

DEPARTMENT OF TRANSPORTATION

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: September 24-25, 2003

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Information Item

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Ref: **ASSUMPTIONS FOR 2004 FUND ESTIMATE**

Biennially, the California Department of Transportation (Department) at the direction of the California Transportation Commission (Commission) develops the State Transportation Improvement Program (STIP) Fund Estimate (FE). The 2004 FE includes five-year estimates for the State Highway Account (SHA), the Public Transportation Account (PTA), the Aeronautics Account, the Transportation Investment Fund (TIF), and the Transportation Deferred Investment Fund (TDIF). The first step in this important process is the development of the underlying assumptions to be used in projecting the various categories of revenues and expenditures for each account. Attached are the most critical assumptions for consideration at the September 24-25, 2003 Commission meeting.

The purpose of the FE is to provide both an estimate of all Federal and State funds expected to be available for programming in the subsequent STIP, and a plan to manage these funds over the subsequent five years. The 2004 FE period covers the years 2004-05 through 2008-09, with the 2003-04 year included as the base year.

Attached are brief descriptions and summary assumption tables for the SHA, PTA, the Aeronautics Account, TIF, and TDIF. These sheets present the most important assumptions affecting each of these Funds.

A more detailed discussion of the FE Assumptions will be available for your review at least one week before the September meeting. The detail will also be distributed to the regional transportation planning agencies.

Government Code 14524(d) specifies that the Commission determine the method by which the estimate is determined, in consultation with the Department, transportation planning agencies, and county transportation commissions. Direction regarding the attached assumptions is a key input to determining the FE.

Attachment(s)

2004 STIP FUND ESTIMATE
Assumptions for Guiding the Preparation of the
2004 STIP Fund Estimate

| FUND/ACCOUNT | Pages |
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**2004 STIP FUND ESTIMATE
State Highway Account (SHA)
Assumptions**

The SHA is the main funding source for the State's highway transportation program. The three major sources of funds are fuel excise taxes transferred from the Highway Users Tax Account, commercial vehicle weight fees and reimbursements from the Federal government under the Transportation Equity Act.

| Fund Estimate Issue | Comments |
|---------------------------------|---|
| Revenue and Resources | |
| Beginning Cash Balance | Starting point of the fund estimate will be the adjusted cash balance as of June 30, 2003, per Accounting's reconciliation with the State Controller's Office (SCO) end of year cash balance. |
| Prudent Cash Balance | An assumption will be proposed to include a level of operational cash sufficient to meet low revenue periods during the fiscal year and to meet intra-month cash expenditures. |
| Commercial Vehicle Weight Fees | The forecast will be based upon existing statute, using a linear trend of revenues. |
| Highway User Tax Account (HUTA) | The forecast will be based upon existing statute, using a linear trend of revenues. |
| Interest Income | Interest income will be based upon current interest rate for the Surplus Money Investment Fund (SMIF). |

| | |
|-------------------------|--|
| Federal Reauthorization | Congress has not yet passed the federal fiscal 2004 budget. The current assumption will use the President's proposed reauthorization, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA), as the basis for estimating Obligational Authority (OA). Should Congress pass and the President sign a reauthorization before this estimate is final, the enacted level will be included in the fund estimate. |
|-------------------------|--|

| Transfers | Comments |
|---|--|
| Payback of Local Assistance OA borrowed prior to 2003-04 | It is proposed to delay consideration of this issue until the 2006 Fund Estimate. The Department will pay back any OA borrowed in 2003-04 by the end of the current year. |
| Loan Payback from TCRF | Recent budget actions cloud the repayment schedule for these funds. AB 1751 provides \$100 million payback in 2003-04, and the current assumption for the remainder of the loan, \$477 million, is that it will be repaid in the 2005-06 year per AB 438. |
| Seismic Retrofit funding needs from the State and Federal Funds | Phase 2 already programmed. It is assumed that the Toll Bridge Seismic Retrofit funding contingency identified in AB 1171 will be used during the FE period. Additionally, transfers scheduled in 2001-02 and 2002-03 will now be made in 2005-06 and 2006-07 per AB 1171. |

