MEETING NOTICE AND AGENDA

TransNet INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE (ITOC)

The ITOC may take action on any item appearing on this agenda.

Monday, June 28, 2010
9:30 a.m.

SANDAG
SANDAG Board Room
401 B Street, 7th Floor
San Diego, CA 92101

Staff Contact: Kim Kawada
(619) 699-6994
kka@sandag.org

AGENDA HIGHLIGHTS

• 2010 TransNet PLAN OF FINANCE UPDATE
• URBAN AREA TRANSIT STRATEGY
• 2050 REGIONAL TRANSPORTATION PLAN: GOODS MOVEMENT PROJECT EVALUATION CRITERIA

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To request this document or related reports in an alternative format, please call (619) 699-1900, (619) 699-1904 (TTY), or fax (619) 699-1905.
Welcome to SANDAG. Members of the public may speak to the TransNet Independent Taxpayer Oversight Committee (ITOC) members on any item at the time the ITOC is considering the item. Also, members of the public are invited to address the ITOC on any issue under the agenda item entitled Public Comments/Communications/Member Comments. Speakers are limited to three minutes. The ITOC may take action on any item appearing on the agenda.

This agenda and related staff reports can be accessed at www.sandag.org under Meetings on SANDAG’s Web site. Public comments regarding the agenda can be forwarded to SANDAG via the e-mail comment form also available on the Web site. E-mail comments should be received no later than noon, two working days prior to the ITOC meeting.

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INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE
Monday, June 28, 2010

ITEM #

+1. SUMMARY FOR THE MAY 12, 2010, ITOC MEETING

A summary of the May 12, 2010, ITOC meeting has been prepared for the Committee’s review and approval.

Estimated Start Time: 9:30 a.m.

+2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

Members of the public will have the opportunity to address the ITOC on any issue within the jurisdiction of the Committee. Speakers will be limited to three minutes each. Committee members also may provide information and announcements under this agenda item.

Estimated Start Time: 9:35 a.m.

REPORT ITEMS (3 through 9)

+3. ACCEPTANCE OF FY 2009 TransNet FISCAL AND COMPLIANCE AUDITS (Lisa Kondrat-Dauphin)

The TransNet Extension Ordinance requires the ITOC to share the initial findings of the annual fiscal and compliance audits and its recommendations with the Transportation Committee 60 days prior to their release. The ITOC presented the initial FY 2009 audit findings and recommendations to the Transportation Committee on April 2, 2010. Following this review, the ITOC shall make any final amendments it deems appropriate to its report and recommendations, and adopt its report for submission directly to the SANDAG Board of Directors and the public. The ITOC is asked to accept the final FY 2009 TransNet Fiscal and Compliance Audit reports.

Estimated Start Time: 9:40 a.m.

+4. APPROVAL OF THE FY 2010 ITOC ANNUAL REPORT (Ariana zur Nieden)

At its May 12, 2010, meeting, the ITOC provided direction to staff on the draft FY 2010 ITOC Annual Report. Staff will present the draft final FY 2010 ITOC Annual Report for the Committee’s approval. Presentation of the report to the SANDAG Board of Directors is scheduled for the July 23, 2010, meeting.

Estimated Start Time: 9:55 a.m.

+5. APPOINTMENT OF FY 2010 FISCAL AND COMPLIANCE AUDIT COMMITTEE MEMBERS (Kim Kawada)

The TransNet FY 2010 fiscal and compliance audit process is scheduled to begin on July 1, 2010. The ITOC is asked to appoint members to serve on its FY 2010 Audit Committee.

Estimated Start Time: 10:10 a.m.
+6. 2010 TransNet PLAN OF FINANCE UPDATE (Kim Kawada, Marney Cox, and Richard Chavez)  DISCUSSION

SANDAG updates the TransNet Plan of Finance on an annual basis, in conjunction with the development of the annual SANDAG Budget. Staff will update the ITOC on work to date on the Plan of Finance, including updated program-level analysis of the current TransNet Early Action Program and possible additional funding scenarios for consideration.

Estimated Start Time: 10:20 a.m.

7. OVERVIEW OF DEVELOPMENTS IN THE FINANCIAL MARKETS (Lauren Warrem and Marney Cox)  INFORMATION

This monthly briefing is intended to keep the ITOC informed about the latest developments in the financial markets, the economy, and revenues, and the strategies we are exploring and implementing to minimize possible impacts to the TransNet program.

Estimated Start Time: 11:00 a.m.

+8. URBAN AREA TRANSIT STRATEGY (Carolina Gregor, Dave Schumacher, and Heather Werdick)  INFORMATION

SANDAG is developing an “Urban Area Transit Strategy” as part of the development of the 2050 Regional Transportation Plan. Staff will provide an informational report on the status of this project.

Estimated Start Time: 11:15 a.m.

+9. 2050 REGIONAL TRANSPORTATION PLAN: GOODS MOVEMENT PROJECT EVALUATION CRITERIA (Christina Casgar)  INFORMATION

Development of the 2050 Goods Movement Strategy (2050 GMS) is underway. The 2050 GMS will prioritize freight projects to be included in the 2050 Regional Transportation Plan (RTP). On May 28, 2010, the SANDAG Board of Directors approved the criteria for evaluating freight projects. SANDAG staff will provide an informational report on the evaluation criteria to be used to prioritize freight projects for the 2050 RTP.

Estimated Start Time: 12:00 p.m.

10. FUTURE MEETING SCHEDULE  INFORMATION

11. ADJOURNMENT  INFORMATION

+next to an item indicates an attachment
San Diego Association of Governments - TransNet Program

INDEPENDENT TAXPAYER
OVERSIGHT COMMITTEE

June 28, 2010

MEETING SUMMARY FOR THE MAY 12, 2010,
INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE MEETING

File Number 1500100

Action Requested: APPROVE

ATTENDANCE

Committee Members:
- Hamid Bahadori, Chair
- Jesus Garcia
- Carolyn Lee
- Jim Ryan

Absent:
- Kevin Cummins
- John Meyer, Vice Chair
- Tracy Sandoval
- Gary Gallegos

Staff:
- Kim Kawada
- Ariana zur Nieden

The meeting of the TransNet Independent Taxpayer Oversight Committee (ITOC) was called to order by Chair Bahadori at 9:35 a.m.

1. APPROVAL OF MEETING SUMMARY

Jesus Garcia, ITOC member, requested modifications to the March 25, 2010, ITOC meeting summary. He asked that the two Regional Transportation Improvement Program (RTIP) projects noted in Agenda Item No. 7, be listed in the meeting summary.

Action: Upon a motion by Carolyn Lee and a second by Mr. Garcia, the ITOC approved the March 25, 2010, meeting summary, as amended.

2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

There were no public comments.

Kim Kawada, TransNet and Legislative Affairs Program Director, reported on the status of the recruitment for filling the two vacant positions on the ITOC. She also introduced Ariana zur Nieden, the new TransNet Program Analyst.
CONSENT ITEMS (3 through 5)

Mr. Garcia asked that Item No. 3 be pulled from the Consent agenda.

4. 2008 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM: AMENDMENT NOS. 19, 20, and 24 (INFORMATION)

In July 2008, the SANDAG Board of Directors approved the 2008 RTIP, which includes major transportation projects in the San Diego region, including the TransNet Program of Projects (POP). SANDAG processes amendments on a quarterly basis based on requests from member agencies. Amendment No. 19 represents the quarterly amendments for member agencies, while Amendment No. 20 reflects the annual transit Capital Improvement Program. Amendment No. 24 was an administrative amendment that included various changes to ensure that federal formula funds apportioned to the region are programmed up to the amount available. The Transportation Committee and Board of Directors approved these RTIP amendments in April, and this report is provided to the ITOC for information, focusing on the TransNet POP.

5. QUARTERLY TransNet FINANCIAL REPORTS FOR THE PERIOD ENDING MARCH 31, 2010, AND OTHER FINANCIAL DATA (INFORMATION)

Staff provides certain TransNet financial information on a quarterly basis in accordance with requests from the ITOC, as well as in response to a recommendation from the TransNet Triennial Performance Audit.

Action: Upon a motion by Mr. Garcia, and a second by Ms. Lee, the ITOC accepted Consent Item Nos. 4 and 5.

3. ANNUAL SUBMITTAL OF REGIONAL TRANSPORTATION CONGESTION IMPROVEMENT PROGRAM FUNDING PROGRAMS BY LOCAL JURISDICTIONS (ACCEPT)

The TransNet Extension Ordinance requires all local jurisdictions in San Diego County to submit by April 1 of each year their Regional Transportation Congestion Improvement Program (RTCIP) funding programs to the ITOC for its review. The ITOC is asked to accept the RTCIP funding program submittals.

Mr. Garcia asked for clarifications why the RTCIP is not collected on non-residential projects. Ms. Kawada provided information about how the RTCIP was developed, and the discussions at that time to focus the RTCIP on residential projects.

Action: Upon a motion by Ms. Lee, and a second by Mr. Garcia, the ITOC accepted Consent Item No. 3.

REPORTS (6 through 14)

6. TransNet ANNUAL FISCAL AND COMPLIANCE AUDITS - EVALUATION SUBCOMMITTEE RECOMMENDATION (APPROVE)

The ITOC audit evaluation subcommittee completed its review of proposals and interviews for the TransNet fiscal and compliance audits contract.
Ms. Lee, a member of the ITOC evaluation subcommittee, presented the item. The members discussed the fact that the recommended firm might be the same firm that SANDAG hires for its audit and whether there would be a perceived conflict of interest.

**Action:** Upon a motion by Ms. Lee, and a second by Mr. Garcia, the ITOC approved the recommendation of the ITOC evaluation subcommittee for selection of an independent certified public accounting firm. Jim Ryan opposed.

7. **SOUTH BAY BUS RAPID TRANSIT PROJECT UPDATE (INFORMATION)**

Jennifer Williamson, Senior Regional Planner, and Joel Haven, Corridor Director, provided an update on the environmental/outreach phase and revised milestone schedule for the South Bay Bus Rapid Transit project.

**Action:** This item was presented for information only.

8. **INTERSTATE 805 CORRIDOR UPDATE (RECOMMEND)**

Mr. Haven presented an update on the Interstate 805 (I-805) corridor, including the status of the environmental documents for the north and south segments, a request to fund the design phase for two high-occupancy vehicle lanes on the north segment, and a request to delay the schedule for the Vehicle Assist Automation/Bus On Shoulder Service project.

**Action:** Upon a motion by Mr. Ryan, and a second by Mr. Garcia, the ITOC recommended to the Transportation Committee and Board of Directors that $16 million of TransNet funding be allocated to the design of the initial phase of the I-805 North Segment (for two high-occupancy vehicle lanes), only if the additional funding does not affect the delivery of other TransNet Early Action Program (EAP) projects. The ITOC also recommended to the Transportation Committee that the open-to-public date for the Vehicle Assist Automation/Bus on Shoulder Service project be moved to May 2011.

9. **INTERSTATE 5 NORTH COAST CORRIDOR UPDATE (INFORMATION)**

Allan Kosup, Corridor Director, presented an update on the Interstate 5 corridor, including the project development efforts underway and work to date on the project work program.

**Action:** This item was presented for information only.

10. **MID-COAST CORRIDOR TRANSIT PROJECT – DRAFT COMPARATIVE EVALUATION OF ALTERNATIVES REPORT AND PROJECT SCOPING (INFORMATION)**

SANDAG and the Federal Transit Administration are preparing a draft Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report for the Mid-Coast Corridor Transit Project. The draft Comparative Evaluation of Alternatives Report identifies the purpose and need for the Mid-Coast Project, defines and evaluates project alternatives, and recommends a set of alternatives for consideration during the scoping period.

Leslie Blanda, Project Development Program Manager, presented an overview of the draft Comparative Evaluation of Alternatives Report and its findings.
Chair Bahadori asked that staff consider how lessons learned from the SPRINTER rail project could be applied to the Mid-Coast project.

**Action:** This item was presented for information only.

11. **2010 TransNet PLAN OF FINANCE UPDATE (INFORMATION)**

SANDAG updates the TransNet Plan of Finance on an annual basis, in conjunction with the development of the annual SANDAG budget.

Ms. Kawada introduced the item and reviewed background information for the 2010 Plan of Finance (POF) update and the status of current TransNet EAP projects.

Marney Cox, Chief Economist, provided an update to the ITOC on the revenue projections and construction cost projections assumed in the 2010 POF update.

Richard Chavez, Principal Engineer, provided an update to the ITOC on the impact of construction cost projections on the overall EAP program in the 2010 POF update, as well as specific budget amendments proposed for individual EAP projects.

**Action:** This item was presented for information only.

12. **2050 REGIONAL TRANSPORTATION PLAN: PROPOSED PLAN PERFORMANCE MEASURES (DISCUSSION)**

Scott Strelecki, Regional Planner II, provided a report on the proposed plan performance measures for the 2050 Regional Transportation Plan (RTP). The report included refinements that have been made based on input received from the Transportation Project Evaluation Criteria Ad Hoc Working Group. ITOC members were asked to discuss and provide feedback on the proposed plan performance measures.

ITOC members discussed the importance of efficient transfers between transit services; how the proposed performance measures addressed new RTP requirements under Senate Bill 375 (Steinberg, 2008) – CO₂ emissions is proposed as a performance measure; and the influence of land use on transit ridership.

**Action:** This item was presented for discussion.

13. **DRAFT FY 2010 ITOC ANNUAL REPORT (DISCUSSION)**

Work has begun on the draft FY 2010 ITOC Annual Report.

Ms. zur Nieden, TransNet Program Analyst, presented the proposed content for the FY 2010 ITOC Annual Report, and asked for input from the ITOC on the report content and format. The Annual Report is currently scheduled to be presented to the Board of Directors on June 25, 2010. The members suggested keeping the general format the same as last year and asked staff to develop a draft report for the June ITOC meeting.

**Action:** This item was presented for discussion.
14. QUARTERLY PROGRESS REPORT ON TransNet MAJOR CORRIDOR PROJECTS (INFORMATION)

Mr. Chavez provided an overview of the TransNet major corridor projects in terms of cost control and schedule adherence based on data provided through the Dashboard reporting system. Updates and refinements to the Dashboard also were discussed. This item relates to the required quarterly reporting process specified under Paragraph 10 of the Ordinance.

Chair Bahadori asked that staff include historical transit ridership data in future quarterly reports, showing corridor performance.

Action: This item was presented for information only.

15. FUTURE MEETING SCHEDULE

The next regular ITOC meeting is scheduled for Wednesday, June 9, 2010, at 9:30 a.m. Neither Chair Bahadori nor Ms. Lee will be available for this date. Ms. Kawada will determine whether a quorum will be attained based on the status of the recruitment for new members. The clerk will poll the ITOC members regarding an alternate June meeting date if there is an issue obtaining a quorum for June 9.

16. ADJOURNMENT

Chair Bahadori adjourned the meeting at 1:39 p.m.
SAN DIEGO ASSOCIATION OF GOVERNMENTS - TRANSNET PROGRAM

INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE

June 28, 2010

AGENDA ITEM NO.: 3

Action Requested: ACCEPT

ACCEPTANCE OF FY 2009 TRANSNET FISCAL AND COMPLIANCE AUDITS

File Number 1500100

Introduction

The San Diego Transportation Improvement Program Ordinance and Expenditure Plans (Ordinances 87-1 and 04-01) specify certain requirements for the recipients of TransNet funds, including a requirement for an independent annual fiscal and compliance audit of each recipient of TransNet funds. Ordinance 04-01, TransNet Extension Ordinance and Expenditure Plan, (TransNet Extension Ordinance) assigned the responsibility of conducting fiscal and compliance audits to the Independent Taxpayer Oversight Committee (ITOC), beginning with the FY 2009 audits.

SANDAG Board Policy No. 031, TransNet Ordinance and Expenditure Plan Rules, contains several rules detailing administration of the TransNet Program and addressing the fiscal and compliance audit procedures. In accordance with the audit schedule contained in Rule #17, Section 1, Fiscal and Compliance Audit Procedures, the ITOC issues all compliance reports and adopts the annual report no sooner than 60 days following the report of the initial audit findings to the Transportation Committee. ITOC Chair Hamid Bahadori presented the initial draft audits and findings to the ITOC at its March 25, 2010, meeting. A copy of the audits may be viewed at http://www.sandag.org/uploads/meetingid/meetingid_2650_10922.pdf.

Recommendation

The ITOC is asked to accept the FY 2009 TransNet Fiscal and Compliance Audit reports, as prepared by the independent accountant firm of Caporicci and Larson (C&L) in accordance with the agreed-upon procedures (AUP), so the final reports may be issued.

Discussion

The independent certified public accounting firm of C&L performed the FY 2009 TransNet Fiscal and Compliance Audit for the sales tax revenue recipient agencies using the AUP previously approved by the ITOC. The AUP include requirements specific to the TransNet and TransNet Extension Ordinances and SANDAG Board Policy No. 031. In accordance with the TransNet Extension Ordinance and SANDAG Board Policy No. 031, Rule #17, Ken Pun of C&L presented the initial draft audits and findings to the ITOC at its March 25, 2010, meeting. A copy of the audits may be viewed at http://www.sandag.org/uploads/meetingid/meetingid_2650_10922.pdf.
The TransNet Extension Ordinance also includes a requirement that the ITOC share the initial findings of the independent fiscal audits and its recommendations with the SANDAG Transportation Committee 60 days prior to their release to resolve inconsistencies and technical issues related to the draft report and recommendations. ITOC Chair Bahadori presented the initial audit findings and recommendations at the April 2, 2010, Transportation Committee meeting. There were no comments at the Transportation Committee meeting.

Next Steps

The results of the FY 2009 TransNet Fiscal and Compliance Audit reports will be incorporated into the FY 2010 ITOC Annual Report, which is scheduled to be presented as an informational item to the SANDAG Board of Directors on July 23, 2010.

Key Staff Contact: Lisa Kondrat-Dauphin, (619) 699-1942, lko@sandag.org
APPROVAL OF THE FY 2010 ITOC ANNUAL REPORT

**Introduction**

At the May 12, 2010, ITOC meeting, staff presented the draft FY 2010 ITOC Annual Report. The ITOC reviewed and discussed the proposed report and provided direction to staff on the report’s content and format. A final copy of the FY 2010 ITOC Annual Report is included as Attachment 1, and a copy of last year’s ITOC Annual Report is included as Attachment 2.

The ITOC is asked to approve the FY 2010 ITOC Annual Report in substantially the same form as shown in Attachment 1. Presentation of the FY 2010 ITOC Annual Report is scheduled for the July 23, 2010, Board of Directors meeting.

