TRANSPORTATION COMMITTEE AGENDA

Friday, March 4, 2005
9 a.m. – 12 Noon
SANDAG Board Room
401 B Street, 7th Floor
San Diego, CA 92101-4231

AGENDA HIGHLIGHTS

• REVISIONS TO REGIONAL TRANSIT SERVICE PLANNING POLICY

• DRAFT REGIONAL SHORT RANGE TRANSIT PLAN

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Welcome to SANDAG. Members of the public may speak to the Transportation Committee on any item at the time the Committee is considering the item. Please complete a Speaker’s Slip which is located in the rear of the room and then present the slip to Committee staff. Also, members of the public are invited to address the Committee on any issue under the agenda item entitled Public Comments/Communications/Member Comments. Speakers are limited to three minutes. The Transportation Committee may take action on any item appearing on the agenda.

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TRANSPORTATION COMMITTEE
March 4, 2005

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**ITEM # 1: APPROVAL OF FEBRUARY 18, 2005 MEETING MINUTES**

**ITEM # 2: PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS**

Members of the public will have the opportunity to address the Transportation Committee on any issue within the jurisdiction of the Committee. Speakers are limited to three minutes each and shall reserve time by completing a “Request to Speak” form and giving it to the Clerk prior to speaking. Committee members also may provide information and announcements under this agenda item.

**CONSENT ITEMS**

**ITEM # 3: DRAFT AIR QUALITY CONFORMITY DETERMINATION FOR THE 2030 REGIONAL TRANSPORTATION PLAN AND 2004 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM** (Elisa Arias)

The U.S. Environmental Protection Agency (EPA) designated the San Diego region as nonattainment for the new 8-hour ozone standard effective June 15, 2004. In accordance with federal requirements, SANDAG is required to make a conformity determination for the 2030 Revenue Constrained Regional Transportation Plan (RTP). The Transportation Committee is asked to accept the draft air quality conformity analysis of the 2030 Revenue Constrained RTP for distribution for a 30-day public comment period and to recommend that the Board of Directors schedule a Public Hearing at its meeting on April 22, 2005.

**ITEM # 4: LOS ANGELES–SAN DIEGO–SAN LUIS OBISPO RAIL CORRIDOR AGENCY (LOSSAN) BOARD OF DIRECTORS MEETING REPORT** (Linda Culp)

The LOSSAN Rail Corridor Agency seeks to increase ridership, revenue, capacity, reliability, and safety on the coastal rail line from San Diego to Los Angeles to San Luis Obispo. Known as Amtrak’s Pacific Surfliner corridor, it is the second busiest intercity passenger rail corridor nationwide and Amtrak’s fastest growing. This report summarizes the actions from the LOSSAN Board’s meeting on February 9, 2004.

**ITEM # 5: REPROGRAMMING OF CAPITAL FUNDS/TRANSIT CAPITAL PROJECT BUDGET AMENDMENTS** (Pete D’Ablaing)

The Transportation Committee is requested to approve a MTS request to transfer monies between capital projects to fund high priority projects at Cesar Chavez Station and the Imperial Avenue Bus yard. The MTS Board of Directors authorized the transfer of $360,100.00 of surplus funding from completed projects and projects with projected surplus funding to the above mentioned projects that are now ready for construction.
CHAIR’S REPORT

REPORTS

+6. REVISIONS TO POLICY NO. 18: REGIONAL TRANSIT SERVICE PLANNING
   (Toni Bates) APPROVE

In Spring 2004, the Board adopted Policy No. 18: Regional Transit Service Planning that defined the process, roles, and responsibilities for transit service planning and implementation in the region. In February 2005, the Transportation Committee endorsed a revised process for transit service change public hearings and streamlining responsibilities for service planning and implementation. The Transportation Committee is asked to recommend that the SANDAG Board of Directors adopt revised Policy No. 18 that reflects the revised process and changes in responsibilities.