| Expenditures | Comments |
|---|--|
| State Operations | Use enacted Budget for 2003-04 base year. |
| Escalation of State Operations Expenditures | Assume an escalation rate of 2 percent, based on the latest deflator published by DOF, to cover the increased costs of departmental operations beginning in 2005-06. |
| Contingency for Budget Change Proposals (BCP) | A set aside of \$50 million a year for the first two years of the Fund Estimate is proposed. |

| | |
|--|---|
| Advance Construction (AC) | An assumption is proposed that the level of AC be reduced by applying \$200 million of new federal funds per year to the balance. |
| Local Assistance | Assume Local Assistance project delivery is 100 percent over the entire FE period. |
| Display of Existing Commitments | All previously programmed projects will be displayed as an obligation in the 2004 Fund Estimate. |
| SHOPP and minor program levels | These levels are based on the four-year plan approved in 2000 SHOPP, and the ten-year plan accepted in 2000 SHOPP. |
| Escalation of SHOPP and STIP expenditures. | Assume the California Highway Construction Cost Index (CHCCI) of 3.0 percent. |
| Advance Project Development Enhancement (APDE) | The estimate will assume no dollars available for APDE. |
| Converting cash to allocation capacity | Use a three-year, 20%-50%-30% model, as in past Fund Estimates. |

**2004 STIP FUND ESTIMATE
Public Transportation Account (PTA)
Assumptions**

The PTA is a trust fund established for transportation planning and mass transportation purposes. Revenue from State sales tax on gasoline and diesel fuel is distributed by formula to the State's General Fund, local agencies and to the PTA.

| Fund Estimate Issue – Resources | Comments |
|---|--|
| Beginning Cash Balance | Starting point of the fund estimate will be the estimated available cash balance as of June 30, 2003, developed on an accrued basis using financial statements provided by Accounting. |
| Prudent Cash Balance | Assume a level of operational cash sufficient to meet departmental intra-quarter cash expenditures. |
| Gasoline sales tax revenue | Based upon existing statute, using a historical trend of revenues. |
| Diesel fuel sales tax revenue | Based upon existing statute, using a historical trend of revenues. |
| Spillover (excess fuel sales tax revenue) | Assume no spillover in the FE. |
| Interest Income | Use current interest rate for the Surplus Money Investment Fund (SMIF). |
| Transfers | Comments |
| Transfer from TIF | Assume that transfers will begin in 2004-05 since that is current law. |

| Expenditures | Comments |
|--|---|
| Display of Existing Commitments | All previously programmed projects will be displayed as an obligation in the 2004 Fund Estimate. |
| State Operations | Use enacted Budget for 2003-04 base year. |
| Escalation of State Operations Expenditures | Assume an escalation rate of 2 percent, based on the latest deflator published by DOF, to cover the increased costs of departmental operations beginning in 2005-06. |
| Contingency for Budget Change Proposals (BCP) | No contingency for BCPs is assumed in the PTA FE. |
| Intercity and bus and rail operations | The base reflects the assumption that increased costs will be offset by higher revenue from ridership gains and fare increases. Additional services on existing routes and new routes will be based on the State Rail Plan to be presented to the Commission in October 2003. Funding for intercity rail equipment reflect program estimates for the heavy overhaul equipment in each year. |
| Advance Project Development Enhancement (APDE) | Assume no dollars available for APDE. |

2004 STIP FUND ESTIMATE
Transportation Investment Fund (TIF)
Assumptions

The intention of the TIF is to provide transportation funding as a result of the passage of the Traffic Congestion Relief Act of 2000, Chapter 91, Statutes of 2000 (AB 2928) and Chapter 656, Statutes of 2000 (SB 1662), and revised through the Transportation Refinancing Plan, Chapter 113, Statutes of 2001 (AB 438). The principal source of revenue for the TIF is state sales tax on gasoline. The TIF was intended to commit resources to designated transportation projects that relieve traffic congestion, to the STIP, to the repair and maintenance of local streets and roads, and to the PTA. Although originally expected to begin 2001-02, no TIF funding for the STIP has materialized. TIF funding of STIP projects is now expected to begin in 2004-05.