**Attachments:**
1. Draft FY 2010 ITOC Annual Report
2. FY 2009 ITOC Annual Report

**Key Staff Contact:** Ariana zur Nieden, (619) 699-6961, azu@sandag.org
Future ITOC Activities

Many of the projects and initiatives addressed by the ITOC in FY 2010 will continue in the coming year. This includes continued implementation of the TransNet EAP, implementation of recommendations from the triennial performance audit, and completion of the FY 2010 annual fiscal and compliance audits.

To support continued progress on the EAP and possibly prepare additional “shovel-ready” projects for future funding, the ITOC also may review proposals for additional bonding.

Future Challenges

FY 2010 TransNet revenues are projected to be 10 percent lower than actual FY 2009 revenues, representing the third year in declining sales tax revenues. Although lower construction bid prices for key TransNet projects have continued to offset revenue reductions, the ITOC continues to closely monitor the latest developments in financial markets and the economy to minimize possible impacts to the TransNet program. A modest increase in TransNet revenues (less than two percent) is projected in FY 2011.

How can you get involved?

The ITOC is made up of citizens with selected expertise to provide effective oversight to protect the substantial investment the region has made in our transportation system.

Citizens can receive real-time information on TransNet projects and programs through www.KeepSanDiegoMoving.com. Within this Web site visitors can access the TransNet Dashboard, which lists detailed project descriptions, updated schedules, and budgetary information for the region’s transportation corridors. ITOC information also is available by visiting the SANDAG Web site at www.sandag.org/TransNet. Here you will find key documents related to the TransNet Extension Ordinance and a listing of past and upcoming agendas of all ITOC meetings. The ITOC meets regularly every second Wednesday of the month at 9:30 a.m. The meetings are generally held in the SANDAG downtown office at 401 8th St, Suite 800, San Diego, CA 92101, and all meeting agendas are posted to the Web site. Attendance by the public is welcome and encouraged!

Inquiries to the ITOC can be directed to itoc@sandag.org. Any persons interested in serving on the committee, as vacancies occur, are encouraged to use this same contact to request being placed on the vacancy notification list.

ITOC Membership

Hamid Bahadori** | Chair | Traffic/Civil Engineering
Kevin Cummins*** | Biology/Environmental Science
Jesus Garcia*** | Professional Licensed Engineer
Carolyn Lee | Real Estate/Right-of-Way Acquisition
John Meyer | Vice Chair | Municipal/Public Finance
Jim Ryan | Construction Project Management
Vacant | Private Sector Senior Decision Maker

* Term ends May 2013
** Term ends May 2011
*** Term ends December 2011

Current Status of TransNet Early Action Projects (in $1,000s)

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Ordinance 2002 $ Estimate</th>
<th>Escalated Ordinance 2002 $ Estimate</th>
<th>Current Budget (Year of Expenditure)</th>
<th>Baseline Open to Public</th>
<th>Current Open to Public</th>
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<tbody>
<tr>
<td>Mid-City Transit Service</td>
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<td>$924,000</td>
<td>$1,246,292</td>
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<td>Mar-15</td>
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<tr>
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<td>$471,800</td>
<td>$454,194</td>
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<td>May-14</td>
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<tr>
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<td>$124,600</td>
<td>$44,526</td>
<td>Jun-12</td>
<td>Jun-12</td>
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NOTES: All current budgets have been reviewed by ITOC and are listed in the SANDAG FY 2011 Budget. + Ordinance capital cost estimates escalated according to the Caltrans construction cost index (40 percent increase between 2002 and 2010). + The SR S2 Extension Ordinance 2002 $ Estimate comes from the Sept. ’04 Quarterly Progress Report on Transportation Projects. The cost listed in the Ordinance was only the shortfall amount. + Only projects for which the full extent of improvements have been determined or are nearly determined are listed. + Baseline Open to Public date established when project construction fully funded. + Current Open to Public dates as of May 2010 as listed in the TransNet Dashboard.
TransNet Progress in FY 2010
The SANDAG Board of Directors is responsible for selecting and prioritizing the timing of projects. The role of the ITOC is to ensure that the projects are being carried out as a result of SANDAG Board actions. The ITOC monitors the requirements of the TransNet Extension Ordinance. Billions of dollars in TransNet funds have been allocated by SANDAG to improve, expand, and better manage our well-traveled highways and regional transit systems. These funds are combined with state and federal dollars to maximize the effectiveness of transportation funding.

FY 2009 TransNet Annual Fiscal & Compliance Audit
The TransNet Extension Ordinance requires recipients of TransNet funds to comply with the requirement for an independent annual fiscal and compliance audit. The ITOC is responsible for issuing an annual audit statement on each recipient agency's compliance with TransNet fiscal and compliance audit. The ITOC is responsible for issuing an annual audit statement on each recipient agency's compliance with TransNet fiscal and compliance audit. The ITOC is responsible for issuing an annual audit statement on each recipient agency's compliance with TransNet fiscal and compliance audit. The ITOC is responsible for issuing an annual audit statement on each recipient agency's compliance with TransNet fiscal and compliance audit. The ITOC is responsible for issuing an annual audit statement on each recipient agency's compliance with TransNet fiscal and compliance audit.

• Reviewed reports from project managers on the following activities:
  - 2005 Regional Transportation Plan (RTP) – Proposed Transportation Project Evaluation Criteria and Plan Performance Measures
  - TransNet Senior Mini-Grant Project update
  - TransNet Bicycle and Pedestrian Program
  - Updated reports from corridor directors/project managers on the following TransNet Early Action Program (EAP) Projects:
    - SR 52
    - SR 76
    - Mid-Coast Corridor Transit Project
    - SuperLoop Transit
    - Mid-City Rapid Bus
    - SPRINTER
    - I-15 Express Lanes and Bus Rapid Transit (BRT)
    - I-805 Express Lanes and BRT
    - I-5 North Coast Corridor
    - Orange and Blue Line Trolley Upgrades
    - Sorrento to Mira Mar, Coastal Rail Double Track
    - South Line Rail Enhancement
    - SR 905

Results: All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements.

Result: All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements. All recipient agencies were in compliance with the maintenance of effort requirements.

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Future ITOC Activities

Although many of the projects and initiatives addressed by the ITOC in fiscal year 2008/2009 will continue, activities in the coming year will likely concentrate on the implementation of the first triennial performance audit and the completion of the first annual fiscal audit under the direct control of the ITOC.

Future Challenges

As the economic downturn accelerated through the 2008/2009 fiscal year, there has been a substantial reduction in sales tax revenues. This will certainly impact many of the programs within the TransNet Extension Ordinance. The latest update to the TransNet Plan of Finance (March 2009) for the major corridor projects predicts a present value deficit of approximately $1.3 billion over the 40-year program – a relatively small change from the year before ($1.2 billion). However, this year the effects of the sales tax revenue reductions will have to be assessed against the fact that construction bid prices for key TransNet projects continue to come in less than estimated. Regardless of the outcome of the analysis, the region will have to continue to seek out supplemental funding sources to ensure all projects included in the TransNet Extension Ordinance are constructed.

How can you get involved?

The ITOC is made up of citizens with selected expertise to provide effective oversight to protect the substantial investment the region has made in our transportation system. Citizens can receive real-time information on TransNet projects and programs through www.KeepSanDiegoMoving.com. Within this Web site visitors can access the TransNet Dashboard, which lists detailed project descriptions, updated schedules, and budgetary information for the region’s transportation corridors.

ITOC information also is available by visiting the SANDAG Web site at www.sandag.org/TransNet. Here you will find key documents related to the TransNet Extension Ordinance and a listing of past and upcoming agendas of all ITOC meetings. The ITOC meets regularly every second Wednesday of the month at 9:30 a.m. The meetings are generally held in the SANDAG downtown office at 401 B Street, Suite 800, San Diego, CA 92101, and all meeting agendas are posted to the Web site. Attendance by the public is welcome and encouraged!

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ITOC Membership

Hamid Bahadori* - Interim Chair - Traffic/Civil Engineering Kevin Cummins** - Biology/Environmental Science Jesus Garcia** - Professional Licensed Engineer Carolyn Lee* - Real Estate/Right-of-Way Acquisition Valerie Harrison** - Private Sector Senior Decision Maker John Meyer* - Chair - Municipal/Public Finance Jim Ryan* - Construction Project Management

* Term ends May 2011
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*** Term ends December 2011

Current Status of TransNet Early Action Projects (in $1,000s)

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<tr>
<td>Mid-City Corridor Transit Service</td>
<td>$660,000</td>
<td>$1,056,000</td>
<td>$1,246,292</td>
<td>$190,292</td>
<td>18%</td>
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<tr>
<td>University Town Center Transit Service</td>
<td>$30,000</td>
<td>$48,000</td>
<td>$39,187</td>
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<td>-18%</td>
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<td>I-15 Express Lanes and Transit Service</td>
<td>$769,000</td>
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<tr>
<td>SR 52 Extension: SR 125 to SR 67</td>
<td>$333,000</td>
<td>$532,800</td>
<td>$548,905</td>
<td>$16,105</td>
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<tr>
<td>SR 76 Extension: Melrose Drive to I-15</td>
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<td>$469,772</td>
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<tr>
<td>Blue Line Trolley Ugrades</td>
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<td>$428,800</td>
<td>$354,863</td>
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<tr>
<td>Orange Line Trolley Ugrades</td>
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<tr>
<td>Mid-City Transit Service</td>
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<td>$142,400</td>
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<td>South Bay Bus Rapid Transit Service</td>
<td>$497,000</td>
<td>$795,200</td>
<td>$709,627</td>
<td>$-85,573</td>
<td>-86%</td>
</tr>
</tbody>
</table>

Notes: All current budgets have been reviewed by ITOC and approved by the Board of Directors. • Ordinance capital cost estimates escalated according to the California inflation cost index (60 percent). • The SR 52 Extension Ordinance cost estimates come from the Sept. 04 Quarterly Progress Report on Transportation Projects. The cost listed in the ordinance was the shortfall amount. • Only projects that the full extent of improvements have been determined or are nearly determined are listed. • The full extent of improvements for the I-15 Express Lanes and Transit Service and South Bay Bus Rapid Transit Service has not yet been determined.

Independent Taxpayer Oversight Committee

2009 Annual Report

The Independent Taxpayer Oversight Committee (ITOC) monitors the expenditure of TransNet funds, the voter approved half-cent sales tax for transportation improvements. The Committee also helps ensure that all voter mandates are carried out and develops recommendations for improvements to the financial integrity and performance of the TransNet program. The Committee was established as a condition of the 2004 TransNet extension.

TransNet Extension 2008-2048

In 2004, 67 percent of the region’s voters supported the extension of TransNet from 2008 to 2048 — thereby generating an additional $14 billion to be distributed among highway, transit, and local road projects in approximately equal thirds. The San Diego Association of Governments (SANDAG) administers the TransNet half-cent sales tax. This extension is the focus of the ITOC’s responsibilities.

The 40-year extension will help fund major highway expansion projects along Interstates 5, 8, 15, and 805 as well as State Routes (SR) 52, 54, 56, 67, 75, 76, 78, 94, 125, and 905. In addition, it will support improvements to the public transportation system, including new Bus Rapid Transit (BRT) services and carpool/Managed Lanes along many of the major corridors. The TransNet extension also includes an extensive $850 million environmental mitigation program, and a $280 million smart growth incentive fund. Two percent of the available funds will be earmarked annually for bicycle paths and facilities, pedestrian improvements, and neighborhood safety projects. TransNet funds also help pay for senior, disabled, and youth discounted transit passes.

Independent Taxpayer Oversight Committee

Safeguarding your TransNet dollars

TransNet

SuperLoop Transit Project

SuperLoop began inter-bus service in June 2009 and provides transit service to major destinations in the University City area such as University of California, San Diego (UCSD) and University Towne Center (UTC). Expanded service is scheduled to open in late 2010.

I-15

Construction started on the south and north segments in March 2008 and September 2008, respectively. In March 2009, the last section of the middle segment opened to traffic, extending the exiting lanes to 16 miles of “expressway-within-a freeway.” Changes include dynamic pricing and express and local bus service to the Del Lago, Rancho Bernardo, and Sabre Springs stations. In March 2009, the environmental document was completed for the Mira Mesa/Scripps Ranch direct access ramp.

In October 2007, construction started at I-5 and Lomas Santa Fe that kicked-off an extensive project on I-5 and I-805 to widen and add Managed Lanes from Mira Mesa Boulevard at I-805 to I-5 and Vandegrift Boulevard at Camp Pendleton. Interchange improvements at Lomas Santa Fe and the HOV lane extension to Manchester Avenue were opened to users in February 2009, nearly a year ahead of schedule, easing the commute for thousands of motorists each day.

I-805

In 2008, the South Bay Expressway extension included reconstruction of I-805 from South Bay to Interstate 5, and a new interchange at Interstate 5 included in the project. The project was completed in 2008.

TransNet

Safeguarding your TransNet dollars
Triennial Performance Audit

The TransNet Extension Ordinance requires that the ITOC conduct triennial performance audits of the program to review project delivery, cost control, schedule adherence, and related activities. The first triennial performance audit report was completed in May 2009 and is available on the SANDAG Web site at www.sandag.org/itoc.

The report revealed that SANDAG and Caltrans have launched a solid network with appropriate oversight, fiscal control, program management, and project delivery practices. In particular, the following was noted as part of the report:

- A robust governance structure is employed
- Solid management over TransNet exists
- Revenue and cost models are practical
- Project delivery methods are sound

However, the report also noted opportunities for improvement and made several recommendations regarding activities that could be enhanced at a program-wide as well as project-specific level as follows:

- Develop high-level project summary documents to capture project detail relating to key project budget, schedule, and scope changes;
- Standardize ITOC administrative documents, including meeting agendas and status reports used in the ITOC oversight and decision-making process;
- Revise the intent and vision for the TransNet Dashboard to potentially include all TransNet projects as well as refine existing data to ensure accuracy and clarity of data nuances;
- Define and clarify project and program performance goals and targets to measure program performance;
- Continue to regularly monitor and review the debt to revenue ratio and report status monthly to the ITOC;
- Establish a mechanism to link and track TransNet Ordinance planned projects and amounts with current plans and budgets for all TransNet projects;
- Enhance current project management and delivery practices by ensuring post-evaluation forms are consistently used and completed for all projects after each project phase, as well as memorializing transit practices and development of uniform filing systems; and
- Ensure consistent implementation and reliance on best practices to tighten project delivery tools including risk assessment tools.

Examples of some of the performance monitoring reporting developed as a result of the performance audit are shown in the adjacent charts. The ITOC will continue to focus on the implementation of the performance audit recommendations over the next fiscal year and beyond.

TransNet Progress in FY 2008/2009

The SANDAG Board of Directors is responsible for selecting and prioritizing the timing of projects. The role of the ITOC is to assure that the projects carried out as a result of SANDAG Board actions meet all of the requirements of the TransNet Ordinance. Billions of dollars in TransNet funding have been allocated by the SANDAG Board of Directors to improve, expand, and better manage our well-traveled highways and expanding transit system. These funds are combined with state and federal dollars to maximize the effectiveness of transportation funding.

2009 Annual Report
2010 TransNet PLAN OF FINANCE UPDATE

Introduction

At the May 12, 2010, ITOC meeting, staff provided an update on work to date on the 2010 TransNet Plan of Finance, including updated revenue and cost projections. The Plan of Finance is updated on an annual basis, or more frequently as circumstances arise. The Board of Directors approved the last Plan of Finance update in March 2009. A draft of the July 2, 2010, Transportation Committee report, which provides more details about the 2010 Plan of Finance update, is included as Attachment 1.

To support continued progress on the TransNet Early Action Program and to prepare additional “shovel-ready” projects for future funding, staff is evaluating whether additional bonding may be needed over the next few years. Following additional analysis of funding scenarios, staff will present the proposed 2010 Plan of Finance to the Transportation Committee on July 2, 2010, and to the ITOC on July 14, 2010. Final action on the 2010 update is scheduled for the July 16, 2010, Transportation Committee and July 23, 2010, Board of Directors meetings.


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Marney Cox, (619) 699-1930, mco@sandag.org
2010 TransNet PLAN OF FINANCE UPDATE

Introduction

The TransNet Plan of Finance is updated on an annual basis, or more frequently as circumstances arise. The Board of Directors approved the last Plan of Finance update in March 2009. On May 7, 2010, staff provided the Transportation Committee with an informational report on the 2010 update with a focus on the major program changes that have occurred since the 2009 update, including adjustments in program revenues and project costs.

Since the May 7 Transportation Committee report, the Board of Directors approved the FY 2011 SANDAG Budget, including budget changes to several projects in the TransNet Early Action Program (EAP). This report summarizes the major revenue, budget, and cash flow assumptions used in the 2010 TransNet Plan of Finance update, noting any significant differences from 2009.

Working with our financial advisor, staff also has evaluated two initial scenarios: (1) a Baseline scenario that addresses the near-term cash flow needs to keep the existing EAP projects on their current schedules; and (2) an initial Robust scenario that would advance to construction (prior to FY 2018) several projects currently under development in key EAP corridors and prepare new “shovel-ready” projects. This report includes preliminary information about the performance of these two initial scenarios and additional bonding that would be needed over the next several years to meet cash flow needs.

The Transportation Committee is asked to discuss the initial scenarios that have been run for the 2010 Plan of Finance and provide direction to staff. This item will be presented to the TransNet Independent Taxpayer Oversight Committee (ITOC) on June 28, 2010. Any comments received from the ITOC will be presented to the Transportation Committee on July 2, 2010.

Discussion

TransNet Early Action Program

The current TransNet EAP (Attachment 1) includes the development of the Interstate 15 (I-15) Managed Lanes and Bus Rapid Transit (BRT) service; widening of State Route 76 (SR 76); State Route 52 (SR 52) widening and extension; implementation of the Mid-Coast Corridor, SuperLoop, and Mid-City Rapid transit projects; and Trolley vehicle and station upgrades along the Blue and Orange Lines. The EAP also includes environmental efforts for the Interstate 5 (I-5) North Coast corridor, including high-occupancy vehicle (HOV) lanes, and environmental and design efforts for the Interstate 805 (I-805) corridor and implementation of the South Bay BRT service.
In July 2009, the Board of Directors approved programming $70.4 million of TransNet funds for the design of seven projects in the Los Angeles-San Diego-San Luis Obispo (LOSSAN) coastal rail corridor, design of HOV lanes in the I-5 North Coast corridor, and design of guideway, a direct-access ramp and station, and HOV lanes on I-805 and along State Route 94 to support the South Bay BRT service. The objective was to replenish the number of “shovel-ready” projects, to enable the region to capitalize on future funding opportunities.

