaken immediately with bond funds. The state should vigorously pursue the 65% federal share for this work and evaluate the possibility of issuing GAN's against the eventual receipt of full Federal cost sharing. The proposed $1 Billion in bonds dedicated to flood control could leverage an additional $0.3 - $0.5 Billion in local contributions and $2 Billion in Federal cost sharing. If a flood control benefit assessment district was created for the Sacramento-San Joachin River Delta and the Central Valley, funds from local sources could increase. Projects to be considered for funding support from SB 1024 are shown in Appendix A.

**Action Item 15**

*The Legislature should authorize the establishment of flood control assessment districts for the Central Valley and the Sacramento-San Joachin River Delta.*

The Sacramento–San Joaquin River Delta serves many purposes; agriculture, water supply conduit, flood control, shipping, transportation as well as recreational uses such as fishing, hunting, and boating. Use of general tax revenues to support programs with less than state-wide benefit raises equity issues and violates the "beneficiary pays" model for user fees. Current levee and land use practices may not be sustainable in the face of seismic activity, climate change, and economic fluctuations. State involvement in local levees should be prioritized based on full

consideration of cost-effective and sustainable alternatives to the local levee system. Flood control assessment districts would allocate the costs of protection among the multiple beneficiaries in proportion to the benefits received and provide a stable, long-term funding source for annual maintenance and repair and a funding stream to amortize flood control revenue bonds for capital construction. To the extent that delta improvements will benefit water consumers throughout the state, that portion of benefits could be recovered by adding the cost to existing water usage charges on a volumetric basis.

## High-Speed Rail

**Action Item 16**

*Assign funding priority to those high-speed rail segments that can provide an immediate and measurable benefit in the form of congestion relief and pollution reduction, comprise part of the future regional and statewide network, and which can leverage significant private matching funds for their construction and operation.*

Constructing a statewide high-speed rail network will be a long and costly process. However, there are already identified segments that offer the potential to provide immediate benefit while ultimately fitting into the larger network. For example, Los Angeles International Airport (LAX) is essentially constrained to current service levels because of congestion and neighborhood impacts such as air pollution and noise. Future air passenger traffic in the region will increasingly be shifted from LAX to airports in Ontario and Palmdale and high-speed rail links to them would greatly improve multi-modal access and facilitate redistribution of travel demand. There are similar beneficial links in the Bay Area as well. If private capital were forthcoming to leverage the funds from SB 1024, work could begin on selected high-speed rail segments on a priority basis.

## Goods Movement

**Action Item 17**

*Authorize an appropriate existing organization or new Joint Powers Authority to coordinate, plan, fund, and construct the necessary infrastructure improvements to move goods quickly, safely, and cheaply from the Ports of Los Angeles and Long Beach to their final destination within California or to an appropriate trans-shipment point. The infrastructure plan for efficient and rapid goods movement must have as a co-objective the reduction of air, water, noise, and*

*visual pollution from existing sources and ensuring that new sources of pollution are not created. Funds for new infrastructure should be matched with funds for environmental mitigation and remediation until existing and anticipated adverse environmental consequences of port operations and goods movement have been satisfactorily addressed.*

Developing and implementing an infrastructure plan for environmental mitigation and goods movement that is acceptable to the multiple stakeholders involved in this process will require time, patience, and resources. The solution, whether implemented by a public agency, PPP, or some combination of institutions, will be expensive—SCAG estimates the cost of all necessary highway, rail, and environmental improvement projects in excess of $35 Billion. Other estimates are of similar magnitude. What will be done by whom and how it will be paid for are open and active questions. Truck-only toll roads are one proposal. Fees for each cargo container entering the port are another. Neither is a complete nor fully equitable solution. Existing environmental and community impacts must be mitigated and future impacts minimized or avoided. A single entity, empowered to build consensus and implement solutions, could be successful where multiple governments, agencies, and regional authorities have not.

**Action Item 18**

*The funds provided by SB 1024 to the Carl Moyer Memorial Air Quality Standards Attainment Trust Fund should be allocated solely to address the retirement of older, higher polluting diesel trucks that service the ports. Consideration should be given to operating the fund as a low- or no-interest revolving loan fund (as opposed to a grant program) and making participation in the program a prerequisite for working at the ports.*

Port operations and transfer of cargo containers by truck and rail produce large volumes of air pollution; collectively, ocean-going marine vessels, cargo handling equipment, trucks and trains emit a quarter of diesel particulate emissions in the South Coast Air Basin. Compliance with current emissions standards could be made a requirement to haul from the Ports of Los Angeles and Long Beach as a means of encouraging participation in the program and removing this source of pollution from the airshed.