| Fund Estimate Issue - Resources | Comments |
|--|---|
| TIF Revenue | Assume no diversion of funds in 2004-05 and beyond. |

| Transfers | Comments |
|--|--|
| Apportionments for Local Streets and Roads | As required by existing statute, these will not occur in 2006-07 and 2007-08. In these years, STIP funding will increase in order to repay the SHA for the funding of these apportionments in 2001-02 and 2002-03. |

2004 STIP FUND ESTIMATE

Aeronautics Account

Assumptions

The Aeronautics account receives revenue from fuel for use in propelling aircraft. Funding from the account provides for grants to qualifying airports, acquisition and development, and the State match for airport improvements funded by Federal monies given directly to local agencies. The fund balance for this fund is used for programming by the California Transportation Commission (Commission), and as a reserve for economic uncertainties.

| Fund Estimate Issue - Resources | Comments |
|---|---|
| Beginning Cash Balance | Starting point of the fund estimate will be the estimated available cash balance as of June 30, 2003, developed on an accrued basis using financial statements provided by Accounting. |
| Aviation and jet fuel excise tax revenues | Revenues reflect the average annual growth of past transfers. |
| Flight 100 | The President's reauthorization proposal puts forward the same level of funding for the federal program, with the share for small airports increasing by 3 percent. The FE assumes the President's proposal, and no significant changes to existing programs. |
| Transfers | Comments |
| Transfer to PTA | Transfer to the PTA per Public Utilities Code, Section 21682.5 is \$30,000 per fiscal year. |
| Expenditures | Comments |
| State Operations | Use enacted Budget for 2003-04 base year. |
| Escalation of State Operations Expenditures | Assume an escalation rate of 2 percent, based on the latest deflator published by DOF, to cover the increased costs of departmental operations beginning in 2005-06. |
| STIP Expenditures | These are based on the Aeronautic Program adopted in 2002. |

2004 STIP FUND ESTIMATE
Transportation Deferred Investment Fund (TDIF)
Assumptions

The Transportation Deferred Investment Fund was established by AB 1751 (Chapter 224, Statutes of 2003). The Legislature created the TDIF to facilitate the repayment of funds from the General Fund to the TDIF that is equivalent to the amount not transferred to the TIF in 2003-04.

| Fund Estimate Issue - Resources | Comments |
|--|--|
| Repayment of General Fund loan | Assume loan repayment will occur in 2008-09, the last possible year for the repayment per AB 1750 and AB 1751. |

2004 FUND ESTIMATE SHOPP LEVELS

Issue: What level of future programming capacity should be included in the 2004 Fund Estimate (FE) for the State Highway Operation and Protection Program (SHOPP)?

At the California Transportation Commission's (Commission) May 2002 meeting, the Department of Transportation (Department) presented the 2002 Ten-Year State Highway Operation and Protection Plan (Plan). The Plan identified a funding level of \$22.3 billion for the SHOPP, but it was different from previous Plans in that it did not make a funding recommendation. Instead, the Plan was used as background for a series of six workshops with the Commission to discuss each of the categories of work identified in the Plan, goals for improvement and estimated costs. The Department indicated that a recommendation on the level of SHOPP funding would be presented to the Commission in 2003, prior to development of the 2004 Fund Estimate.