**Preliminary Analysis of 2010 Plan of Finance Update**

The last Plan of Finance update approved in March 2009 enabled SANDAG to meet the near-term cash flow needs of the TransNet EAP and the Board’s objectives to make early progress on constructing major corridor projects and to develop the next list of ready-to-go projects. The 2009 update enabled completion of all EAP construction projects by FY 2016.

With the 2010 update, we have continued to see declines in construction costs, which have led to significantly lower bid prices on several key EAP project construction contracts. For example, in 2009, the winning bid for SR 905 construction was 16 percent below the engineer’s estimate, and the winning bid for SR 76 construction was 19 percent below the engineer’s estimate. In addition to cost adjustments to the current EAP projects, these trends have led to a substantial revision to the cost escalation assumptions for this 2010 Plan of Finance update and present the Board with a unique opportunity.

The decline in project costs has helped offset the fall in sales tax revenue. This chart shown in Attachment 2 indexes the costs and revenues to 2005 and tracks their cumulative growth rates through 2017. In addition to these recent trends (costs falling more rapidly than revenues), the chart shows that staff is expecting the cumulative rate of growth in sales tax revenue to outpace the increase in construction cost. This general trend (revenues rising faster than costs) is not unusual coming out of a recession as price pressures are kept at bay while the economy struggles to get the economy above prerecession levels of economic production and output. The chart suggests that for a short period of time (about five years) the purchasing power of the TransNet program will increase, providing an opportunity to advance the planning and construction schedule of additional projects without jeopardizing the financial feasibility of the remaining projects.

Working with our financial advisor, staff has evaluated two initial Plan of Finance scenarios: (1) a Baseline scenario that addresses the near-term cash flow needs to keep the existing EAP projects on their current schedules; and (2) an initial Robust scenario that would advance to construction (prior to FY 2018) several projects that are currently under development in the EAP corridors as well as replenish the region’s list of “shovel-ready” projects.

**Baseline Scenario** - The Baseline scenario evaluated in the 2010 Plan of Finance update would enable the current EAP projects to be completed by FY 2016 (same as 2009 update). To meet near-term cash flow needs for the Baseline scenario, SANDAG would need to obtain bond financing of approximately $100-$110 million in FY 2012 and $160-$170 million in FY 2014. The program balance at the end of the 40-year program is projected to be approximately $400 million (in 2009 dollars). For comparison purposes, the 2009 Plan of Finance update projected a negative cash flow would occur in FY 2036, resulting in the need to identify $1.3 billion in additional funding (in 2008 dollars) to keep the 40-year TransNet program whole.

The substantial decline in construction costs, as reflected in the 2010 Plan of Finance update, presents a unique opportunity. Based on the analysis to date, the TransNet program would have the
capacity to advance additional EAP projects to construction, while keeping the 40-year program whole (without the need to identify additional matching funds in the future).

**Initial Robust Scenario** - In addition to the Baseline scenario, an initial “Robust” scenario has been developed to evaluate opportunities presented by the current financial and construction market conditions. Like the Baseline, the initial Robust scenario would enable the current EAP projects to be completed by FY 2016. This scenario also would advance to construction several projects under development in the LOSSAN rail corridor and allow for the completion of the environmental phases and design of other LOSSAN corridor projects. Also proposed would be various construction projects in the I-15 Corridor to support the I-15 BRT service and replacement of the Nordahl Bridge; construction of HOV lanes in the I-805 Corridor (North and South segments); and construction of a portion of the planned I-5 North Coast Corridor improvements.

The initial Robust scenario would advance about $600 million in project costs prior to FY 2018 in comparison with the Baseline scenario. To meet near-term cash flow needs for this initial Robust scenario, SANDAG would need to obtain bond financing of approximately $350-$400 million in FY 2011 and $650-$700 million in FY 2013. Under this initial Robust scenario, at the end of the 40 years the TransNet program would essentially be balanced; a very small negative cash flow is projected to occur in FY 2040, resulting in the need to identify $1.3 million in additional funding (in 2009 dollars) to keep the TransNet program whole.

**2010 Plan of Finance Assumptions**

**Projected Sales Tax Revenues** - The recession that began in December 2007 resulted in downward trends in taxable retail sales from which TransNet revenues are derived. In January 2010, the Board of Directors approved a 10 percent reduction to the FY 2010 TransNet sales tax revenue estimates, compared to actual FY 2009 receipts, making it the third year in a row of revenue declines. For FY 2011, a 1.87 percent increase in TransNet revenue is projected.

SANDAG staff expects a modest economic recovery over the next few years, with net job growth of 0.5 percent to 1.0 percent (an increase of approximately 6,000 to 12,000 local jobs). The unemployment rate is expected to begin to decline slowly beginning in the second quarter of 2010, reducing by one percentage point by the end of 2010. The anticipated slow rate of economic growth nationally and locally during the year, setting the pace of the recovery for the next few years, is reflected in our local sales tax revenue forecasts. During FY 2015, our sales tax revenue estimates are expected to exceed the level reached during 2007 prior to the start of the recession.

The overall revenue growth rates assumed in the 2009 and 2010 Plan of Finance updates are summarized in Table 1 below.

**Table 1. Plan of Finance (POF) - Projected TransNet Revenue**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 POF</td>
<td>-9.00%</td>
<td>2.00%</td>
<td>3.50%</td>
<td>3.50%</td>
<td>5.40%</td>
<td>4.50%</td>
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<td>6.37%</td>
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<td>4.91% to 6.43%</td>
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<tr>
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<td>-10.00%</td>
<td>1.87%</td>
<td>3.64%</td>
<td>5.39%</td>
<td>8.00%</td>
<td>6.70%</td>
<td>5.18%</td>
<td>4.84%</td>
<td>3.83% to 5.18%</td>
</tr>
</tbody>
</table>
State and Federal Matching Revenues - The amount of state and federal funds assumed for the EAP are based on committed funds to date, including the current Regional Transportation Improvement Program period (FY 2009 to FY 2013). For future years, SANDAG estimated federal, state, and local transportation funds based on historic experience. The 2010 Plan of Finance revenue assumptions for future years are consistent with the draft 2050 Regional Transportation Plan (2050 RTP) revenue estimates that are currently under development.

Current Board policy directs 94 percent of all discretionary state and federal formula funds\(^1\) to support the TransNet EAP, and the remaining 6 percent of these funds for non-EAP projects, such as the transportation demand management (TDM) and transportation systems management (TSM) programs.

As required by Senate Bill 375 (Steinberg, 2008), SANDAG must develop a Sustainable Communities Strategy (SCS) as part of the 2050 RTP. The SCS must meet certain greenhouse gas emission targets established by the California Air Resources Board (CARB), or SANDAG must prepare an Alternative Planning Strategy to meet the CARB targets. The initial greenhouse gas target-setting scenarios tested to date have shown that TDM and TSM measures could help reduce greenhouse gas emissions in the region. With the 2010 Plan of Finance update, staff evaluated other funding ratios that could continue to provide sufficient funds to support the TransNet EAP as well as provide opportunities to advance the region’s TDM and TSM programs. Staff recommends revising the EAP/non-EAP funding ratio from 94 percent/6 percent to 90 percent/10 percent. The draft 2010 Plan of Finance assumes 90 percent of all discretionary state and federal revenues for the EAP.

Program Costs - For TransNet EAP projects, SANDAG works with our project partners to update the Capital Improvement Program project costs and schedules as part of the annual SANDAG Budget. These revised and more detailed costs and schedules are used for the EAP projects, while the non-EAP project costs use the rates of change in costs shown below in Table 2. With the approval of the FY 2011 Budget in May 2010, the Board of Directors approved several budget changes, which are reflected in this year’s Plan of Finance update and summarized in Attachment 3.

After a period of unprecedented high rates of growth in construction costs from 2004 to 2007, we have seen an equally unprecedented decline in construction costs during the last two years (Attachment 4). This decline has resulted in lower costs for several EAP projects. Going forward, additional declines in construction costs are anticipated during FY 2011, and then costs are expected to begin to escalate and return to typical annual escalation rates of 3 percent by FY 2015. The escalation rates assumed in the 2009 and 2010 Plan of Finance updates are shown in Table 2 below:

<table>
<thead>
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<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 POF</td>
<td>-3.00%</td>
<td>0.00%</td>
<td>2.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
</tr>
<tr>
<td>2010 POF update</td>
<td>---</td>
<td>-8.00%</td>
<td>-1.00%</td>
<td>0.00%</td>
<td>1.00%</td>
<td>2.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
</tr>
</tbody>
</table>

\(^1\) These revenue sources include the State Transportation Improvement Program, Proposition 1B State-Local Partnership Program, Regional Surface Transportation Program, and Congestion Mitigation and Air Quality funding program. The American Recovery and Reinvestment Act of 2009 funding also has been dedicated to fund EAP projects.
Proposed Revision to Cost Assumptions for the I-5 North Coast Corridor - Except for construction projects currently underway, costs for typical TransNet projects are based on the original budget contained in the TransNet Extension Ordinance, updated to current year dollars, and then escalated to the year of construction based on projected construction escalation rates. For the I-5 North Coast Corridor, the TransNet Extension Ordinance assumed a $1.2 billion cost (in 2002 dollars), which when escalated to 2009, would result in a $1.7 billion cost estimate.

At the June 18 Transportation Committee meeting, Caltrans provided a status report on the I-5 North Coast Corridor project, which extends 27 miles from La Jolla Village Drive in San Diego to Vandegrift Boulevard in Oceanside. Caltrans is finalizing the project’s draft environmental document and expects to release it in early July. The draft document includes four possible build alternatives, all of which would include the construction of a four-Managed Lane (ML) facility in the median of I-5. The alternatives differ in their assumptions for additional general purpose lane widening, and whether they include either a concrete barrier separating the ML from the general purpose lanes or a four-foot painted buffer separation.2

As part of the environmental phase, Caltrans has prepared updated project cost estimates, and due to the complexity of the proposed improvements in the coastal corridor, the updated estimates are significantly higher than the original 2002 estimates. The four build alternatives range between $3.3 billion and $4.4 billion in estimated costs. To reflect these more up-to-date estimates in the 2010 Plan of Finance, staff proposes to assume a $3.3 billion cost estimate for the I-5 North Coast Corridor project, which is consistent with the lowest cost of the four build alternatives included in the draft environmental document. This higher project cost estimate has been assumed in both the Baseline and initial Robust scenarios. The initial evaluation shows that the higher estimate would not significantly impact the affordability of the overall TransNet program.

Next Steps

As part of its July 2009 action, the Board of Directors approved programming funds for the design of an initial component of the overall I-5 North Coast Corridor improvements – the addition two HOV lanes from Manchester Avenue to SR 78 and related improvements. When compared with other potential EAP projects that could be advanced to construction, the I-5 North Coast Corridor project has significant risks that could impact the project delivery schedule; these schedule risks include the improvements needed across multiple coastal lagoons and securing necessary permits from the California Coastal Commission.

Staff is currently making refinements to develop additional versions of the “Robust” scenario – one that includes advancing the construction of the two HOV lanes and related improvements in the I-5 North Coast Corridor prior to FY 2018 and another that assumes construction completion after FY 2018. The purpose of evaluating these revised versions of the Robust scenario is to determine the impact advancing the I-5 North Coast Corridor HOV improvements would have on the near-term borrowing needs for the TransNet program (FY 2011-FY 2013).

This additional scenario analysis would be presented to the ITOC on July 14, 2010, and to the Transportation Committee on July 16, 2010. At that time, the ITOC and Transportation Committee also would be asked to make a recommendation to the Board of Directors on the 2010 TransNet

2 The four alternatives include: (1) 8 general purpose lanes plus 4 buffer-separated 4 ML; (2) 8 general purpose lanes plus 4 barrier-separated ML; (3) 10 general purpose lanes plus 4 buffer-separated 4 ML; and (4) 10 general purpose lanes plus 4 barrier-separated ML.
Plan of Finance update. Final action on the 2010 update is scheduled for the July 23, 2010, Board of Directors meeting.

KIM KAWADA
TransNet and Legislative Affairs Program Director

Attachments: 1. TransNet Early Action Projects - May 2010 (map)
              2. Comparison of TransNet Revenues and Construction Index - Cumulative Escalation Indexed to 2005
              3. Summary of Approved Budget Changes to TransNet Early Action Program
              4. Caltrans Construction Cost Index

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                   Richard Chavez, (619) 699-6989, rch@sandag.org
                   Marney Cox, (619) 699-1930, mco@sandag.org
EARLY ACTION PROJECTS
May 2010

1. SR 76:
   Widen highway

2. SR 52:
   Widen and extend highway

3. Mid-Coast:
   Transit: Old Town-UCSD
   Transit: UTC SuperLoop

4. I-15:
   HOV/Express Lanes
   Transit: Escondido-Downtown
   Transit: Escondido-Sorrento Valley

5. I-805:
   HOV/Express Lanes
   Transit: Otay-Downtown
   Transit: Otay-Sorrento Valley

6. North Coast:
   I-5 HOV/Express Lanes
   Coastal rail double-tracking

7. SPRINTER:
   Oceanside-Escondido light rail

8. Blue and Orange Line Trolley:
   Low-floor vehicles
   Station upgrades

9. Mid-City:
   Transit: Downtown-SDSU

10. Goods Movement:
    South Line rail upgrades
    SR 905

Highway Projects
- Completed
- Under Construction
- Preliminary Engineering

Transit Projects
- Completed
- Under Construction
- Preliminary Engineering
- Light Rail Line
Comparison of TransNet Revenues and Construction Index
Cumulative Escalation Indexed to 2005

Cumulative Escalation Indexed to 2005
Summary of Approved Budget Changes
to TransNet Early Action Program

With the approval of the FY 2011 SANDAG Budget in May, the Board of Directors approved several TransNet Early Action Program (EAP) budget changes, which are reflected in this year’s Plan of Finance update and are summarized below. Overall, the total program budget for the TransNet EAP would be reduced by approximately $131 million, largely resulting from lowered rates of change in construction costs and lower bid prices. The resulting program-level EAP budget would be approximately $5.27 billion. Adjustments to individual project budgets include:

- Reductions in project budgets, based on lower than expected bid amounts for current I-15, SR 52, and SR 76 construction projects. In addition, budget reductions for future I-15, I-805, and SR 76 construction projects are included as a result of lowered construction escalation rates in future fiscal years.

- Support cost increases are included for I-15 and I-805 corridor projects. Additional work required as part of the I-15 FasTrak® system installation and additional environmental studies needed for the I-805/Carroll Canyon project have resulted in an increased need for Caltrans support.

- An additional $16 million in TransNet funding is included for the design of the initial phase of the I-805 North project.

- The SuperLoop transit project budget was reduced by $2.84 million based on a lower estimate to complete.

- A $6.60 million increase is included to complete environmental clearance on the I-5 North Coast corridor project.

- A $1.96 million increase is included for the LOSSAN Oceanside Station Stub Tracks and Crossovers project to cover increased design costs; the impact footprint for this project was underestimated during the initial planning phase.

- The recently obtained $8.4 million ARRA high-speed rail grant was added to the LOSSAN Tecolote–Washington Street Crossovers project budget.

- A minor reduction in Environmental Mitigation Program costs as a result of escalation factor.
<table>
<thead>
<tr>
<th>CIP #</th>
<th>TransNet Corridor</th>
<th>FY 2011 Approved Budget ($000s)</th>
<th>FY 2010 Approved Budget ($000s)</th>
<th>Increase/Decrease</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
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<td>1201501</td>
<td>I-15 South ML</td>
<td>$361,937</td>
<td>$411,997</td>
<td>($50,060)</td>
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<tr>
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<td>Increase/Decrease</td>
<td>Reason</td>
</tr>
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<td><strong>Total</strong></td>
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URBAN AREA TRANSIT STRATEGY

Introduction

Every four years, SANDAG updates its Regional Transportation Plan (RTP). The current RTP, known as the 2030 RTP, was adopted by the SANDAG Board of Directors in 2007 and extends to the year 2030.

SANDAG is currently preparing a 2050 RTP, extending 20 years beyond the current horizon year. This horizon year of 2050 will allow SANDAG the opportunity to better align the plans and projects included in the TransNet Extension Ordinance and Expenditure Plan with the RTP. The 2050 RTP is scheduled for Board approval in summer 2011.

An important part of the 2050 RTP is the development of an innovative and visionary "Urban Area Transit Strategy." The Urban Area Transit Strategy will serve as the basis for development of the regional transit network to be included in the 2050 RTP.

Discussion

Through the planning process, staff has developed and begun testing three transit network alternatives with a focus on the urban areas of the San Diego region. Ultimately, one of the networks (or a combination or variation) will be incorporated into the 2050 RTP and its Sustainable Communities Strategy. The overarching goal is to create a world-class transit system for the San Diego region in 2050 that significantly increases the use of transit, walking, and biking in the urbanized areas of the region, makes transit more time competitive with the automobile, maximizes the use of transit during peak periods, and reduces greenhouse gas emissions and vehicle miles traveled in the region.

The attached Board reports summarize the status of the Urban Area Transit Strategy and provide a general overview of the approach for developing the 2050 Unconstrained Transportation Network, where the transit and highway components of the RTP will come together.

Attachments:
2. Copy of June 11, 2010, Board of Directors report for 2050 Regional Transportation Plan: Development of the Initial Unconstrained Transportation Network

Key Staff Contacts: Carolina Gregor, (619) 699-1989, cgr@sandag.org
Dave Schumacher, (619) 699-6906, dsc@sandag.org
Heather Werdick, (619) 699-6967, hwe@sandag.org
2050 REGIONAL TRANSPORTATION PLAN:
UPDATE ON THE URBAN AREA TRANSIT STRATEGY

Introduction

Every four years, SANDAG updates its Regional Transportation Plan (RTP). The current RTP, which extends to the year 2030, was adopted in 2007. SANDAG is currently preparing a 2050 RTP, which is scheduled for adoption in 2011.

An important part of the development of the 2050 RTP is the preparation of an innovative and visionary “Urban Area Transit Strategy.” The Urban Area Transit Strategy will serve as the basis for development of the regional transit network to be included in the 2050 RTP along with all of the other modal networks (highway, high occupancy vehicle (HOV)/Managed Lanes, bicycle and pedestrian improvements, freight improvements, etc.). As part of the strategy, three draft transit network alternatives have been developed for analytical purposes.

The purpose of today’s report is threefold: (1) to introduce the draft transit network alternatives and summarize feedback received to-date; (2) to review proposed transit mode share goals for key corridors/communities; and (3) to present a preliminary summary of the performance of each network. These items will help inform Board discussion on Item 3B, the development of the 2050 Unconstrained Transportation Network.