## Infill Housing

**Action Item 19**

*Priority for award of funds from SB 1024 for infill housing should be given to communities that have adopted general plans to achieve a balance of infill development and transit-oriented land uses and that can provide matching public and private matching funds.*

> Integrating land use changes with strategic investment decisions in new infrastructure is a strategy that can pay multiple dividends in reduced travel times and congestion, more compact communities with a better balance of housing and employment opportunities in close proximity for those who desire them, and reduced cost for building new infrastructure capacity. For example, the Compass 2% Strategy developed by SCAG has identified significant benefits to the transportation network if infill development occurs along existing commercial corridors, Main Streets, and commercial and employment centers where transit and local street access are, or could be, available—in essence, implementing change on only 2% of the available developable land base would reap much larger benefits. Implementing this strategy will require coordination and cooperation between local and regional transportation and planning organizations and other agencies. Communities which seek to develop in this manner and which can demonstrate regional participation and the availability of viable matching funds should receive priority consideration for grants and revolving loans from the proceeds of SB 1024.

## Summary

California faces great challenges going forward and we cannot afford to be complacent about the future. We have not provided the capacity to accommodate recent growth and have not made critical investment decisions for the future. We also know that infrastructure that is not adequately maintained will likely fail; possibly with catastrophic consequences. SB 1024 can play a pivotal role in turning California onto a wiser and more prudent investment path. This paper has demonstrated that the funds from SB 1024 can be leveraged many times through strategic partnering with the Federal government, local and regional bodies, and the private sector and a more innovative approach to how infrastructure is financed in California. It also proposes a number of complementary actions that the Legislature should consider to improve project delivery and the allocation of state funds. But it is not just a matter of providing more money or building more roads, although obviously these are both part of the

solution. Maintaining an acceptable level of mobility and ready access to safe reliable water supplies are perhaps California's greatest infrastructure challenges for the future. Addressing them will be as much about managing expectations as resources. For example, water conservation measures are highly effective and could greatly extend available supplies without the need to construct costly and environmentally problematic engineering works. However, the political process at all levels needs to be forthright and help Californians recognize that real solutions entail some sacrifice and cooperation on everyone's part. Whether this is paying directly for highway access through user fees, higher costs for water or goods, or different choices in housing and lifestyle, if everyone commits to give a little, we can all gain a lot. California needs to explore every option to ensure that infrastructure does not constrain California's future quality of life and economic vitality.

# Appendix A

| **Priority Projects and Programs Identified by the U.S. Army Corps Of Engineers to Protect California from Catastrophic Flooding** | |
|---|---|
| South Sacramento Streams | Would initiate second phase of construction that includes 13 miles of levee improvements to provide the City of Sacramento with 100-year flood protection |
| Sacramento River Bank Protection | Would repair erosion sites in the Pocket area of Sacramento |
| American River, Common Features | Would stabilize and raise levees and initiate installation of relief wells at Pioneer Reservoir |
| American River Folsom Modifications and Folsom Dam Raise | Will raise the Dam seven feet, decreasing the area that lacks 100-year flood protection. 400,000 residents would be protected by these improvements. Sacramento currently has about 1 chance in 90 of flooding in any given year. Raising Folsom Dam, along with work under way, will reduce that risk to 1 chance in 213 |
| $90 Million CalFed Levees | Implement levee stability reconstruction projects throughout the Delta, based on a CALFED study identifying the areas with the greatest need |
| Delta Risk Management Strategy | Complete a 3-year study to recommend a long-term solution for stabilizing the Delta |
| Levee Systems Evaluation for the Sacramento Valley | Many of these Federal levees will be "decertified" by FEMA for mapping purposes if they are not restored by the Corps within the next two years |
| Natomas Reimbursement | Will provide authorized reimbursement to the Sacramento Area Flood Control Agency for construction at the Natomas Basin. These funds will be applied to ongoing flood control projects |
| Mid-Valley Area Levee Reconstruction Project | Will reconstruct 18 miles of deficient levees throughout the Sacramento Valley. Floods in 1995 and 1997 caused considerable seepage and boils. |
| Yuba River Basin Project | The Yuba River Basin Project will ultimately strengthen nearly 40 miles of levees along the Yuba, Bear and Feather rivers. The area has experienced 7 major floods in the last 50 years, including in 1997. These projects will protect over 75,000 people in five communities. |
| Lower Cache Creek, Woodland Project | Continue construction of a project to ensure that the Yolo Bypass, which carries Sacramento River flood water, does not become obstructed by sediment. |
| Middle Creek Flood Damage Reduction and Ecosystem Restoration Project | Will reconnect the floodplain of Middle Creek to Clear Lake to reduce potential flood damage. |