The SHOPP is for major capital transportation improvements that are necessary to preserve and protect the State Highway System (SHS). The funding for the SHOPP is critical and it impacts more than just the timing for delivery of projects. Reduced or delayed funding means a higher level of highway deterioration, which impacts the movement of people and goods. The Executive Summary in the 2002 Plan emphasized the importance of the SHS and SHOPP investment. The summary is even more relevant today when considering the State's financial situation and competing interests for funds. The SHS is one of California's most valuable resources. It is the foundation on which the vitality of California's economy is built. It provides a linkage connecting people and goods to the urban centers, urbanizing areas and major gateways. Public investment in the SHS is estimated at over \$300 billion. The system requires continuous monitoring and upkeep to function as originally intended and as it is currently being used. Current needs are statewide. Much of the SHS was planned, designed and built in the 1950's, 1960's and 1970's. Some of the system hasn't been rehabilitated since it was originally constructed. Not only have these facilities gone beyond their design life, they have also been subjected to traffic volumes significantly greater than originally projected. Annual vehicle miles traveled per year on the system increased by 17 percent (i.e. 23 billion vehicle miles per year) since 1988. Current projections are that the demand will increase even more, growing by an additional 55 percent between 2000 and 2020. The combination of age and increased demand has resulted in faster rates of pavement deterioration, new accident concentration locations and increased hours of traffic congestion. Safety improvements continue to be the highest priority, but currently about one of every five lane-miles of highway needs rehabilitation or major reconstruction. More than half of the bridges on the system are over 30 years old and need to be rehabilitated or replaced. Much of the vegetation along the highways has aged, is dying and needs to be replaced. Existing safety roadside rests need major rehabilitation and new rest areas are needed. System improvements are needed to maximize the efficiency of existing facilities and reduce congestion, which could save an estimated \$13 million per day and reduce up to 530 tons of air pollutants every day. The public's investment in the SHS must be protected and the SHS maintained in order to keep people and goods moving safely throughout the state, and to keep the economy strong and growing.

The six workshops were conducted with the Commission starting at the October 2002 meeting with a discussion on roadway preservation, followed by transportation facilities, bridge preservation, safety, roadside preservation and mobility. The workshops discussed the Plan, SHS needs, funding and

provided an opportunity for questions from the Commissioners. The Plan identified the following goals, actions and funding levels:

Safety: The goal in this category is to improve motorist safety by reducing fatal and injury collisions by 12.5 percent during the 10-year life of the Plan. This goal will result in about 201 less fatalities and 11,000 less injuries per year when compared to the number in 2000. Projects in this category include:

- Improvements at high collision concentration locations that have a calculated safety index of at least 200 and installation of new median barriers to prevent cross median accidents. The estimate of the new accident concentration improvement locations is based on past trends, but as vehicle volumes increase, and with new developments and changing traffic patterns, the number of project locations is expected to increase.
- Enhancements to reduce the number and severity of run-off-the-road accidents. These accidents account for 34 percent of the fatal accidents on the SHS, and this proactive strategy will widen shoulders, add guardrail or rumble stripes at key locations to reduce the number of these accidents.
- Upgrade about 180 miles of existing median barriers that do not meet current federal safety standards.

The estimated 10-year cost for the safety category is \$1.925 billion.

Bridge Preservation: The goal in this category is to prevent structure failure and improve safety on all state owned bridges and maintain the structural and functional integrity. Over half of the 12,656 bridges on the SHS are over 30 years old and in need of major rehabilitation or replacement. Projects in this category include:

- Major rehabilitation or replacement of about 600 bridges by 2012. Many of these structures are on main highways and carry a high volume of traffic and goods. More routine and lower cost rehabilitation is needed on as many as 8,000 bridges.
- Correct about 165 bridges at risk of failure due to scour in the next five years.
- Replace about 400,000 lineal feet of non-crash worthy bridge rail by 2012.
- Widen bridges to provide standard lane and shoulder width.

The estimated 10-year cost for the bridge preservation category is \$2.89 billion.

Roadway Preservation: There are over 50,000 lane-miles of highway in the SHS. About 11,000 of those lane-miles are deteriorated. The goal is to reduce the number of deteriorated lane-miles and upgrade where needed to meet current standards. Projects in this category propose to:

- Rehabilitate or reconstruct deteriorated roadways to reduce the level of deterioration to 5,500 lane miles.
- Reopen damaged roadways within 180 days of a catastrophic event and provide a permanent restoration within three years.
- Provide permanent solutions to at least five locations on the SHS that are prone to repeated failure and closure.
- Bring all existing signs and lighting up to current standard by 2012. There are over 200,000 signs and 70,000 lighting fixtures that need improvement.

The estimated 10-year cost for this category is \$8.95 billion.