Initial Transit Scenarios and Feedback Received

Through the planning process, staff has developed and begun testing three transit network alternatives with a focus on the urban areas of the San Diego region. Ultimately, one of the networks (or a combination or variation) will be incorporated into the unconstrained transportation network in the 2050 RTP. The overarching goal is to create a world-class transit system for the San Diego region in 2050 that significantly increases the use of transit, walking, and biking in the urbanized areas of the region, makes transit more time-competitive with the automobile, maximizes the use of transit during peak periods, and reduces greenhouse gas emissions and vehicle miles traveled in the region.

The transit alternatives under study are grouped into three themes and illustrated conceptually as follows:

- **Transit Propensity**
  Expands Transit in the Most Urbanized Areas

- **Commuter Point-to-Point**
  Emphasizes Quick Access to Work

- **Many Centers**
  Connects Local Smart Growth Areas and Activity Centers
The three transit alternatives have been intentionally designed to vary significantly from one another in order to test how different transit strategies might function in the long-term when compared across a number of performance measures.

The draft networks have been presented to the Transportation and Regional Planning Committees, various SANDAG working groups, an outside Peer Review Panel, and at the five 2050 RTP public workshops (held April 26 – May 6, 2010). Subway-style maps of each draft alternative are provided in Attachments 1 – 3, and a brief description of the initial concept behind each alternative is provided in Attachment 4. The study area for the Urban Area Transit Strategy is provided in Attachment 5 for reference purposes. More detailed maps, including transit routes and station locations, are available on the SANDAG Web site at www.sandag.org/uats.

In Item 3B of today’s report, staff is recommending initial routes for incorporation into an unconstrained regional transit network for the 2050 RTP that is a combination of network elements from the draft transit alternatives based on comments by the policymakers, stakeholders, the public, and the Peer Review Panel; the overall performance of the networks with respect to identified performance measures (discussed below); the performance of specific routes and modes; and other factors. The report goes on to assess the regional highway network in order to set the stage for developing a comprehensive transportation network.

Feedback Received

In general, staff has received positive feedback on the concept of developing and testing alternative transit strategies, and on the draft networks developed to-date. At its April 16, 2010, meeting, Transportation Committee members articulated support for the networks being tested in the three alternatives and expressed excitement at the prospect of building a robust transit network that can enhance regional mobility options and potentially influence the region’s reduction of greenhouse gas emissions.

During the remainder of April, staff presented the transit networks to the Regional Planning Technical Working Group (TWG), the Cities/County Transportation Advisory Committee (CTAC), the Regional Planning Stakeholders Working Group (SWG), and the Quality of Life Stakeholder Working Group. Earlier this month, the networks also were presented to the Regional Planning Committee. Comments by the working groups generally have been positive. While some working group members are concerned that the alternatives do not sufficiently emphasize transit in the less urbanized areas, others are concerned that the networks are too broad and there is insufficient focus on the urban core. In addition, working group members have encouraged staff to conduct analysis on the effects of land use assumptions, user charges, and transportation demand management before finalizing mode share goals. Suggestions also have been received to identify regionally-based transit mode share figures, in addition to corridor-based mode share figures. Other ideas included evaluating a broader range of ideas for last-mile solutions that could include the use of taxicabs, addressing parking pricing, and considering fare-free zones or fare-free routes as a way of increasing mode share.

A wide range of comments were made at the RTP public workshops. Attachment 6 provides a sampling of some of the comments received. SANDAG is encouraging additional comments via the Web site at www.sandag.org/uats.
Peer Review Panel Key Findings

As a unique part of the planning process, SANDAG assembled an outside Peer Review Panel to critically assess the alternative networks. The Peer Review Panel, which consisted of two public sector and two private sector panelists with extensive professional experience in land use, economics, transportation, congestion management, transit management, and transit-oriented development, convened in San Diego during the week of April 19, 2010. (Peer Review Panel biographies are included in Attachment 7.)

Generally, the Peer Review Panel felt that the Transit Propensity and Many Centers transit networks had merit and could each result, to varying degrees, in a successful long-term transit network. The Panel stated that while the 2050 RTP will define the region’s long-term mobility vision, the plan’s ultimate success will be grounded in the implementation of near-term demonstration or “catalyst” projects that showcase elements of the transit vision, particularly the integration of transit into smart growth areas. More specifically, the following observations were made about the alternative transit scenarios:

- **Transit Propensity**: The Panel observed that this scenario may be too focused on some geographically-concentrated areas to the exclusion of other areas (such as major employment areas, University City, and North County) to meet the region’s long-term mobility goals.

- **Commuter Point-to-Point**: The Panel expressed nervousness about promulgating a type of mobility that supports a dispersed land use pattern. The Panel felt that this scenario may encourage longer trips by both autos and transit, and that this scenario portrayed a more “business as usual” approach that may not have the ability to influence land use decisions toward more integrated communities and sustainability.

- **Many Centers**: The Panel commented that this scenario provides a solid vision, but may need to be refined. Panelists suggested focusing transit investments into a smaller number of smart growth centers that either already have high housing and employment densities or have smart growth plans in the early phases of the regional growth forecast, thereby placing a priority on existing and near-term smart growth. The Panel recommended that SANDAG revisit its Smart Growth Concept Map and consider making changes that might coalesce the smaller smart growth areas into larger-scale ones, thereby promoting “smarter” smart growth.

In addition, the Panel provided broader, more global observations summarized in Attachment 8, focusing on issues such as economic competitiveness; technological savviness; world-class region; sustainability and co-benefits; land use development around transit stations; land use, freeways, and parking; project prioritization; leadership and champions; and dedicated funding sources. In addition to the group findings, several Peer Review Panelists also contributed individual opinions, summarizing their observations of the region’s strengths and weaknesses. Those individual viewpoints are contained in Attachment 9.

Interestingly, many of the observations by the Peer Review Panel reinforce some of the key “Overarching Themes” and “Considerations for San Diego” summarized in the Executive Summary of the Lessons Learned from Peer Regions report produced by the SANDAG consultant team on this project when it began late last year. These overarching themes and considerations are contained in Attachment 10.
Proposed Transit Mode Share Goals

The Urban Area Transit Strategy work program includes developing peak-period transit mode share goals for regionally significant corridors/communities for 2050. There are two general issues that must be addressed in identifying mode share goals: first, how to determine the most suitable corridors/communities for which to establish mode share goals; and second, how to set appropriate mode share goals for the selected areas. Theoretically, the goals should be ambitious yet achievable, based on quantifiable trends and patterns, and have the ability to be measured over time. As a starting point for identifying where transit mode share goals would be most appropriate, staff identified geographic areas and travel corridors based on:

- High-volume travel corridors (all motorized trips), both current and future, that factor in trip purpose, trip origins and destinations, and time of day (such as peak-period vs. off-peak);
- Major job centers that attract large volumes of peak-period trips;
- Land use patterns that focus on locations with transit-supportive land uses (such as higher densities, walkable communities) and where access to transit (and often existing transit mode share) is high; and
- Existing transit markets that have been identified through the Metropolitan Transit System Comprehensive Operational Analysis (COA) and the North County Transit District Mobility Plan to ensure that RTP transit mode share goals are consistent with current short-range transit plans.

Attachment 11 illustrates the travel corridors, major employment areas, and high-activity areas for use in identifying peak-period transit mode share goals.

After conducting research, it is staff’s conclusion that very few areas have actually established transit mode share goals for corridors or communities. As a result, an approach similar to one used in Brisbane, Australia, is being proposed to develop the mode share goals. This approach involved aiming to increase the proportion of trips made on public transit by 50 percent between the plan’s initial and target year. The plan recognized that achieving a 50 percent increase in public transit’s share of all travel would be an ambitious, yet achievable, target over the 14-year planning period. There was initial discussion of doubling the mode share (increasing it to 100 percent), and it was found that that goal would be impossible without requiring significant revisions to curtail the expansion of urbanization and strict new measures to restrain single-occupancy vehicle use during peak-period commute times. Neither of those actions appeared to be possible at that time, given community lifestyle and travel patterns, but the plan left open the possibility of revisiting the target in future plans.

Proposed Approach

In the case of the San Diego region, the staff recommendation is to start with a more aggressive base year — a base year consisting of a combination of the 2030 RTP transportation network and the 2050 land uses¹ — as the foundation upon which to set peak-period, home-to-work transit mode share goals in the urban area. This would provide a higher starting point for any proposed mode share increase. Staff then proposes applying a goal of a 25 percent increase in the peak-

¹ The base year assumes the higher mode share value of either the currently adopted 2030 Reasonably Expected RTP or the 2030 Unconstrained RTP, combined with the 2050 land uses.
period transit mode share over this base year assumption. (This approach is different than the Brisbane method, which used an existing base year of 1997 as the starting point for a 50 percent increase.) The approach would be applied to the urban area, as well as to the identified corridors/areas.²

For example, the current 2030 RTP Unconstrained Network would increase the mode share for peak-period, home-to-work trips within the Urban Area Transit Strategy study area from the 2008 level of 5 percent to the 2030 projected level of 9 percent, an increase of 80 percent between 2008 and 2030. Applying the 25 percent goal would mean increasing the 2030 RTP mode share an additional 25 percent from 9 percent to 11 percent as the starting point for the 2050 transit mode share goal for the study area. The end result would be a rise in the mode share by 120 percent between 2008 and 2050. Because the year 2050 is 40 years away, and the current tools to predict human travel behavior that far into the future are not completely accurate, staff is proposing that the goals be generalized into “goal ranges” based on patterns of geographic groupings. This would result in a 10-15 percent transit mode share goal range for the urban area. This would more than double the peak-period, home-to-work transit mode share in the urban area during this time period. When considering the proposed mode share increases from existing levels to the year 2030 in the current RTP, it seems reasonable to set 25 percent as an ambitious, yet achievable, goal.

Proposed Goal Ranges

Attachment 12 contains the information described above and the peak-period, home-to-work transit mode share goal ranges based on the geographic groupings for the various corridors/areas. Attachments 13a, 13b, and 13c illustrate the 2008 peak-period transit mode shares, the mode shares for the 2030 RTP Network with the 2050 land uses, and the proposed 2050 transit mode share goal ranges from a geographic perspective.

Next Steps for Mode Share Goals

Over the next few months, staff proposes to conduct sensitivity tests by corridor/area to see how various adjustments could further affect peak-period transit mode share. These may include options such as increasing transit frequencies, increasing transit travel speeds, testing parking pricing, adjusting land use assumptions, or other scenarios to help refine the peak-period, home-to-work transit mode share goal ranges.

In addition, in an effort to consider mobility options from a multimodal perspective, staff also will examine mode share goals for walking/biking, carpooling, and vanpooling, which, when combined with transit mode share goals, can ultimately provide a more comprehensive view of overall non-single-occupancy vehicle peak-period mode share for incorporation into the 2050 RTP.

The Transportation and Regional Planning Committees are discussing the proposed methodology and the resulting transit mode share goal ranges at their joint meeting on June 4, 2010, and any comments made will be provided verbally at the June 11 Board Policy meeting. Staff will report the modeled transit mode share performance at a future meeting.

² Having transit mode share goals for the urban area and for several specific corridors/areas, rather than a single regionwide transit mode share goal, better reflects how transit investments are made, that is, focused on specific areas where the propensity for using transit is the highest.
Performance of Transit Network Alternatives

Analysis is underway to compare the three transit networks against one another, as well as against a baseline scenario, which consists of an overlay between the 2030 RTP transportation network and the land use assumptions included in the 2050 Regional Growth Forecast. The analysis is organized according to performance measures that line up with the following objectives that support the overall transit goals for the San Diego region in 2050:

- Increase peak-period mode share
- Maximize transit ridership
- Develop a cost-effective and implementable transit system
- Support an efficient and effective transportation system
- Address the need for sustainability
- Address the need for environmental justice/social equity
- Make transit more time competitive with the car

These transit-specific objectives also are consistent with the overall 2050 RTP goals and objectives. (The detailed set of performance measures was presented to the Transportation Committee at its April 16, 2010, meeting, and is available on the Web site at www.sandag.org/uats.)

Attachment 14 contains initial data comparing the performance of the three transit alternatives against the 2008 transit network and the baseline scenario described above. In order to isolate the performance of transit in each alternative, staff held constant the highway network and the land use assumptions of each transit network.3

Initial analysis shows that all three scenarios yield significantly better results than the existing (2008) transit network, and that all three scenarios result in modest to significant improvements in most performance measures when compared against the baseline scenario. The baseline scenario places the region at an aggressive starting point for comparison purposes, given the high level of transit investment included in the 2030 RTP. The overall concept was to test three varying strategies for expanding the role of transit in the region beyond that outlined in the current RTP.

In summary, the initial analysis shows that while none of the scenarios performs the best in all of the categories, the Many Centers scenario appears to have the highest overall performance, although it also requires the highest level of capital and operating cost support. That being said, the analysis shows that there are effective features in the Transit Propensity, Commuter Point-to-Point, and Many Centers alternatives that could be incorporated into a combined strategy. As a result, there appears to be an opportunity to combine the most effective features of all three scenarios into a “Hybrid” alternative that could then be further evaluated and refined as cost estimates and revenue assumptions become available. More detail on the “Hybrid” approach is contained in Item 3B of this report.

3 All transit network alternatives hold the highway networks and land use assumptions constant. The highway network for each alternative consists of the highway network included in the 2030 RTP and the land use assumptions are those assumed in the 2050 Regional Growth Forecast.
**Next Steps**

Based on discussion today on both Items 3A and 3B of this report, staff will return to the Board of Directors in July with a report on the transit mode share performance for the geographic areas and with a refined list of transit projects for possible incorporation into the 2050 Unconstrained Transit Network.

GARY L. GALLEGOS  
Executive Director

**Attachments:**  
1. Transit Propensity Subway-Style Map  
2. Commuter Point-to-Point Subway-Style Map  
3. Many Centers Subway-Style Map  
4. Draft Initial Transit Concepts  
5. Study Area for Urban Area Transit Strategy  
6. Sampling of Comments on the UATS from 2050 RTP Public Workshops  
7. Peer Review Panel Biographies  
8. Peer Review Panel Global Observations  
9. Peer Review Panel Individual Perspectives  
10. Executive Summary of Lessons Learned from Peer Regions Report  
11. Major Travel Corridors and Areas for Use in Identifying Initial Transit Mode Share Goals  
12. Proposed Transit Mode Share Goal Ranges for Identified Corridors and Areas  
13. Peak-Period, Home-to-Work Transit Mode Share Maps  
   a. 2008 Transit Mode Share  
   b. 2030 RTP Transit Mode Share (with 2050 Land Uses)  
   c. 2050 Proposed Transit Mode Share Goal Ranges  
14. Initial Performance of Transit Network Alternatives

**Key Staff Contacts:** Carolina Gregor, (619) 699-1989, cgr@sandag.org  
Dave Schumacher, (619) 699-6906, dsc@sandag.org

Funds are budgeted in Work Element #81003
Transit Propensity
Expanding Transit in the Most Urbanized Areas

Legend
- High Speed Rail
- COASTER Rail
- Light Rail Transit
- Bus Rapid Transit
- Rapid Bus
- Streetcar/Shuttle-Circulator
- High Frequency Local Bus Services
Commuter Point-to-Point
Emphasizing Quick Access to Work

Legend
- High Speed Rail
- COASTER Rail
- Light Rail Transit
- Bus Rapid Transit
- Peak Bus Rapid Transit Commuter
- Rapid Bus
- Streetcar/Shuttle-Circulator
- High Frequency Local Bus Services
Many Centers
Connects Smart Growth Areas and Activity Centers

Legend
- High Speed Rail
- COASTER Rail
- Light Rail Transit
- Bus Rapid Transit
- Peak Bus Rapid Transit Commuter
- Rapid Bus
- Streetcar/Shuttle-Circulator
- High Frequency Local Bus Services
Draft Initial Transit Concepts

Transit Propensity:

Expands Transit in the Most Urbanized Areas

Builds on the San Diego region’s innovative trolley system - expands transit in the central core and in the region’s most urbanized areas, many of which are characterized by pre-World War II street grid patterns. Provides very frequent transit services, alleviating riders from schedules and allowing easy transfers. Major investments may include streetcars, grade separations, priority treatments, transit nodes, expanded light rail, enhanced bike and walk access, and improvements to the public realm.

Commuter Point-to-Point:

Emphasizes Quick Access to Work

Transit to work is an easy option - leverages new dedicated transit facilities and flexible use of Managed Lanes to serve work trips. A system of few transfers provides high speed, reliable commute options during peak periods with a variety of “last-mile” treatments. Major investments may include Managed Lanes with in-line stations, park and ride lots, new fixed guideways, and some rail expansion.

Many Centers:

Connects Local Smart Growth Areas and Activity Centers

Supports the San Diego region’s local commitments to smart growth - consists of a multi-radial transit system serving the region’s larger-scale smart growth areas and major activity centers. Transit services are oriented toward the centers, and supported with frequent connections between the centers. Major investments may include a variety of transit priority treatments between centers, expanded light rail, enhanced transit centers, shuttles and streetcars connecting to the transit centers, enhanced bike and walk access, and improvements to the urban realm.
Sampling of Comments on the Urban Area Transit Strategy from 2050 RTP Public Workshops

- Strong support for more bike projects, more bike racks on buses and trolleys, and related connections to transit stations;
- Suggestions on transit line extensions in particular areas (e.g., streetcar from Park Blvd. to I-805 along University Avenue; light rail to North County; streetcar along Monroe Avenue);
- Observation that places with great transit systems (e.g., London, Paris, Sydney, Moscow, San Francisco) have underground stations and lines;
- Support for extension of the planned high speed rail system to the international U.S./Mexico border;
- Support for building an extensive transit system ("build it and they will come" notion);
- Concern over the lack of funding for transit services and the related suggestion to be less ambitious in the transit planning process;
- Need for more real-time information at transit stations;
- Encouragement for the use of smaller buses to increase efficiency;
- Preference for the "Many Centers" alternative;
- Support for priority measures to bypass areas with traffic congestion and improve travel times;
- Concern about future mobility for seniors and the need to plan ahead to meet their needs for "aging in place;"
- Encouragement for expanding sidewalks and planting street trees to make walking and biking more pleasant, particularly at transit stations;
- Appreciation for the Spanish translation at the workshops.
John M. Inglish – General Manager/CEO, Utah Transit Authority (UTA)

John Inglish has worked in the transportation industry for more than 35 years. With an engineering background, Mr. Inglish began his career in 1970 as a systems planning engineer for the Utah State Highway Department. In the early 1970s he began working for the Wasatch Front Regional council on the early initiatives that formed today’s UTA. In 1977, he became the director of Transit Development for UTA, and in August 1997, the UTA Board of Trustees appointed Mr. Inglish as the general manager for the Authority. Under his leadership, UTA has garnered national and worldwide recognition for its transportation systems. He oversaw funding and construction of the $312.5 million Sandy to Salt Lake TRAX light rail line, completing the 15-mile TRAX line one year ahead of schedule and under budget, as well as the $118.5 million University TRAX light rail line connecting downtown Salt Lake City and the University of Utah in time for the 2002 Winter Olympics.