# Attachment 1

SACRAMENTO OFFICE
STATE CAPITOL, ROOM 205
SACRAMENTO, CA 95814
TEL (916) 445-6577
FAX (916) 327-1997

DISTRICT OFFICE
1515 CLAY STREET, SUITE 2202
OAKLAND, CA 94612
TEL (510) 286-1333
FAX (510) 286-3885

California State Senate

SENATOR DON PERATA
PRESIDENT PRO TEMPORE

COMMITTEES:
RULES
CHAIRMAN

December 9, 2005

Mr. Richard G. Little
Director
The Keston Institute for Infrastructure
University of Southern California
331D Lewis Hall
Los Angeles, CA 90089

Dear Mr. Little:

First, I write to thank you for your participation in discussions and forums surrounding SB 1024 (Perata), legislation I have authored to invest $10.3 billion of state bond revenues for capital improvements in the state's system of levees, highways and roads, transit systems, infill housing developments, and trade corridors.

Second, I write to explore with you ways the Keston Institute could help shape SB 1024 to maximize the leveragability of state funds dedicated to infrastructure. As we've discussed, a $10.3 billion investment of state funds into our vital infrastructure is particularly valuable if those funds can be "leveraged" or matched by funding partners in the federal government, local government, and the private sector. I am convinced that leveraging bond revenues to the greatest extent possible could mean that a $10 billion investment of state funds results in four or five times that amount in actual project construction. I'm hopeful the Keston Institute could help us develop this concept by producing a study or report that does all of the following:

1. Identifies and summarizes the best practices in the field of leveraged infrastructure finance and its applicability to California.

2. Describes the legal or institutional barriers to implementing those practices in California and how those barriers might be overcome.

3. Describes options for leveraging various types of projects, identifies the likely sources of additional funds and likely funding partners best suited for each project type.

December 9, 2005
Mr. Richard G. Little
Page 2

Given the legislative schedule and the pace with which SB 1024 may move through the process, I would hope such a report could be available in relatively short order, certainly no later than February 10, 2006.

Again, I thank you for your participation in our discussions of SB 1024 and for helping me with my effort to rebuild California. Thank you, also, for your consideration of this request of the Keston Institute.

Should you have any questions or wish to discuss this matter further, please contact Brian Kelly, of my staff, at (916)651-4170.

Sincerely,

**DON PERATA**
President pro Tempore

DP:bpk

## About the Keston Institute for Infrastructure

*The Keston Institute for Infrastructure seeks to actively address the economic, policy, financial, demographic, and other dimensions of public infrastructure development in California. Jointly housed within the School of Policy, Planning, and Development and the Marshall School of Business at the University of Southern California, the Institute undertakes research, outreach, and education activities to further understanding and awareness of infrastructure challenges facing the state and country. A central goal of the Keston Institute is to assist with policy prescriptions for public infrastructure development. Specifically, the Institute compiles, evaluates, and disseminates data and research pertaining to California infrastructure trends, mechanisms and implications of investment spending, linkages between infrastructure investment and state and local economic activity, and related infrastructure issues. Institute analyses and forums are intended to aid decision-makers in relevant policy formation, regulation, and legislation. The Institute focuses on topics of transportation, water, power, and related infrastructure services. Central to the Institute's purpose is the identification, research, and dissemination of the most imaginative strategies for the range of infrastructure challenges facing contemporary California as we enter into the 21st century.*

Richard G. Little, AICP
Director
The Keston Institute for Infrastructure
University of Southern California
(213) 740-4120
rglittle@usc.edu