Roadside Preservation: The goal is to preserve the character of the original roadside features recognizing changing use demands, worker safety, updated statute and regulatory conditions. This goal allows the Department to keep its promises made during environmental clearance to regulatory agencies and the public, improve motorist and worker safety, and comply with ADA and other mandates. Projects in this category propose to:

- Restore about 11,500 acres of dead or dying vegetation and provide new irrigation systems that reduce worker exposure and over watering by 2012.
- Provide new safe worker access at 1,500 locations by 2009.
- Correct all code and statutory deficiencies at all 88 of the existing safety roadside rests by 2008.
- Add 2000 parking spaces at 24 new safety roadside rests by 2010.
- Provide roadside enhancements, mitigation, beautification and modernization for compatibility with surrounding communities where mandated.

The estimated 10-year cost for this category is \$1.592 billion.

Mobility: The goal is to reduce the annual delay on State Highways by 120 million vehicle hours by 2012, and to increase the safety and mobility of goods movement. The proposed actions will maximize capacity of the existing highway facility. This category includes:

- Operational improvements to eliminate bottle necks and reduce congestion. These improvements will reduce recurring congestion and delay by up to 60 million vehicle-hours annually by 2012.
- New and improved traffic management systems to detect, verify and handle traffic incidents quicker and reduce non-recurring delay by an estimated 60 million vehicle-hours annually by 2012.
- Improve commercial vehicle safety by maintaining existing commercial vehicle inspection stations and building two new facilities every three years consistent with the approved development plan.
- Upgrade 95 bridges that cause extensive out of direction travel by extra-legal transportation permit loads. These projects will also improve safety by reducing the number of bridge hits by trucks.

The estimated 10-year cost for this category is \$5.018 billion.

Transportation Facilities: The goal in this category is to maintain the Department's support facilities to standards required by law. Many of the existing maintenance and equipment facilities were built 50 or more years ago. Many of the facilities do not comply with current ADA requirements, fire/life/safety codes, and many have hazardous material problems. In addition, many of the sites will not accommodate modern large equipment and as a result maintenance and other work is being done in the open yard or at other sites. This category also includes relinquishment of facilities no longer needed, noise attenuation for schools and hazardous waste mitigation. The category proposes to:

- Upgrade seven maintenance facilities annually to ensure they meet current code and are adequate for crews to safely perform their work.
- Upgrade one equipment facility per year to meet code and adequately accommodate today's larger vehicles.
- Negotiate relinquishment agreements with local jurisdictions to allow transfer of facilities that are no longer needed for the SHS. The estimated cost to bring the roadway to a state of good repair is based on past trends and will be identified on a case by case basis.
- Comply with the mandates in Section 216 of the Streets and Highways Code to reduce SHS increased noise in impacting schools. Estimated cost for this activity is expected to be minimal over the 10-year period and will be determined on a case by case basis.

- Clean up hazardous materials as needed. Funding for this activity recognizes that some locations are outside the limits of programmed projects and will need to be funded separately.

The total estimated 10-year cost for this category is \$883 million.

The Plan also includes separately managed categories for SHOPP TEA (Transportation Enhancement Activities), storm water mitigation and budgeted office building improvements. The total estimated 10-year cost for these separately managed categories is \$1.021 billion.

A common theme during each workshop was the need for additional funding to improve safety, reduce accidents and congestion, and allow timely rehabilitation and reconstruction of the SHS. The Department has struggled to keep up with the growing project needs, but the system continues to deteriorate at a faster rate and traffic volumes continue to increase. In 2000, there was an estimated 162 billion vehicle miles traveled on the SHS. That is over 440 million vehicle miles of travel every day, and includes the daily movement of over one and a half million tons of goods. It is projected that the demand will increase to about 251 billion vehicle miles annually by 2020 (nearly 690 million vehicle miles per day) including 770 million tons of goods (2.1 million tons per day). Continued investment in the SHS is needed in order to keep these people and goods moving.