Martin Tuttle – Deputy Director, Planning and Modal Programs for the California Department of Transportation

Martin Tuttle has more than 25 years of top transportation and innovative land use planning management experience at the local, regional and state levels of government. As Deputy Director of Planning and Modal Programs at Caltrans, Mr. Tuttle is responsible for the Caltrans Divisions of Local Assistance, Mass Transportation, Planning, Rail, Aeronautics and Transportation System Information. As the executive director of the Sacramento Area Council of Governments (SACOG), he launched its nationally-recognized “Blueprint” transportation and land use growth plan. Mr. Tuttle also has served as the executive director of the Solano Transportation Authority (STA). As a top staff member to Assembly Majority Leader Tom Hannigan in the California State Legislature for 13 years, Mr. Tuttle managed innovative land-use and transportation reform legislation, including the bill establishing the successful Capitol Corridor intercity rail service between Sacramento and San Jose. Prior to joining Caltrans, he oversaw transit oriented development and urban infill housing projects for URS Corporation and New Faze Development.

George Hazel – Chairman, MRC McLean Hazel Ltd

George Hazel has extensive experience in all aspects of transport and communications, both urban and rural. He has specific expertise in strategic planning and policy development, the integration of transportation with other related areas, the prioritization of projects with respect to economic, environmental, and social objectives, and innovative funding of transportation infrastructure around the world. He has studied all forms of transportation policy around the world, including congestion charging and demand management, mode shift, goods movement, and growth management. Mr. Hazel has worked in the public, private, and academic sectors at a senior level and has acted as advisor to the Academy of Sustainable Communities, the Commission for Integrated Transport, Transport for London, the Queensland State Government, the Greater Toronto and Hamilton Region, the City of San Diego and many government agencies around the United Kingdom. Currently an honorary professor at the Robert Gordon University and adjunct professor at the Queensland University of Technology, Mr. Hazel has published a book on Making Cities Work and presents at conferences around the world.

Aidan Hughes – Principal, Arup

Aidan Hughes is the leader of Arup’s planning practice in the US, which focuses on integrated urbanism and sustainable planning and design. Mr. Hughes brings over 20 years experience and a proven track record in the management of complex multi-disciplinary projects. He consults to municipal governments, transportation agencies, and developers, and is currently leading the sustainable redevelopment of the Concord Naval Weapons Station in Concord, CA. A major part of the redevelopment program is compliance with California AB 32 (global warming act) and evaluating and mitigating carbon emissions from transportation, energy, and other sources for each redevelopment alternative. He also is involved in the Treasure Island Sustainability Planning project in San Francisco. Mr. Hughes is a USGBC LEED Accredited Professional, has worked in Europe, Asia and the United States, and has a broad understanding of the global approaches to delivering successful planning and infrastructure projects.
Peer Review Panel’s Global Observations

The Peer Review Panel convened in San Diego from April 19 – 21, 2010, to review and assess the work completed to date on the Urban Area Transit Strategy in relation to the preparation of the broader 2050 Regional Transportation Plan (RTP). In addition to the Panel’s comments on the three alternative transit networks summarized in the staff report, the Panel also made a number of more global observations, as follows.

- **Economic Competitiveness**: Transportation is seen as the major driver of regions’ economic competitiveness, and an increased focus on developing public transit systems is seen as a key factor in cities around the world for meeting mobility needs that ensure long-term economic sustainability.

- **Technological Savviness**: All over the world, technology is increasingly being used to market transportation options and other services to individuals based on user-preferences. Integrated electronic cards, such as the Octopus Card in Hong Kong and the Oyster Card in England, are providing tremendous potential to the private sector for marketing goods and services to end users; to the public sector for tailoring, directing, and providing incentives for transit/transportation services to end users; and for users who receive incentives and discounts for many kinds of products and services based on established purchasing choices. Global technology firms are actively seeking opportunities to develop markets. The Compass Card in the San Diego region is a solid start, and the region should proactively work to expand the Compass Card services beyond transportation to provide users with more convenience and incentives, and to maximize the region’s ability to direct future transportation marketing decisions.

- **World Class Region**: The San Diego region has true potential of becoming a world class region. The focus of the Urban Area Transit Strategy should shift from developing a “world class transit system” to developing a “transportation system that supports a world class region and its local communities.”

- **Sustainability and Co-Benefits**: In addition to pursuing transit as a means to help meet the Senate Bill 375 (SB 375) (Steinberg, 2008) regulatory mandates to reduce greenhouse gas emissions, transit also can help provide alternative transportation options, reduce foreign energy dependency, improve air quality, and reduce the proportion of American budgets spent on transportation. In addition, any co-benefits from smart growth development patterns and integrated transit systems should be highlighted and promoted, including internal trip capture, increased walking and biking, and carbon reductions in energy, waste, and water resulting from green building programs.

- **Land Use Development around Transit Stations**: Land use developers around the world recognize the economic potential for redevelopment around transit stations. Increasingly, the public sector is participating more directly with the private sector in the planning, design, and implementation of these types of redevelopment projects that result in more transit-oriented uses and direct economic benefits to the public sector that can then be invested back into transit infrastructure development. The Panel cited the proposed Tecolote Road, Clairemont Drive, and Balboa Avenue station sites along the Mid-Coast light-rail transit alignment as prime examples where such public/private partnerships could be forged. Additionally, the Panel
expressed concern over the proposed Genesee Avenue alignment in the University City area, where an elevated trackway and station are currently proposed in order to minimize impacts on auto traffic. The Panel felt that the added costs of grade-separation versus an at-grade alignment may not be justified given the benefit that would accrue to the overall transportation system with the addition of the Mid-Coast project. They emphasized the importance of having transit facilities at the ground level as a means to better integrate into the surrounding community rather than forcing a separation from vehicle traffic as a traditional method of addressing congestion.

- **Land Use, Freeways, and Parking**: Land use density, design, and mix are essential components of a successful urban fabric and transit system. Locations that have limited parking and freeway expansions, and have simultaneously added an array of transit services, have increased the overall performance of their transit systems and have increased transit mode share. The Panel felt that SANDAG should more directly reward communities that currently have high land use densities near transit stations, and should more directly influence land development in areas that currently have regional transit services. In addition, the Panel encouraged SANDAG to work more directly with the development community to build higher-density projects at stations, and to evaluate the allocation of affordable housing through the Regional Housing Needs Assessment process. In addition, the Panel expressed concerns that the region’s Managed Lanes could be counterproductive toward transit if not properly implemented and operated, and suggested that SANDAG should monitor transit productivity as the Managed Lanes and Bus Rapid Transit (BRT) systems are implemented.

- **Project Prioritization**: The process to prioritize the funding of transportation projects needs to be easily understood by policymakers and the public, and needs to be conducted through a transparent process. A “policy audit table” example was provided. The audit helps to bridge the gap between the goals and objectives included in policy documents and the proposed transportation projects to help identify which transportation projects align with which policies, and alternatively which policies may not be addressed by any transportation projects.

- **Leadership and Champions**: Places that have successful transit systems have had strong leaders and champions to promote transit. Increasingly, bicycle and pedestrian advocates are supporting transit when they see opportunities for enhancements between the various modes. All successful transit systems need proactive and well-informed champions.

- **Dedicated Funding Sources**: Obtaining dedicated funding sources for transit is critical. In some cases, placing initiatives on the ballot solely for transit (versus for additional transportation modes and/or for other services) has culminated in success. (Within this context, the Panel recognized the difficulty of reaching California’s two-thirds voter approval threshold for new special taxes.) The Panel also noted the potential of exploring a subregional funding approach in San Diego as an innovative concept that should be pursued.
AIDAN HUGHES – PRINCIPAL, ARUP

Strengths
1. SANDAG has a strong relationship with the two transit operators and has good relationships with the Cities. This allows you to establish bold visions and work together to deliver on the vision. A more fractured relationship can get mired in delay and compromise.

2. SANDAG and the two operators have a very capable and experienced staff complemented with strong and committed leadership at the political and executive level. This translates into an ambition for leadership – learning from global best practice and seeking innovation in delivery and operation.

3. The existing system is operating successfully with strong farebox recovery and good coverage in the core areas. Much of the backbone system is in place through the LRT, Coaster and Sprinter systems linked into regional and international transport networks. While from the “inside” there is a recognition of some of the operational difficulties (for example, operating the trolley in the downtown), the public perception appears to be very positive. This establishes a strong platform for getting acceptance of system expansion and support for raising new capital. This also brings a responsibility to continue to deliver high quality service with clear benefits for riders as new projects are delivered.

Weaknesses
1. The Smart Growth plan is valuable as a comprehensive tool and it is being used appropriately as the basis for the transit networks. However, it is a bottom-up plan (the best the Cities are prepared to do right now) and it is not directly related to the availability of transit. There is an opportunity for SANDAG to take a lead in punching up the Smart Growth plan by using the carrot of transit investment to encourage Smart(er) Growth. Where there are proposed transit investments, they should be directly linked to some “threshold” metrics for smart growth.

2. The discussion we had around elevated light rail was interesting. It points to a fundamental issue that will face all projects, namely whether a case can (or should) be made to give transit priority in terms of road space at the expense of the auto. A greater commitment should be made to support trade-offs in favor of transit – case studies around the nation and world have demonstrated that this can be achieved with little downside. The upside is an ability to increase ridership, demonstrate the benefits of transit and make more complete communities with transit at its core. In many ways, this philosophical change in emphasis will be the platform for the world class community vision.

3. As we noted “parking is a big issue” and it is interesting that you have experience of the negative consequences in relation to parking for the downtown ballpark. We didn’t have time to address parking in all its complexities as part of the peer review, but parking policies should be dealt with as essential complementary measures to support successful transit.

GEORGE HAZEL – CHAIRMAN, MRC MCLEAN HAZEL LTD

Strengths
1. Enthusiasm, understanding, and competence of the team.
2. History of what you’ve done to date to build on.
3. In general, an exciting plan to deliver in a potentially world class city – you’re not there yet!

Weaknesses
1. Attitudes to not inconveniencing cars - unless you sort this out and the leadership backs and understands that it is the city's and the car drivers’ best interests to have a world class transit system and give it top priority and road space, then you will find it very difficult. Discussion on elevated section of Mid-Coast is a key example.

2. Governance needs to be sorted - too many agencies saying different things and doing different things.

3. I worry about managed lanes as a transit policy, specifically that they could be counterproductive toward the performance of transit. I would suggest experimenting with peak time express transit service or local off-peak service and monitor the results.

In addition you should really look at the potential of Intelligent Commuting Technology (ICT) and the Transport Retail Model, building on the Compass Card you have, and also the potential regarding capturing increased land value to fund transit.
EXECUTIVE SUMMARY

With the preparation of the 2050 Regional Transportation Plan (RTP), the San Diego Association of Governments (SANDAG) is seeking a new and innovative vision for transit that will result in a more significant role for transit in addressing the region’s mobility, land use, and sustainability goals. To help guide development of a new transit strategy, a review has been conducted of other regions that have successful transit systems, relatively high levels of transit use, and unique transit services or facilities. These areas offer examples of how transit has been applied successfully, and provide a point of reference or a standard from which comparisons can be made.

Three regions that might be considered “benchmark” cities for San Diego were researched in some detail. These cities are:

- Portland, Oregon
- Sydney, Australia
- Vancouver BC, Canada

Seven additional “comparison cities” are highlighted because they have characteristics similar to San Diego or provide examples of unique transit applications that have helped raise the profile of transit in their regions. These cities are:

- Brisbane, Australia
- Bordeaux, France
- Denver, Colorado
- Los Angeles, California
- Melbourne, Australia
- Minneapolis, Minnesota
- Seattle, Washington

Appendix A contains comparative data for U.S. cities to help provide a point of reference for San Diego.

Overarching Themes and Considerations for San Diego

Several overarching themes emerged from the benchmark and comparison cities evaluation, many of which may be appropriate for consideration as SANDAG develops the 2050 Transit Strategy. The overarching themes found as part of the case study review are presented on the left side of the following table and their potential applicability to San Diego is presented on the right.
<table>
<thead>
<tr>
<th>Overarching Theme</th>
<th>Considerations for San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td>The “success” of transit did not happen overnight.</td>
<td>San Diego embarked on an innovative new transit strategy in the early 1980s with the opening of the region’s (and nation’s) first urban rail transit line since WWII from downtown San Diego to the International Border. Over the next 25 years, the region expanded the rail network to provide a backbone transit infrastructure and service network, to one that now includes 75 miles of light rail (San Diego Trolley and Sprinter) and 40 miles of commuter rail (Coaster). Between 1975 and 2005, transit ridership increased 150 percent while regional population increased approximately 75 percent. As the original regional rail program nears completion (the 11-mile Mid-Coast corridor between Old Town and University City is the only remaining rail extension in the Regional Transportation Plan), the regional transit strategy has shifted to a multi-modal, shared right-of-way approach (transit on managed lanes and arterial streets). Looking to the experiences of the case study regions, San Diego may need to develop a new “dramatic strategy” for transit for the next 30-40 years – one that combines past, present, and future strategies to recapture the transit momentum experienced in the 1980s. The new strategy will need to include a stronger connection between transit investment and land use policies to achieve SANDAG’s vision for a larger transit mode share in the urban core, and key corridors and communities.</td>
</tr>
<tr>
<td>Transit success depends on regional plans and visions that guide the integration of land use and transportation.</td>
<td>SANDAG’s Regional Comprehensive Plan and Smart Growth strategy have established a hierarchy of centers that are designed to be supported by transit, as well as policies for integrating land use and transportation. Development of a new regional transit strategy should draw heavily on the policies and goals in the Regional Comprehensive Plan for both the region and specific corridors/communities. To achieve success, agencies, transit providers, and stakeholders must work together towards agreed upon transit and land-use goals.</td>
</tr>
</tbody>
</table>

Transit success depends on regional plans and visions that guide the integration of land use and transportation.

Many regional plans create a hierarchy of centers focused around transit that provide good design, sufficient density, and a land use mix that supports non-auto access to transit. Success is also dependent on a number of agencies working collaboratively to achieve the success of the regional plans and visions.
<table>
<thead>
<tr>
<th>Overarching Theme</th>
<th>Considerations for San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regions use a variety of tools to achieve transit success.</strong></td>
<td>SANDAG and the region already have a variety of policy tools to support transit as defined in the Regional Comprehensive Plan and Smart Growth strategy. Additional policies and tools found in the peer regions/cities that promote and support existing and future transit services for consideration by SANDAG include: improvements to the pedestrian environment, urban growth boundaries, cooperative agreements between public agencies and private developers, tax incentives to foster transit oriented development, parking maximums or limitations, and legislation requiring commute trip reductions by major employers.</td>
</tr>
<tr>
<td><strong>Regions generally experienced a shift in policy and investment toward transit over the past few decades.</strong></td>
<td>The San Diego region is also experiencing similar pressures to contain sprawl, protect the environment, promote livable communities, and maintain and improve the quality of life. Through the Regional Comprehensive Plan, the San Diego region has made the policy connection between investments in transit and achieving these goals. Looking toward the future, new transit policies and strategies designed to increase transit mode share will need to understand the effects of regional highway investments and policies on the potential success of the transit investments and system.</td>
</tr>
<tr>
<td><strong>Local bus networks are essential for successful transit systems to provide efficient connections and access to the backbone system.</strong></td>
<td>San Diego’s existing transit network leans toward hub-and-spoke structure with feeder buses connecting to rail based transit centers. However, many trips rely solely on bus transit. A new transit strategy will need to build off the existing rail transit investment, while also considering how best to serve key travel markets (origins/destinations, work trips, etc.) that may not be well served by existing bus/rail connections. The strategy will also need to define the role of local and feeder bus service in relation to the major transit infrastructure investments.</td>
</tr>
</tbody>
</table>

Local bus networks are essential for successful transit systems to provide efficient connections and access to the backbone system.