+7. DRAFT FY 2005-2009 REGIONAL SHORT RANGE TRANSIT PLAN
   (Toni Bates) ACCEPT

The Draft Regional Short Range Transit Plan (RSRTP) establishes the policy framework, including goals and objectives for transit services in the region, assesses the existing transit system, services and programs, and identifies and sets priorities for transit service improvements for implementation by MTS and NCTD. The RSRTP is updated annually and provides the short-term support for the Regional Transportation Plan and Regional Comprehensive Plan. The Transportation Committee is asked to accept the Draft FY 2005-2009 RSRTP for a 45-day public review period and schedule a public hearing on the for the April 15, 2005 Transportation Committee meeting.

8. UPCOMING MEETINGS

The next two Transportation Committee meetings are scheduled for Friday, March 18, 2005, and Friday, April 1, 2005.

9. ADJOURNMENT

+ next to an agenda item indicates an attachment
TRANSPORTATION COMMITTEE DISCUSSION AND ACTIONS
MEETING OF FEBRUARY 18, 2005

The meeting of the Transportation Committee was called to order by Chair Joe Kellejian (North County Coastal) at 9:04 a.m. See the attached attendance sheet for Transportation Committee member attendance.

1. APPROVAL OF MEETING MINUTES

Action: Upon a motion by Mayor Mary Sessom (San Diego Regional Airport Authority) and a second by Councilmember Jack Feller (North County Transit District [NCTD]), the Transportation Committee approved the minutes from the February 4, 2005, meeting. Mayor Art Madrid (East County) abstained from voting on the minutes.

2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

There were no public comments, communications, or member comments.

CONSENT ITEM (3)

3. TRANSPORTATION DEVELOPMENT ACT (TDA) CLAIM AMENDMENT FOR CITY OF CHULA VISTA (APPROVE)

The City of Chula Vista has requested an amendment to a TDA claim to use $63,500 from its unallocated TDA reserve to establish an operator performance-based retention incentive program. The Metropolitan Transit System (MTS) Board, at its January 27, 2005, meeting approved amending its TDA claim to reflect the request from the City of Chula Vista. The Transportation Committee is asked to approve the claim amendment.

Action: Upon a motion by Councilmember Judy Ritter (North County Inland) and a second by Councilmember Feller, the Transportation Committee approved Consent Item No. 3.
CHAIR’S REPORTS

4. VERBAL REPORT ON THE MTS COMPREHENSIVE OPERATIONAL ANALYSIS (COA) BLUE RIBBON COMMITTEE ACTIVITIES (INFORMATION/POSSIBLE ACTION)

Chair Kellejian stated that this item was placed on the agenda as a placeholder, but the Blue Ribbon Committee has yet to hold its first meeting; that will occur on March 4. He represents SANDAG and the Transportation Committee on this Blue Ribbon Committee.

Public Comment:

Steve Alcove, President of the Amalgamated Transit Union (ATU), said that he had been reelected as the representative for San Diego Transit Corporation’s (SDTC’s) bus drivers’ union. He thanked the Transportation Committee for allowing labor to be a participant on the Blue Ribbon Committee.

5. VERBAL REPORT ON THE MTS COMPREHENSIVE OPERATIONS ANALYSIS (COA) TECHNICAL COMMITTEE ACTIVITIES (INFORMATION)

Toni Bates, Division Director of Transit Planning, stated that the intent of this report is to inform the Committee that staff plans to provide a monthly COA status report. When the Blue Ribbon Committee does start meeting, Chair Kellejian will bring the Transportation Committee up-to-date on those meetings. SANDAG staff will be participating on the COA Technical Committee. This technical committee has started to identify efficiencies to provide some operating cost savings for the FY 2006 year. At the end of March, there will be some public open houses to review the recommended proposals that will have been previously reviewed by the Blue Ribbon Committee. She reviewed the public hearing dates.

Paul Jablonski, MTS Chief Executive Officer, stated that it is exciting to see for the first time the various people involved on the technical side, both operations and planning, to brainstorm the system and come up with what we hope will be some very productive interim steps.