The goals and estimated funding levels presented in the 2002 Plan would meet the growing demands placed on the SHS. However, because of reduced transportation revenues, other funding options have been considered and are summarized below. Each option includes a brief discussion of what will be accomplished for the level of funding proposed, and the consequences. The primary concern is that any deferred action in maintaining or rehabilitating the system will result in significant cost increases over the long term. Costs over time increase due to inflation, but delay also allows deterioration to continue and even accelerate which significantly increases cost.

Option 1: Status Quo

This option maintains the SHS in about the same condition as it is today. Full funding is provided for safety and safety related projects including emergencies, with reduced funding in other categories until additional funds become available later. The current level of roadway deterioration will stay about 11,000 lane miles. This option will result in an increased number of pavement failure emergency projects. The goal of reducing pavement rehabilitation to 5,500 lane-miles by about 2010 will not be accomplished. Some bridge rehabilitation work will be delayed to allow funding for several major replacement projects, which will result in high future costs due to increased deterioration. There is a possibility that some bridges could be posted for load limits. Statutory and code requirements would be met at the existing safety roadside rests, but no new facilities would be built. Investments in mobility will not keep pace with increased traffic volumes so congestion will continue to increase. This option also increases potential liability and the likelihood of public complaint. This option is not recommended for a 10-year period, but for the short term of the 2004 SHOPP, the estimated 4-year estimated cost is \$5 billion (\$1.25 billion per year).

Option 2: Status Quo Plus

This option duplicates Option 1, except that additional funds are added to allow reduction of deteriorated pavement consistent with the goal to reduce deteriorated pavement to 5,500 lane-miles. Additional bridge funds are also included in this option to minimize the risk of load limits on priority corridors. The estimated 4-year estimate of cost for this option is \$6.6 billion (\$1.65 billion per year).

Option 3: Status Quo Minus (Severe Constraint)

This option constrains SHOPP funding below project need because of the current transportation funding crisis. This is considered a 'no other choice option' and provides funds only for safety, safety related, emergency and critical (i.e. can't wait) pavement, bridge, roadside and facility projects. Mobility projects to address congestion would become the full responsibility of each Region with funding from their Regional STIP share or other local or developer funds. Consequences of this option include increased level of deteriorated pavement and risk of bridge load limits, closure of safety roadside rests, violation of water quality and other statutory requirements. There will be an increased number of emergency pavement and bridge failure projects. Future cost to correct the growing deferred rehabilitation will increase significantly. Vehicle and goods movement costs will increase due to increased vehicle damage from the poor highway conditions. It will take longer to reach destinations. This will result in movement of jobs to other states as a consequence of the poor condition of the SHS. This option is not recommended. If required because of reduced available funds, the constrained funding should be for no more than one year and the funding level should be no less than \$950 million. Future year funding should return to the status quo or status quo plus option level as soon as possible, and then to the 2002 Plan level when funding is available.

Option 4: Implement the 2002 Plan

The 2002 Plan is an aggressive proposal that will keep the SHS in a safe and well-maintained condition, reducing significant levels of future congestion and delay. This option protects the public's investment in the SHS and provides for the continued movement of people and goods. The estimated 10-year cost of this option is \$22.3 billion. With an average annual cost of about \$2.25 billion, the four-year 2004 SHOPP funding need is \$9 billion. This option funds all safety and safety related needs, reduces pavement deterioration to about 5,500 lane-miles, rehabilitates and replaces older bridges and corrects for scour risk, upgrades roadside rests, reduces congestion, provides adequate and safe worker facilities, and keeps the SHS in a safe and efficient condition. The only deterrent to this option is the current lack of transportation funding and the need for choices between the competing priorities.

Recommendation:

Funding for the 2004 SHOPP will be determined through the fund estimate process. Statutes mandate safety and rehabilitation/reconstruction of the existing state highway system as a higher priority than expanded capacity. The Department recommends consideration of the 2002 Plan as the preferred funding option for the SHOPP if funding is available. If revenue limits the level of funding that can be programmed in the SHOPP, Options 1, 2 and then 3 are recommended in that order. If it is necessary to severely constrain funding for the SHOPP, it is recommended that this be for no more than one year.