To efficiently support higher frequency transit stations, feeder services are essential components of the transit system and, depending on the local geography, are often structured along grids or hub-and-spoke networks.
<table>
<thead>
<tr>
<th>Overarching Theme</th>
<th>Considerations for San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parking requirements in transit-supportive communities are reduced.</strong></td>
<td>Abundant and inexpensive parking have proven to be key deterrents to transit use. A new transit strategy for the San Diego region should evaluate how parking policies (location, availability, and cost), particularly in the city center and urban core, impact transit use.</td>
</tr>
<tr>
<td>Most transit successful regions have coordinated parking policy with land use and transit policy. Parking strategies often differ between central and outlying areas.</td>
<td></td>
</tr>
<tr>
<td><strong>Successful transit systems include a variety of transit modes.</strong></td>
<td>All regions include a combination of transit facility and service applications to create their transit networks and systems.</td>
</tr>
<tr>
<td>Cities and regions with successful transit have systems that include combinations of transit modes applied for the particular conditions, objectives and circumstances (i.e., heavy rail, commuter rail, light rail, bus rapid transit, rapid bus, local bus, streetcar, shuttles, electric bus, etc.)</td>
<td></td>
</tr>
<tr>
<td><strong>Unique applications of transit have occurred in the central cities.</strong></td>
<td>Even cities with similar transit histories and land use characteristics as San Diego have invested heavily in innovative transit facilities and services in their central cities (transit malls, streetcars, underground bus terminals, fare free zones). These investments have proven highly successful in generating transit ridership, supporting the regional transit network, achieving land use objectives, increasing transit mode share, and contributing to the vitality of their downtown core. Many of these strategies may have applicability to downtown San Diego and other key activity centers.</td>
</tr>
<tr>
<td>While all of the studied regions have a wide range of transit modes that provide area- and location-appropriate transit, these cities have also incorporated special applications of transit infrastructure, services, and policies in their downtowns in ways that raise the profile of transit, promote transit use, and support higher density environments.</td>
<td></td>
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</tbody>
</table>
Major Travel Corridors and Areas for Use in Identifying Initial Mode Share Goals

- Major Travel Corridor
- Major Employment Area
- High Activity Area
### Proposed Transit Mode Share Goal Ranges for Identified Corridors and Areas and Supporting Data

#### Peak-Period, Home-to-Work Trips

<table>
<thead>
<tr>
<th>Identified Corridors/Areas</th>
<th>Baseline Data</th>
<th>Supporting Data</th>
<th>Proposed Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008 Existing Transit</td>
<td>2030 RTP With 2050 Land Uses</td>
<td>25% Increase Over 2030 RTP</td>
</tr>
<tr>
<td><strong>Major Employment Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown San Diego</td>
<td>24%</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>University City</td>
<td>3%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>Sorrento Mesa</td>
<td>2%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Kearny Mesa</td>
<td>2%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Otay Mesa/Otay Ranch</td>
<td>3%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Palomar Airport</td>
<td>2%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td><strong>High Activity Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Core</td>
<td>12%</td>
<td>16%</td>
<td>20%</td>
</tr>
<tr>
<td>Oceanside/Escondido Corridor</td>
<td>3%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Other Urbanized Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North I-15 Corridor</td>
<td>1%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>North Central Coastal Area</td>
<td>2%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Central Coastal Area</td>
<td>5%</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>Coastal South Bay</td>
<td>8%</td>
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</tr>
<tr>
<td>East County/EI Cajon</td>
<td>4%</td>
<td>8%</td>
<td>10%</td>
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<tr>
<td>East County/Santee</td>
<td>3%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Urban Area Transit Strategy Study Area</strong></td>
<td>5%</td>
<td>9%</td>
<td>11%</td>
</tr>
</tbody>
</table>

1. Values represent peak period home-to-work trip transit mode-share for destination districts.
2. Values reflect projected mode share of either the currently adopted 2030 Reasonably Expected RTP or the 2030 Unconstrained RTP, whichever is higher, combined with 2050 land uses.
Values represent peak period home-to-work transit mode share for destination districts.
Values represent peak period home-to-work transit mode share for destination districts.
Values represent peak period home-to-work transit mode share for destination districts.
Urban Area Transit Strategy - Initial Performance of Transit Network Alternatives

Key:  ● Most Effective  ○ Middle  ○ Least Effective  □ No Significant Change

A. Mode Share

<table>
<thead>
<tr>
<th>Mode Share Measures</th>
<th>2008 Existing</th>
<th>Baseline¹</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Peak-Period Transit Mode Share as Applied to the Identified Corridors/Areas</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A2. All-Day Transit Mode Share as Applied to the Identified Corridors/Areas</td>
<td></td>
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<tr>
<td>A3. Change in Peak Period Urban Area Transit Mode Share</td>
<td></td>
<td></td>
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B. Transit Ridership

<table>
<thead>
<tr>
<th>Ridership Measures</th>
<th>2008 Existing</th>
<th>Baseline</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. Change in Transit Person Trips (Regional)</td>
<td>202,000</td>
<td>401,000</td>
<td>○</td>
<td>○</td>
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<tr>
<td>B2. Change in Transit Passenger Miles (Regional)</td>
<td>1,593,000</td>
<td>5,197,000</td>
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<tr>
<td>B3. Change in Transit Peak-Period Person Trips (Regional)</td>
<td>79,000</td>
<td>178,000</td>
<td>○●</td>
<td>●</td>
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<tr>
<td>B4. Change in Mode of Access to Transit (Non-Motorized and Auto)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Walk/Bike to Transit</td>
<td>85.4%</td>
<td>89.8%</td>
<td></td>
<td>■</td>
<td>□</td>
</tr>
<tr>
<td>Auto (drove and driven) to Transit</td>
<td>14.6%</td>
<td>10.2%</td>
<td>●</td>
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C. Cost-Effectiveness

<table>
<thead>
<tr>
<th>Cost-Effectiveness Measures</th>
<th>2008 Existing</th>
<th>Baseline ¹</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
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</thead>
<tbody>
<tr>
<td>C1. Rough Order of Magnitude (ROM) Capital Cost Estimate</td>
<td></td>
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<td></td>
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<tr>
<td>C2. Cost-Effectiveness of Network (Region)</td>
<td></td>
<td></td>
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<tr>
<td>C3. Operating Subsidy Required (Region)</td>
<td></td>
<td></td>
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<tr>
<td>C4. Total Transit System Capital Cost vs. SANDAG Revenue-Constrained Funding Scenario</td>
<td></td>
<td></td>
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<tr>
<td>C5. Ability to Phase Major System Components/Elements</td>
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D. Efficient Transportation Network

<table>
<thead>
<tr>
<th>Efficiency Measures</th>
<th>2008 Existing</th>
<th>Baseline</th>
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<th>Commuter Point-to-Point</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Transit System Performance</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>D1. Passenger Miles to Transit Seat Mile Ratio</td>
<td>36%</td>
<td>47%</td>
<td>○●</td>
<td>●</td>
<td>○</td>
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<tr>
<td>Regional Transportation System Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2. Change in Auto Vehicle Miles Traveled (VMT) per capita</td>
<td>26.9</td>
<td>26.9</td>
<td>○</td>
<td>□</td>
<td>□</td>
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<tr>
<td>D3. Change in Auto Vehicle Hours Traveled (VHT) per capita</td>
<td>0.7</td>
<td>0.8</td>
<td>○</td>
<td>□</td>
<td>□</td>
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<tr>
<td>D4. Change in Auto Vehicle Trips per capita</td>
<td>3.6</td>
<td>3.5</td>
<td>□</td>
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¹Baseline scenario consists of an overlay between the highway and transit networks included in the 2030 RTP and the land use assumptions included in the 2050 Regional Growth Forecast.
## Urban Area Transit Strategy - Initial Performance of Transit Network Alternatives

### E. Sustainability

<table>
<thead>
<tr>
<th>Sustainability Measures</th>
<th>2008 Existing</th>
<th>Baseline</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greenhouse Gas Reduction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>E1. Estimated Change in GHG (tentative)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E2. Peak-Period Non-Motorized Mode Share in Urban Area</td>
<td>3.7%</td>
<td>3.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E3. All-Day Non-Motorized Mode Share in Urban Area</td>
<td>3.4%</td>
<td>3.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E4. Compatibility with Regional Bike Plan (mi. of bike fac. within 1/2 mile of major station)</td>
<td>73</td>
<td>146</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Land-Use/Transportation Connection</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>E5a. % of Jobs within 1/2 Mile of Major Transit Stations</td>
<td>21.1%</td>
<td>38.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E5b. % of Jobs within 1/4 Mile of Major Transit Stations</td>
<td>10.7%</td>
<td>21.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E6a. % of Housing Units within 1/2 Mile of Major Transit Stations</td>
<td>9.4%</td>
<td>31.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E6b. % of Housing Units w/in 1/2 Mile of Major Transit Stations with 10 Minute or Better Service</td>
<td>0.0%</td>
<td>23.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E6c. % of Housing Units w/in 1/2 Mile of Major Transit Stations with 15 Minute or Better Service</td>
<td>7.3%</td>
<td>30.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E7. Compatibility with current Regional Activity Centers (Hospitals, Universities/Colleges, Shopping Malls, and Tourist Attractions within 1/2 Mile of Major Transit Stations)</td>
<td>17</td>
<td>40</td>
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</table>

### F. Social Equity/Environmental Justice

<table>
<thead>
<tr>
<th>Social Equity/Environmental Justice Measures</th>
<th>2008 Existing</th>
<th>Baseline</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title VI Requirements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1a. % Minority Populations within 1/2 Mile of Major Transit Stations (% Improvement)</td>
<td>11.2%</td>
<td>34.4%</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>F1b. % Non-Minority Populations within 1/2 Mile of Major Transit Stations (% Improvement)</td>
<td>7.0%</td>
<td>20.2%</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>F1c. % Low-Income Households within 1/2 Mile of Major Transit Stations (% Improvement)</td>
<td>13.2%</td>
<td>41.4%</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>F1d. % Non-Low-Income Households within 1/2 Mile of Major Transit Stations (% Improvement)</td>
<td>9.2%</td>
<td>18.0%</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Other Meaningful Social Equity/Environmental Justice Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2a. % of 75+ Population within 1/4 Mile of Major Transit Stations</td>
<td>3.0%</td>
<td>12.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2b. % of 75+ Population within 1/4 Mile of All Stations</td>
<td>54.8%</td>
<td>58.7%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F3. % Zero-Car Households within 1/2 Mile of Major Transit Stations (2000 census data)</td>
<td>16.7%</td>
<td>43.9%</td>
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<td></td>
</tr>
</tbody>
</table>

2 Title VI requires analysis of the burdens of regional transportation system investments on low-income and minority populations. Measures in this category evaluate the comparative percent improvement between low-income and non-low-income populations and minority and non-minority populations.

Key: A "1" indicates disparate impact and a "2" indicates no disparate impact.
## G. Time-Competitiveness

<table>
<thead>
<tr>
<th>Time Competitiveness Measures</th>
<th>2008 Existing</th>
<th>Baseline</th>
<th>Transit Propensity</th>
<th>Commuter Point-to-Point</th>
<th>Many Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G1. Oceanside - Downtown San Diego Travel Times (in Minutes)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOV</td>
<td>55</td>
<td>81</td>
<td></td>
<td></td>
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<tr>
<td>Carpool</td>
<td>53</td>
<td>52</td>
<td></td>
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<tr>
<td>Transit - Walk Access</td>
<td>104</td>
<td>85</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Transit - Drive Access</td>
<td>93</td>
<td>77</td>
<td></td>
<td></td>
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<tr>
<td><strong>G2. Escondido - Downtown San Diego Travel Times (in Minutes)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SOV</td>
<td>48</td>
<td>75</td>
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<td></td>
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<tr>
<td>Carpool</td>
<td>45</td>
<td>49</td>
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<tr>
<td>Transit - Walk Access</td>
<td>78</td>
<td>70</td>
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<tr>
<td>Transit - Drive Access</td>
<td>78</td>
<td>66</td>
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<tr>
<td><strong>G3. El Cajon - Downtown San Diego Travel Times (in Minutes)</strong></td>
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</tr>
<tr>
<td>SOV</td>
<td>32</td>
<td>46</td>
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<td></td>
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<tr>
<td>Carpool</td>
<td>32</td>
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<tr>
<td>Transit - Walk Access</td>
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<td>72</td>
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<td>Transit - Drive Access</td>
<td>62</td>
<td>58</td>
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<tr>
<td><strong>G4. Mid City San Diego - Sorrento Valley Travel Times (in Minutes)</strong></td>
<td></td>
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</tr>
<tr>
<td>SOV</td>
<td>31</td>
<td>49</td>
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<tr>
<td>Carpool</td>
<td>30</td>
<td>27</td>
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<tr>
<td>Transit - Walk Access</td>
<td>89</td>
<td>41</td>
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<tr>
<td>Transit - Drive Access</td>
<td>82</td>
<td>42</td>
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<tr>
<td><strong>G5. Chula Vista - Sorrento Valley Travel Times (in Minutes)</strong></td>
<td></td>
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<tr>
<td>SOV</td>
<td>41</td>
<td>69</td>
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<td>Carpool</td>
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<td>31</td>
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<tr>
<td>Transit - Walk Access</td>
<td>136</td>
<td>68</td>
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<td>Transit - Drive Access</td>
<td>120</td>
<td>54</td>
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<td><strong>G6. San Ysidro - Downtown San Diego Travel Times (in Minutes)</strong></td>
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<tr>
<td>SOV</td>
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<td>Transit - Walk Access</td>
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<td>Transit - Drive Access</td>
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<tr>
<td><strong>G7. El Cajon - Sorrento Valley Travel Times (in Minutes)</strong></td>
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<td>Transit - Walk Access</td>
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<tr>
<td>Transit - Drive Access</td>
<td>111</td>
<td>64</td>
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2050 REGIONAL TRANSPORTATION PLAN: DEVELOPMENT OF THE INITIAL UNCONSTRAINED TRANSPORTATION NETWORK

Introduction

During April and May, staff presented the Urban Area Transit Strategy alternative transit networks to the Transportation and Regional Planning Committees, various SANDAG working groups, and at the 2050 Regional Transportation Plan (RTP) public workshops for public input. The networks also were reviewed by an outside Peer Review Panel. Based on feedback received so far, staff has assembled initial recommendations for a preferred 2050 transit network based on the initial three alternatives evaluated as part of the Urban Area Transit Strategy. This transit network, highway improvements, and other management strategies form the basis for the initial 2050 Unconstrained Transportation Network.

Board members are asked to discuss and provide feedback on the initial Unconstrained Transportation Network. Recommendations for a preferred Unconstrained Transportation Network will be presented at the July 2010 Board meeting for further discussion and use in the development of the Draft 2050 RTP.

2050 RTP Transportation Network Scenarios

In developing the 2050 RTP, the Unconstrained Transportation Network represents the region’s vision for reasonable transit, highway, and arterial improvements and operations to meet travel demand in 2050. Defining the Unconstrained Network is an important step in developing an updated RTP, because it establishes the broadest multimodal network from which revenue constrained network scenarios will be developed.

Once the Unconstrained Network is defined, staff will prioritize all of the future projects in this network, using the updated transportation project evaluation criteria (see Agenda Item No. 4). Based on revenue projections, various Revenue Constrained transportation network scenarios will be developed using this prioritized project list and other factors. The Revenue Constrained network scenarios will attempt to build and operate as much of the Unconstrained Network as possible, given revenue availability and flexibility, and project priorities. These scenarios will be evaluated using performance measures leading to the eventual selection of a preferred Revenue Constrained Network by the Board of Directors.

As previously discussed with the Board, Senate Bill 375 (Steinberg, 2008) (SB 375) requires that the 2050 RTP include a Sustainable Communities Strategy (SCS) as a new element, in addition to the traditional policy, action, and financial elements. The 2010 Regional Transportation Plan Guidelines adopted by the California Transportation Commission on April 7, 2010, establish that the RTP must
be an “internally consistent” document (i.e., all four elements of the RTP must be consistent with one another). As a result, transportation investments and the forecasted development pattern in the SCS should be complementary and not contradictory.

Federal regulations require that the RTP be financially constrained and include a financial plan that demonstrates how the adopted transportation plan can be implemented [Title 23 CFR Part 450.322(f) (10)]. The financial plan must demonstrate that projects included in the RTP can be implemented using committed, available, or reasonably available revenue sources (Title 23 CFR Part 450.104). Therefore, to achieve consistency among all RTP elements, the SCS must be developed to match the financially (or revenue) constrained plan. The 2050 RTP Environmental Impact Report (EIR) will analyze the Revenue Constrained plan as the Proposed Project. Project alternatives also will be analyzed in the EIR.

Discussion

Initial Recommendations for a 2050 Unconstrained Transit Network

The Urban Area Transit Strategy will serve as the basis for development of the regional transit network to be included in the 2050 RTP. Through the planning process, staff has developed and begun testing three transit network alternatives with a focus on the urban areas of the San Diego region with the ultimate goal of incorporating one of the networks (or a combination or variation of the networks) into the 2050 RTP Unconstrained Network. The Urban Area is illustrated in Attachment 1.

As discussed in Agenda Item No. 3A, the transit alternatives under study were grouped into three themes: Transit Propensity” (expanding transit in the most urbanized areas); “Commuter Point-to-Point” (emphasizing quick access to work); and “Many Centers” (connecting local smart growth areas and activity centers).

Based on feedback from the 2050 RTP public workshops, the Peer Review Panel, the performance analysis, and the public, staff recommends combining the best overall transit system strategies contained in all three alternatives as the focus for developing and testing a preferred RTP unconstrained transit network. This strategy focuses on developing a strong link between transit and transit-supportive land use patterns, a link that will ensure that future investments made in transit are maximized in terms of cost-effectiveness. Based on this approach, staff recommends developing a Hybrid strategy based on the following key points:

- Improve the current transit network in communities that already have strong transit/land use integration (e.g., Mid-City, coastal South Bay communities, etc.). Improvements would focus on establishing 10-minute, all-day frequencies on most local routes, developing Rapid Bus services along major arterial corridors, and adding new light rail service to better serve high-demand corridors. Streetcar and/or other shuttle/circulator services also would help improve intra-community circulation within smart growth centers (e.g., downtown San Diego, downtown Escondido, downtown El Cajon, etc.). This strategy would incorporate much of Transit Propensity alternative.

- Expand high-frequency local and Rapid Bus services into the largest-scale smart-growth areas that are emerging or planned in the near-term as suggested by the Many Centers alternative. These concentrations of future transit-friendly land uses help justify significant investments in transit infrastructure and services.
• Interconnect the existing, most highly-urbanized areas and future smart growth centers to major employment areas with a system of high-speed, high-frequency rail and Bus Rapid Transit lines that will facilitate easy and convenient access across the region. Using findings from the evaluation of the Commuter Point-to-Point alternative, the addition of selected peak commuter bus services that offer one-seat rides/competitive travel would facilitate access to key regional employment centers.

• Emphasize improvements to the pedestrian environment in and around rail and bus station areas to maximize convenient and safe walking access to transit, and also create interconnections between transit and the Regional Bike Plan as a means to facilitate access to transit stations from areas outside a walking distance and create new last-mile solutions.

These actions, taken together, could serve as a good starting point for the overall strategy for developing the long-range vision for the transit plan that will ultimately be incorporated into the 2050 RTP. The Transportation and Regional Planning Committees are discussing the proposed “Hybrid” approach at their joint meeting on June 4, 2010, and any comments made will be provided verbally at the June 11 Board Policy meeting. A draft list of transit projects for the 2050 Hybrid Unconstrained Transit Network is included as Attachment 2a. (Attachment 2b provides definitions of transit services and facilities for the Urban Area Transit Strategy for reference purposes.)

**Initial Recommendations for a 2050 Unconstrained Highway Network**

Similarly to the process being proposed for the transit network, SANDAG and Caltrans staffs are analyzing potential modifications to the 2030 RTP Unconstrained highway network. These modifications are based on supporting proposed transit investments in key corridors and communities while providing an adequate level of service for the overall transportation system. It is important to note that the 2030 RTP Unconstrained highway network includes an extensive Managed Lanes system that provides tremendous flexibility in serving transit and high occupancy vehicles (HOVs) by maximizing the available rights-of-way in several of the region’s major highway corridors. The goal in reviewing the highway network is to build upon this existing plan by integrating the revised transit network into it, thereby creating the most efficient and balanced transportation system.

Potential modifications include additional operational improvements to relieve bottlenecks, refinements of the HOV and Managed Lane network to support transit services, and adjustments to general purpose lane widening beyond what is included in the 2030 Reasonably Expected RTP for corridors that are projected to operate at acceptable levels of service. A map of the initial 2050 Unconstrained Highway Network is included as Attachment 3.
**Next Steps**

Based on discussion today, the initial Unconstrained Transportation Network will be presented to the working groups for discussion and feedback. Recommendations for a preferred Unconstrained Transportation Network will be presented at the July 2010 Board meeting for further discussion and use in the development of the Draft 2050 RTP.

---

GARY L. GALLEGOS  
Executive Director

**Attachments:**  
1. Study Area for Urban Area Transit Strategy  
2a. Initial List of Transit Projects for the 2050 Hybrid Unconstrained Transit Network  
2b. Definitions of Transit Services and Facilities for Urban Area Transit Strategy  
3. Map of Initial 2050 Unconstrained Highway Network

**Key Staff Contacts:** Carolina Gregor, (619) 699-1989, cgr@sandag.org  
Dave Schumacher, (619) 699-6906, dsc@sandag.org  
Heather Werdick, (619) 699-6967, hwe@sandag.org

Funds are budgeted in Work Elements #31003 and 31005
Initial List of Transit Projects for the 2050 Hybrid Unconstrained Transit Network

An initial list of transit projects to be included in the 2050 Hybrid Unconstrained Transit Network is proposed below. (Definitions of transit services are included in Attachment 2b as a reference.) This initial list builds upon transit services currently in operation today and on planned transit services currently included in the 2030 Reasonably Expected Regional Transportation Plan (RTP).

Based on results of upcoming model runs to test the performance of these transit projects, staff will propose modifications to the mix of projects and adjustments to the levels of service in order to maximize the cost-effectiveness for the unconstrained transit network that will eventually be incorporated into the 2050 Regional Transportation Plan.

Ultimately, the selected transit network will be accompanied by a series of policy recommendations that may enhance the performance of the networks. The policy recommendations may address issues such as urban design, parking, street connectivity, bike and pedestrian access, transit awareness and education, last mile solutions, etc. During the planning process, staff will conduct a series of sensitivity tests that may provide supplemental information on the effectiveness of any potential policies that could be considered in the planning process.

**Local Bus Services**

Within the Urban Area Transit Strategy study area, service frequencies on most existing local bus services would be increased to 10 minutes or better throughout the day to serve short-distance trip-making and provide connections to regional Rapid Bus, Bus Rapid Transit, and Rail services. Additional local bus services within the study area would include:

- Solana Beach-Carmel Valley-University City
- Carmel Valley-Pacific Highlands Ranch-Sabre Springs
- Mira Mesa-Scripps Ranch North-South Poway Industrial Park

Outside the study area, a basic level of local bus service (30-60 minute service throughout most of the day) would be provided to connect key communities to the urban areas, including:

- Fallbrook
- Valley Center
- Ramona
- Alpine
- Tribal nations

**Rapid Bus Services**

A network of limited-stop Rapid Bus services would operate in key travel corridors as overlay services to local bus services to serve medium-distance tripmaking, including:

- Oceanside-University City via Coast Highway corridor
- Oceanside-Vista via Mission Avenue corridor
- Camp Pendleton-Mira Costa College-Plaza Camino Real
Bus Rapid Transit Services

All day bus rapid transit services would operate in key freeway/transit guideway corridors to serve long-distance regional tripmaking, including:

- Escondido-North I-15 communities, Kearny Mesa, Mission Valley, Downtown
- Otay Mesa-Otay Ranch-Chula Vista-National City-Downtown
- San Ysidro-Chula Vista-National City-Downtown-Old Town-University City

Peak-period commuter bus services would operate in key freeway/transitway corridors to provide point-to-point connections/one-seat ride service between key residential areas and regional employment centers, including:

- Escondido and north I-15 communities to Downtown
- Oceanside-Carlsbad-Encinitas to Sorrento Mesa
- Otay Ranch-Chula Vista to University City/Sorrento Mesa
- Southeastern San Diego communities-Mid-City to University City/Sorrento Mesa
- El Cajon-Santee to Kearny Mesa/University City/Sorrento Mesa
- Santee-El Cajon-Spring Valley to Eastern Urban Center/Otay Mesa
- Inland South Bay-Southeastern San Diego communities/Mid-City to Escondido/Palomar Airport Road corridor

Commuter and Light Rail Services

Double tracking of the COASTER would allow 15 minute peak/60 minute off-peak bi-directional service, while double tracking the Sprinter corridor would allow 10 minute all day service, along with express/limited stop service between Oceanside and Escondido.

A commuter rail overlay service on the proposed California High Speed Rail system would facilitate commuter travel needs between the Temecula-Escondido I-15 corridor and south county job centers.
Additional light rail services would operate in the following corridors:

- University City-Mira Mesa via Mira Mesa Boulevard
- University City-Kearny Mesa-Mission Valley-Mid-City-Southeastern San Diego communities-National City-Chula Vista via I-805 and I-15
- Downtown-SDSU via Park Blvd/El Cajon Boulevard
- Pacific Beach-Kearny Mesa-Mission Valley-SDSU-El Cajon via Balboa Avenue/Green Line

**Streetcar/Shuttle-Circulator Services**

Several streetcar and/or bus shuttle/circulator services would operate in key community center areas to facilitate both intra-area tripmaking and first-last mile connections to regional transit services.

- Downtown areas in San Diego, Oceanside, Escondido, El Cajon, National City, Chula Vista
- Community centers in University City/Sorrento Mesa, Kearny Mesa, Mission Valley, Hillcrest/North Park, Eastern Urban Center (Chula Vista)
# Definitions of Transit Services and Facilities
## For Urban Area Transit Strategy

### High-Speed Rail:
- **France's TGV**
- **Spain's AVE**
- **California High-Speed Rail**

- Designed for very high-speed long-distance intercity trips with long station spacing and dedicated grade-separated lines. Examples include the Shinkansen in Japan, the TGV in France, and the AVE in Spain. California High-Speed Rail (HSR) is currently being planned from Sacramento to San Diego.
  - Vehicles are steel wheel on steel track electrically-powered bidirectional train sets.
  - Top Speed: 220 miles per hour (mph), but 150 mph maximum expected from San Diego to Escondido and 200 mph maximum from Escondido to Riverside.
  - Level boarding.
  - Passenger Capacity: Not yet determined in CA. Examples from around the world range from approximately 300 to 1,300 per train but most single level trains have about 400-500.
  - Operates on dedicated high speed track with no at-grade crossings.
  - California HSR system will be over 600 miles.

### Commuter Rail:
- **San Diego Coaster**
- **Southern California MetroLink**

- Designed for higher-speed, longer-distance regional trips with stations spacing every four to five miles on average. Examples include the San Diego COASTER, Dallas/Fort Worth Trinity Railway Express, and Southern California Metrolink.
  - Commuter rail lines use diesel or electric locomotives (diesel are more common and are used in Southern California).
  - Typical speed: 80 mph.
  - Typically low floor.
  - Supported by Park and Ride lots.
  - Typical passenger capacity: 130 seats per car operating with 3-8 car trains (typically no standees).
  - Operates on a dedicated right-of-way separate from other vehicles.
  - Typical length of line: 25-100 miles.
### Light Rail Transit (LRT):

**San Diego Trolley**
- Designed for medium-distance trips with station spacing about every mile on average. Examples include the San Diego Trolley, the San Diego SPRINTER, Portland MAX, Minneapolis Hiawatha Line, and Houston MetroRail.
  - Electric or diesel-powered rail vehicles.
  - Typical speed: corridor speed limit, generally not exceeding 55 mph.
  - Designed for high-capacity corridors.
  - Integrates well with street traffic, signals, and pedestrians.
  - Operates on a dedicated guideway within separate right-of-way or on-street.
  - Typical passenger capacity: 60-140 seated plus standees (per car), with 1-4 cars.
  - Typical length of line: 6-25 miles.
  - Typically low floor.

**San Diego Sprinter**

### Streetcar/Shuttle-Circulator:

**Portland Modern Streetcar**
- Designed for short-distance trips with station spacing every few blocks or every quarter-mile on average. Streetcar examples include Portland Modern Streetcar, Seattle Streetcar, and San Francisco Historic Streetcar. Shuttle-circulators include MTS Shuttle, University City SuperLoop.
  - Typical speed: speeds up to the speed limit of the street they operate on, generally averaging 12 mph (with stops).
  - Designed for dense urban areas, such as downtown areas.
  - Integrates well with street traffic, signals, and pedestrians.
  - Streetcars operate either in mixed-traffic with automobiles or on a dedicated right-of-way.
  - Typical passenger capacity for streetcars: up to 100 seated and standees per car (vehicles generally provide few seats due to short distance nature of trips). Operate as single vehicles.
  - Typical passenger capacity for shuttles-circulators: up to 20-25 seated, depending upon vehicle size.
  - Typical length of line: 2-6 miles.
Bus Rapid Transit (BRT):

San Diego I-15 BRT

Los Angeles Orange Line

Designed for longer-distance, higher-speed, regional trip-making on a dedicated bus guideway or freeway Managed Lanes/High-Occupancy Vehicle (HOV) facilities. All-day, all-stop trunk BRT services can be complemented with peak-period commuter express services designed to provide very limited stop connections to major employment centers. Examples include San Diego Interstate 15 BRT, Los Angeles Orange Line, Eugene, Oregon EmX, and the Brisbane South-East Busway.

• Diesel or CNG/alternative fuels standard.
• Typical speed: corridor speed limit, typically 40-60 mph on average.
• Supported by Park and Ride lots.
• Designed for high-capacity corridors.
• Low floor design.
• Operates on dedicated guideway and sometimes in mixed-traffic with automobiles.
• Typical passenger capacity: 50-60 seated plus standees on arterial routes, 50-80 seated on freeway routes (per bus).
• Typical length of line: 8-15 miles on arterial segments, 10-30 miles on freeway segments.
• Typical station spacing: 0.5-1 mile on arterial segments, 4-5 miles on freeway segments.

Continued on next page...
Rapid Bus:

Provides higher-speed alternatives to local bus services in high volume arterial corridors and utilizes a range of lower-capital cost signal priority treatments, short segments of transit-only lanes, and limited station stops to achieve faster travel times. Rapid Bus services can be upgraded to BRT over time through implementation of dedicated transit lanes to bypass congested arterial segments. Examples include Los Angeles Metro Rapid and Boston Washington Street Silver Line.

- Diesel or CNG/alternative fuels standard.
- Typical speed: speeds up to the speed limit of the street they operate on, averaging about 25 mph (with stops).
- Low floor design.
- Designed for high-capacity corridors.
- Integrates well with street traffic, signals, and pedestrians.
- Typical passenger capacity: 40 seated plus standees (per bus).
- Typical length of line: 8-15 miles.
- Typical station spacing: 0.5-1 mile.

High-Frequency Local Bus:

Facilitates mid-to-short-distance trip-making within local communities, with closer station spacing. Local bus services serve as the backbone of the transit system and provide the primary access into local communities where fixed-route services are warranted.

- Typically standard and single articulated buses.
- Typical speed: speeds up to the speed limit of the street they operate on, averaging 12 mph (with stops).
- Low-floor design.
- Integrates well with street traffic, signals, and pedestrians.
- Operates in mixed-traffic with automobiles, but can benefit from transit-signal priority and queue jump lanes.
- Typical passenger capacity: 37-57 seated plus standees (per bus).
- Typical length of line: ranges from under 5 miles up to 25 miles.
- Typical station spacing: 1-4 blocks.
Introduction

In March 2009, SANDAG commenced the Comprehensive Freight Gateway Study (Gateway Study). The Gateway Study was initiated to provide a forecast of regional freight traffic in San Diego and Imperial Counties through 2050. The primary objective of the Gateway Study is to give SANDAG, the Imperial County Transportation Commission (ICTC), and other regional stakeholders, access to timely and thorough freight flow information as an estimation tool to better plan and manage a sustainable freight network. Now that the Gateway Study is complete, staff is moving forward with updating the Goods Movement Strategy for 2050 (2050 GMS). The 2050 GMS will utilize the Gateway Study and freight stakeholder input to propose freight projects, which will be evaluated and prioritized for inclusion in the 2050 Regional Transportation Plan (RTP).

An Ad Hoc Freight Stakeholders Group was formed to provide input on the development of the 2050 GMS, including feedback on evaluation criteria and related goods movement planning activities. The Ad Hoc Freight Stakeholders Group is composed of members representing the Port of San Diego and Port users, San Diego County Regional Airport Authority, shippers and carriers using the airport, San Diego and Arizona Eastern Railway, Burlington North Santa Fe Railroad, regional truckers, warehouse operators, San Diego Regional and Otay Mesa Chambers of Commerce, the San Diego World Trade Center, Caltrans, and others interested in efficient goods movement in the San Diego region. Additionally, two members from the Cities/County Transportation Advisory Committee (CTAC), representing the public works directors in the San Diego region, were appointed to participate on the Ad Hoc Freight Stakeholders Group.

The proposed evaluation criteria developed for goods movement projects will be used to rank freight projects by mode, including Maritime (seaport related), Land Port of Entry (border related), Rail and Intermodal Facilities, Truck/Roadway, and Airport projects that facilitate goods movement and integrate the region’s freight network. The ranked projects will be used to develop prioritized lists of goods movement projects by mode to be incorporated into the 2050 RTP. In addition to the ranked projects, pipeline projects and projects that are on the Mexican side of the border will be listed as “projects of interest” but not evaluated nor ranked for funding.
Discussion

Goods Movement Project Evaluation Criteria – Focus Areas

The evaluation criteria for the 2050 GMS follow the overall policy goals established by the Board of Directors for the 2050 RTP. The evaluation criteria also consider the two overarching themes for the 2050 RTP: Quality of Travel & Livability, and Sustainability. The goods movement project evaluation criteria are grouped into three focus areas, as follows:

- Serves Freight System Needs
- Develops Freight Network Integration
- Addresses Sustainability

Staff worked with the Ad Hoc Freight Stakeholders Group to develop scores and weights for the individual criteria included under each of the three focus areas at their March 10 and April 1, 2010, meetings. The proposed evaluation criteria and the weightings are provided in Attachment 1.

On April 16, 2010, the Transportation Committee recommended that the goods movement project evaluation criteria be accepted by the Board of Directors for use in the 2050 GMS. The Board approved the goods movement project evaluation criteria at its June 11, 2010, meeting.


Key Staff Contact: Christina Casgar, (619) 699-1982, cca@sandag.org
San Diego Association of Governments
TRANSPORTATION COMMITTEE

April 16, 2010

AGENDA ITEM NO.: 7B

Action Requested: RECOMMEND

2050 REGIONAL TRANSPORTATION PLAN: EVALUATION CRITERIA FOR THE GOODS MOVEMENT STRATEGY

Introduction

In March 2009, SANDAG commenced the Comprehensive Freight Gateway Study (Gateway Study). The Gateway Study was initiated to provide a forecast of regional freight traffic in San Diego and Imperial Counties through 2050. The primary objective of the Gateway Study is to give SANDAG, the Imperial County Transportation Commission (ICTC), and other regional stakeholders access to timely and thorough freight flow information as an estimation tool to better plan and manage a sustainable freight network. Now that the Gateway Study is complete, staff is moving forward with updating the Goods Movement Strategy for 2050 (2050 GMS). The 2050 GMS will utilize the Gateway Study and freight stakeholder input to propose freight projects, which will be evaluated and prioritized for inclusion in the 2050 Regional Transportation Plan (RTP).

An Ad Hoc Freight Stakeholders Group was formed to provide input on the development of the 2050 GMS to include feedback on evaluation criteria, and related goods movement planning activities. The Ad Hoc Freight Stakeholders Group is comprised of members representing the Port of San Diego and Port users, San Diego County Regional Airport Authority, and shippers and carriers using the airport, San Diego and Arizona Eastern Railway, Burlington North Santa Fe Railroad, regional truckers, warehouse operators, San Diego and Otay Mesa Chambers of Commerce, San Diego World Trade Center, California Department of Transportation, and others interested in efficient goods movement in the San Diego region. Additionally, two members from the Cities/County Transportation Advisory Committee (CTAC), representing the Public Works Directors in the San Diego region, were appointed to participate on the Ad Hoc Freight Stakeholders Group.

The proposed evaluation criteria developed for goods movement projects will be used to rank freight projects by mode, including maritime (seaport related), land port of entry (border related), rail and intermodal facilities, truck/roadway, and airport projects that facilitate goods movement and integrate the region’s freight network. The ranked projects will be used to develop prioritized lists of goods movement projects by mode to be incorporated into the 2050 RTP. In addition to the ranked projects, pipeline projects and projects that are on the Mexican side of the border will be listed as “projects of interest” but not evaluated or ranked for funding.

Recommendation

The Transportation Committee is asked to recommend that the Board of Directors approve the 2050 San Diego Regional Goods Movement Strategy Project Evaluation Criteria in substantially the same form as attached to this report.


Discussion

Goods Movement Project Evaluation Criteria – Focus Areas

The evaluation criteria for the 2050 GMS follow the overall policy goals established by the Board of Directors for the 2050 RTP. The evaluation criteria also consider the two overarching themes for the 2050 RTP: Quality of Travel & Livability, and Sustainability. The goods movement project evaluation criteria are grouped into three focus areas, as follows:

- Serves Freight System Needs
- Develops Freight Network Integration
- Addresses Sustainability

The Serves Freight System Needs and Develops Network Integration focus areas generally correspond to the Quality of Travel & Livability theme while Addresses Sustainability is linked to the Three “Es” (Social Equity, Healthy Environment, and Prosperous Economy).

The 2030 Goods Movement Action Plan (2030 GMAP) included both the Serves Freight System Needs and Develops Freight Network Integration focus areas. Both of these focus areas represent the majority of the existing evaluation criteria that have been refined for the 2050 GMS. The Safety and Sustainability focus areas were added to account for new criteria and to incorporate the Cost-Effectiveness focus area from the 2030 GMAP.

Goods Movement Project Evaluation Criteria - Weightings

Staff worked with the Ad Hoc Freight Stakeholder Group to develop scores and weights for the individual criteria included under each of the three focus areas at their March 10 and April 1 meetings.

Changes to the evaluation criteria weightings from the 2030 GMAP were driven by the addition of the Sustainability focus area. Additionally the evaluation criteria weightings were adapted for each individual mode to account for significant differences in scale between modes. The evaluation criteria and weightings are included in Attachment 1.

Next Steps

Pending the recommendation from the Transportation Committee, the goods movement project evaluation criteria for the 2050 RTP will be presented to the Board of Directors for approval at its April 23, 2010, meeting.

CHARLES “MUGGS” STOLL
Director of Land Use and Transportation Planning


Key Staff Contact: Christina Casgar, (619) 699-1982, cca@sandag.org
## 2050 San Diego Regional Goods Movement Strategy
### Proposed Freight Project Evaluation Criteria

<table>
<thead>
<tr>
<th>FOCUS AREA</th>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SERVES FREIGHT SYSTEM NEEDS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Throughput</td>
<td>How much additional freight can be accommodated by the project?</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Relieves Freight System Bottlenecks/Capacity Constraints</td>
<td>Does the project improve average travel time for freight?</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>and Reduces Delay</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improves freight system and/or modal safety</td>
<td>Does the project accommodate features that enhance safety and/or enhance national security?</td>
<td>5</td>
</tr>
<tr>
<td><strong>DEVELOPS FREIGHT NETWORK INTEGRATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improves Freight System Management/Efficiency</td>
<td>Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity?</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Provides Critical Modal/Intermodal Link/Connectivity</td>
<td>Does the project integrate the local freight system?</td>
<td>10</td>
</tr>
<tr>
<td><strong>ADDRESSES SUSTAINABILITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost-Effectiveness (Project Lifecycle)</td>
<td>How does the project rank against others with respect to project cost/capacity? Does project have outside funding sources to leverage public funds?</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Minimizes Community Impacts; Improves Safety, Reduces Hazards</td>
<td>Does the project minimize/address community impacts?</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Minimizes Environmental/Habitat Impacts</td>
<td>Does the project minimize/address environmental/habitat impacts?</td>
<td>10</td>
</tr>
</tbody>
</table>
### 2050 Goods Movement Strategy: Proposed Maritime Project
#### Evaluation Criteria

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Throughput</td>
<td>How much additional freight volume can be accommodated by the project?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Up to 20</td>
<td>The project creates capacity for additional freight. Project awarded 0-20 points based on a proportional scaling system.</td>
</tr>
<tr>
<td>2. Relieves Freight System Bottlenecks/Capacity Constraints and Reduces Delay</td>
<td>Does the project improve average travel time for freight?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>The project reduces average idle time for trucks entering or exiting the port</td>
</tr>
<tr>
<td>10</td>
<td>Project improves velocity of a cargo unit in the Port or on a connecting road Project awarded points based on a proportional scaling system.</td>
</tr>
<tr>
<td>3. Improves Freight System and/or modal safety</td>
<td>Does the project accommodate features that enhance safety and/or enhance national security?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>2</td>
<td>Project increases movement of militarily significant cargo</td>
</tr>
<tr>
<td>3</td>
<td>Project provides a buffer between freight and non-freight modes of transportation</td>
</tr>
<tr>
<td>4. Improves Freight System Management/Efficiency</td>
<td>Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>Project facilitates information transmittal that improves network integration (i.e. advanced trucker information, improved signage or other information technology)</td>
</tr>
<tr>
<td>5. Provides Critical Modal/Intermodal Link/Connectivity</td>
<td>Does the project integrate the local freight system?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Up to 15</td>
<td>Project completes a regional link = 15 points Project improves a regional link = 10 points</td>
</tr>
<tr>
<td>CRITERIA</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>6. Cost-Effectiveness</strong>&lt;br&gt;(Project Lifecycle)</td>
<td>How does the project rank against others with respect to project capacity/cost?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>5</td>
<td>Increased capacity/total capital cost.*</td>
</tr>
<tr>
<td>5</td>
<td>Outside funding sources are available for project implementation</td>
</tr>
</tbody>
</table>

*Capacity= additional acreage, length of wharf, sq. ft of warehousing, additional lane miles

| **7. Minimizes Community Impacts/ Improves Safety/ Reduces Hazards** | Does project minimize/address community impacts? |
| **Score** | **Description** |
| 10 | Project provides a buffer between freight and residential development |

| **8. Minimizes impacts to Environment/Habitat** | Does the project minimize/address environmental/habitat impacts? |
| **Score** | **Description** |
| 5 | Project avoids natural or preserve areas |
| 5 | Project reduces externalities to include emissions related to idling, noise and/or visual impacts |
## 2050 Goods Movement Strategy: Proposed Rail and Intermodal Facilities

### Project Evaluation Criteria

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Throughput</td>
<td>How much additional freight can be accommodated by the project?</td>
</tr>
</tbody>
</table>

**Score** | **Description**  
---|---  
10 | Project provides capacity for additional carloads  
*Project awarded 0-20 points based on a proportional scaling system.*

| 2. Relieves Freight System Bottlenecks/Capacity Constraints and Reduces Delay | Does the project improve average travel time for freight? |

**Score** | **Description**  
---|---  
5 | Improves intermodal transfer time  
15 | Improves travel time.  
*Project awarded 0-15 points based on a proportional scaling system.*

| 3. Improves freight system and/or modal safety | Does the project accommodate features that enhance safety? |

**Score** | **Description**  
---|---  
5 | Project includes risk abatement features or safety enhancements such as grade separations

| 4. Improves Freight System Management/Efficiency | Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity? |

**Score** | **Description**  
---|---  
10 | Project facilitates information transmittal that improves network integration (i.e. variable message signs)

| 5. Provides Critical Modal/Intermodal Link/Connectivity | Does the project integrate the local freight system? |

**Score** | **Description**  
---|---  
Up to 15 | Project completes a regional link = 15 points  
Project improves a regional link = 10 points

| 6. Cost-Effectiveness (Project Lifecycle) | How does the project rank against others with respect to project capacity / cost? |

**Score** | **Description**  
---|---  
10 | Increased capacity/total capital cost.*  
5 | Outside funding sources are available for project implementation  
*Capacity = additional carloads

| 7. Minimizes Community Impacts/Improves Safety/Reduces Hazards | Does project minimize/address community impacts? |

**Score** | **Description**  
---|---  
10 | Project provides a buffer between freight and residential development
<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Minimizes impacts to Environment/Habitat</td>
<td>Does the project minimize/address environmental/habitat impacts?</td>
</tr>
<tr>
<td>Score</td>
<td>Description</td>
</tr>
<tr>
<td>5</td>
<td>Project avoids natural or preserve areas</td>
</tr>
<tr>
<td>5</td>
<td>Project reduces externalities to include emissions related to idling, noise and/or visual impacts</td>
</tr>
</tbody>
</table>
# 2050 Goods Movement Strategy: Proposed Land Ports of Entry

## Project Evaluation Criteria

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Throughput</strong></td>
<td>How much additional volume can be accommodated by the project?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>Up to 20</td>
<td>Project increases the amount of truck or rail units crossing border.</td>
</tr>
<tr>
<td></td>
<td>Project awarded 0-20 points based on a proportional scaling system.</td>
</tr>
<tr>
<td><strong>2. Relieves Freight System Bottlenecks/Capacity Constraints and Reduces Delay</strong></td>
<td>Does the project improve average travel time for freight?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>Up to 20</td>
<td>Project improves border wait times for commercial vehicles.</td>
</tr>
<tr>
<td></td>
<td>Project awarded 0-20 points based on a proportional scaling system.</td>
</tr>
<tr>
<td><strong>3. Improves freight system and/or modal safety</strong></td>
<td>Does the project accommodate features that enhance safety and/or enhance national security?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>3</td>
<td>Project incorporates features that enhance safety by buffering commercial trucks from non-freight modes of transportation and communities (i.e. is the project located in an area with a high vehicular crash rate)</td>
</tr>
<tr>
<td>2</td>
<td>Project incorporates features that enhance homeland security</td>
</tr>
<tr>
<td><strong>4. Improves Freight System Management/Efficiency</strong></td>
<td>Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>Project facilitates information transmittal, such as advanced traveler information, to improve border wait times.</td>
</tr>
<tr>
<td><strong>5. Provides Critical Modal/Intermodal Link/Connectivity</strong></td>
<td>Does the project integrate the local freight system?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>Up to 10</td>
<td>Project completes a regional link = 10 points</td>
</tr>
<tr>
<td></td>
<td>Project improves a regional link = 5 points</td>
</tr>
<tr>
<td><strong>6. Cost-Effectiveness (Project Lifecycle)</strong></td>
<td>How does the project rank against others with respect to project capacity/ cost?</td>
</tr>
<tr>
<td><strong>Score</strong> <strong>Description</strong></td>
<td><strong>Score</strong> <strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>Increased capacity/total capital cost.*</td>
</tr>
<tr>
<td>5</td>
<td>Outside funding sources are available for project implementation</td>
</tr>
<tr>
<td></td>
<td>*Capacity= additional lane miles or additional inspection booths at the POE</td>
</tr>
<tr>
<td>CRITERIA</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>7. Minimizes Community Impacts/ Improves Safety/ Reduces Hazards</td>
<td>Does project minimize/address community impacts?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>Project provides a buffer between freight and residential development</td>
</tr>
<tr>
<td>8. Minimizes impacts to Environment/Habitat</td>
<td>Does the project minimize/address environmental/habitat impacts?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>5</td>
<td>Project avoids natural or preserve areas</td>
</tr>
<tr>
<td>5</td>
<td>Project reduces externalities to include emissions related to idling, noise and/or visual impacts</td>
</tr>
</tbody>
</table>
## 2050 Goods Movement Strategy: Proposed Road/Truckway
### Project Evaluation Criteria

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Throughput</strong></td>
<td>How much additional freight can be accommodated by the project?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Up to 20</td>
<td>Change in trucks per lane mile (AADT)(^1)</td>
</tr>
</tbody>
</table>

| **2. Relieves Freight System Bottlenecks/Capacity Constraints and Reduces Delay** | Does the project improve average travel time for freight (by improving travel time for all vehicles)? |
| **Score** | **Description** |
| Up to 20 | What is the number of daily person-hours saved? |
| This criterion accounts for both current (2008) and 2050 congestion relief. |
| Total daily travel time is computed for a baseline condition that includes all current 2008 fully funded and/or environmentally cleared projects. Travel time is again computed by adding each project, one by one, to the baseline condition. The resulting travel time is then compared to the baseline travel time. The difference is the travel time savings that can be attributed to each project. Higher ranking projects have the largest number of person-hours saved. |
| To incorporate existing congestion, the level of service (LOS) on the existing network was analyzed. The LOS were grouped into categories of F, E-D, and C-A. The 2050 hours were then divided by a factor assigned to these three groups. F = 1, E-D = 1.5 and C-A = 2. |

| **3. Improves freight system and/or modal safety** | Does the project improve safety? |
| **Score** | **Description** |
| 5-4 | Regional percentage of crash rates that exceed the statewide average |
| 3-1 | Regional percentage of crash rates below the statewide average |

\(^1\) The score distribution and/or data may be subject to change depending upon the 2050 forecast data. |
<table>
<thead>
<tr>
<th>CRITERIA</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4. Improves Freight System Management/Efficiency</td>
<td>Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>10</td>
<td>Project facilitates information transmittal that improves network integration (i.e. advanced trucker information, improved signage or other information technology)</td>
</tr>
<tr>
<td>5. Provides Critical Modal/Intermodal Link/Connectivity</td>
<td>Does the project integrate the local freight system?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
</tbody>
</table>
| Up to 15 | Project completes a regional link = 15 points  
Project improves a regional link = 10 points |
| 6. Cost-Effectiveness (Project Lifecycle) | How does the project rank against others with respect to project capacity/cost? |
| **Score** | **Description** |
| 10 | Increased capacity/total capital cost.*  
5 | Outside funding sources are available for project implementation |
| *Capacity= additional lane miles |
| 7. Minimizes Community Impacts/Improves Safety/Reduces Hazards | Does project minimize/address community impacts? |
| **Score** | **Description** |
| 10 | Project provides a buffer between freight and residential development |
| 8. Minimizes impacts to Environment/Habitat | Does the project minimize/address environmental/habitat impacts? |
| **Score** | **Description** |
| 5 | Project avoids natural or preserve areas  
5 | Project reduces externalities to include emissions related to idling, noise and/or visual impacts |
## 2050 Goods Movement Strategy: Proposed Air Cargo Project Evaluation Criteria

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>1. Throughput</td>
<td>How much additional freight volume can be accommodated by the project?</td>
</tr>
<tr>
<td><strong>Score</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Up to 20</td>
<td>The project creates capacity for additional freight Project awarded 0-20 points based on a proportional scaling system.</td>
</tr>
</tbody>
</table>

| 2. Relieves Freight System Bottlenecks/Capacity Constraints and Reduces Delay | Does the project improve average travel time for freight? |
| **Score** | **Description** |
| 20 | Project improves velocity of a cargo unit in the airport or on a connecting road Project awarded 0-20 points based on a proportional scaling system. |

| 3. Improves freight system and/or modal safety | Does the project accommodate features that enhance safety and/or enhance national security? |
| **Score** | **Description** |
| 5 | Project provides a buffer between freight and non-freight modes of transportation |

| 4. Improves Freight System Management/Efficiency | Does the project include freight management systems, strategies, and/or technologies to improve efficiency, velocity? |
| **Score** | **Description** |
| 10 | Project facilitates information transmittal that improves network integration (i.e. advanced trucker information, improved signage or other information technology) |

| 5. Provides Critical Modal/Intermodal Link/Connectivity | Does the project integrate the local freight system? |
| **Score** | **Description** |
| Up to 15 | Project completes a link = 15 points Project improves a link = 10 points |

| 6. Cost-Effectiveness (Project Lifecycle) | How does the project rank against others with respect to project capacity/cost? |
| **Score** | **Description** |
| 10 | Increased capacity/total capital cost.* |
| 5 | Outside funding sources are available for project implementation |

*Capacity= additional lane miles
<table>
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<td>7. Minimizes Community Impacts/ Improves Safety/ Reduces Hazards</td>
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SANDAG Variable Rate Bonds

SANDAG Total Cost, Net of LIBOR Receipt Compared to Swap Payment and 30 Year Fixed Rate Bond Index

Date

Interest rate

SANDAG Total Cost, Net of LIBOR Receipt
Background on 2050 Regional Transportation Plan
2050 RTP Goals

- Reliability
- System Preservation & Safety
- Mobility
- Social Equity
- Prosperous Economy
- Healthy Environment
SB 375 Key Provisions

- Greenhouse gas targets
- Sustainable communities strategy
- Sensitive resource lands
- Regional housing needs assessment
- Public involvement
- California Environmental Quality Act
2050 RTP Process and Timeline

Fall 2009 | Spring 2010 | Summer 2010 | Fall 2010 | Early 2011

- Goals and Objectives
- 2050 Regional Growth Forecast
- 2050 RTP Process and Timeline
- Network Development - All Modes
- Plan Performance Measures
- Project Evaluation Criteria
- Ranked Projects by Category
- Revenue Projections
- Revenue Constrained/SCS Network Scenarios
- Revenue Constrained/SCS Preferred Network Scenario
- Draft 2050 RTP and EIR
- Unconstrained Network
- Apply Performance Measures
- Spring 2010
- Fall 2009
- Summer 2010
- Fall 2010
- Early 2011

Status Report on the Urban Area Transit Strategy
Goals
Initial Transit Concepts

Transit Propensity:
Expands transit in the most urbanized areas

Commuter Point-to-Point:
Emphasizes quick access to work

Many Centers:
Connects local smart growth areas and activity centers
Transit Mode Share Goals

2008

Transit Mode Share

Mode Share (%)
- Under 5%
- 5% to 9%
- 10% to 14%
- 15% to 19%
- 20% to 24%

2008 Transit Mode Share

2030

2030 RTP Transit Mode Share (with 2050 Land Uses)

Mode Share (%)
- Under 5%
- 5% to 9%
- 10% to 15%
- 15% to 24%
- 25% to 29%

2030 Proposed Transit Mode Share Goal Ranges

2050

Mode Share (%)
- Under 5%
- 5% to 10%
- 10% to 15%
- 15% to 20%
- 20% to 25%
- 25% to 30%
- Over 30%

2050 Proposed Transit Mode Share Goal Ranges
Performance of the Networks
Results

- All three scenarios yield significantly better results than existing transit network.
- All three scenarios yield improvements over baseline scenario.
- None of the scenarios performs best in all of the categories.
- Many Centers has highest overall performance but has highest capital and operating costs.
- Opportunity to incorporate most effective features of all three scenarios into a combined “Hybrid” strategy.
Development of the Initial Unconstrained Transportation Network
2050 RTP Transportation Network Scenarios

- Unconstrained network
- Alternative revenue constrained scenarios
- SCS based on revenue constrained scenario
2050 RTP Process and Timeline

<table>
<thead>
<tr>
<th>Fall 2009</th>
<th>Spring 2010</th>
<th>Summer 2010</th>
<th>Fall 2010</th>
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</tr>
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<tbody>
<tr>
<td><strong>Goals and Objectives</strong></td>
<td><strong>Project Evaluation Criteria</strong></td>
<td><strong>Network Development All Modes</strong></td>
<td><strong>Plan Performance Measures</strong></td>
<td><strong>Ranked Projects by Category</strong></td>
</tr>
<tr>
<td><strong>Revenue Constrained/SCS Preferred Network Scenarios</strong></td>
<td><strong>Unconstrained Network</strong></td>
<td><strong>Revenue Constrained/SCS Preferred Network Scenario</strong></td>
<td><strong>Draft 2050 RTP and EIR</strong></td>
<td><strong>Apply Performance Measures</strong></td>
</tr>
</tbody>
</table>
Initial 2050 Unconstrained Transit Network

- All three scenarios yield improvements over the existing transit network
- Opportunity to incorporate most effective features of all three scenarios into a combined “Hybrid” strategy
- Pedestrian and bike improvements
Transit Propensity Expanding Transit in the Most Urbanized Areas

Base Network

- High Speed Rail
- COASTER Rail
- Light Rail Transit
- Bus Rapid Transit
- Rapid Bus
- Streetcar/Shuttle-Circulator
- High Frequency Local Bus Services
Initial 2050 Unconstrained Transit Network

- High Speed Rail
- COASTER Rail
- Light Rail Transit
- Bus Rapid Transit
- Peak Bus Rapid Transit Commuter
- Rapid Bus
- Streetcar/Shuttle-Circulator
- High Frequency Local Bus Services
Initial 2050 Unconstrained Highway Network

- Potential modifications to the 2030 RTP unconstrained highway network
- Build upon existing plan to create an efficient and balanced system
  - Additional operational improvements
  - Refinements to the HOV/Managed Lane network and adjustments to general purpose lanes
Initial 2050 Unconstrained Highway Network
Next Steps

- Your comments on:
  - Initial transit network
  - Initial highway network
- Draft unconstrained network to SANDAG Board meeting on July 23, 2010
Our Region. Our Future.

2050 Regional Transportation Plan
Our Region.
Our Future.

2050 Regional Transportation Plan
2050 RTP Goals
2050 Goods Movement Strategy

Freight:
Moving goods to consumers

Transportation Infrastructure:
Road network, border crossings, airports, seaports, etc.

Economic Prosperity & Quality of Life:
Income growth, standard of living, air quality, etc.
Freight Projects Evaluation Criteria

- Maritime
- Rail/intermodal facilities
- Land Ports of Entry
- Road/truckway
- Air cargo
Focus Areas

- Serves freight system needs
- Develops freight network integration
- Addresses sustainability
Serves Freight System Needs

- Throughput
- Relieves freight system bottlenecks/capacity constraints and reduces delay
- Improves freight system and/or modal safety
Develops Freight Network Integration

- Improves freight system management/efficiency
- Provides critical modal/intermodal link/connectivity
Addresses Sustainability

- Cost-effectiveness
- Minimizes community impacts
- Minimizes environmental impacts
Our Region.

Our Future.

2050 Regional Transportation Plan