Councilmember Phil Monroe (South County) expressed some confusion about the COA Technical Committee beginning its work before the Blue Ribbon Committee has met. Ms. Bates replied that the work of the technical committee is to identify the easiest places to find efficiencies, and doing some field work and assessments. This will provide guidance for the Blue Ribbon Committee moving forward.

Councilmember Monroe asked that Mr. Jablonski and Ms. Bates talk with him following the meeting to discuss this issue further.

Chair Kellejian noted that a previous Transportation Committee meeting item on this subject had contained a schedule of milestones. He asked that this information be distributed to the Committee. (Note: Agenda item No. 5 from the January 7, 2005, Transportation Committee meeting was distributed to the members later in the meeting.)
6. TRANSIT OPERATING REVENUE ESTIMATES AND ALLOCATIONS (RECOMMEND)

Sookyung Kim, Program Coordinator, reported that operators receive funds from various federal, state, and local revenues for ongoing operations and major capital projects. This report provides information on the apportionments for the upcoming fiscal year (2006) and the projection of revenues for FY 2007-2010 for each fund type. There are four major sources of funding for transit: Transportation Development Act (TDA), State Transit Assistance (STA), federal formula funds (Section 5307 and Section 5309), and TransNet. Ms. Kim explained each of these sources and amounts for the next fiscal year and for FY 2007-2010.

Councilmember Monroe asked about the legislative priorities for the TDA program. Ms. Kim referred him to the first box on Table 1 in the agenda report.

Ms. Kim stated that in the original TransNet program, of the one-third transit share, up to 40 percent of the revenues could be used for operating and non-rail capital purposes. For FY 06, $236 million in revenues is estimated for the entire program, and $77.7 million is available for transit capital and operating purposes, which is a 4.5 percent increase from the estimated FY 2005 revenues.

The distribution for the TransNet Extension is slightly different from the original measure. Monies are taken off the top for administration, the Independent Taxpayers Oversight Committee (ITOC), and for bike/pedestrian uses, then the major transit corridors receive 42.4 percent, new bus rapid transit (BRT)/rail operations receive 8.1 percent, local system improvements receives 33 percent, and Transit System Improvements/Operations receive 16.5 percent. Within the 16.5 percent for Transit System Improvements/Operations are costs associated with providing services to seniors and the disabled, which are deducted off the top. The remaining balance is for operations, miscellaneous capital, and regional transit priorities.

Ms. Kim stated that the TransNet Ordinance specifically states that transit’s share of the program be allocated by population, the extension ordinance does not provide for how to allocate the funds. The intent of the ordinance was to pool all regional resources and provide transit services based on need. However, in keeping with the spirit of Senate Bill (SB) 1703 to provide historic funding levels, staff is recommending that the revenues be divided to provide for the current levels of operation and miscellaneous capital projects similar to the current program. The excess revenues would be used to implement regional transit priorities as identified in the regional Short-Range Transit Plan (SRTP), adopted by the SANDAG Board.

Ms. Kim described the two Federal Transit Administration (FTA) formula funds: Section 5307 is the Urbanized Area program at $49 million and Section 5309 is the Fixed Guideway Rail Modernization program at $12.5 million. There is an overall 2.4 percent revenue increase from the last fiscal year. We are still waiting for Congress to approve a reauthorization of the federal transportation bill. These apportionments were used to develop the Capital Improvement Program (CIP) (to be discussed in the next agenda item).
Ms. Kim stated that as part of consolidation SANDAG implements the entire CIP for MTS but only the regional projects for NCTD. NCTD continues to implement the local capital projects.

Chair Kellejian referred members to Table 3 in the agenda report. He said that the total available for MTS projects and service is the current maximum of 40 percent for operations from TransNet. The TransNet Extension continues that percentage. Any additional amount of money over and above what MTS and NCTD are currently receiving is placed into a regional discretionary pot.

Gary Gallegos, Executive Director, reiterated that in the existing TransNet Ordinance one-third goes to transit and up to 40 percent of that amount can be used for operations. In the new TransNet Ordinance beginning in 2009, the amount that will be available for operations is 16.5 percent. Staff has been working with the operators to determine regional criteria for the SANDAG Board to consider for these discretionary funds. About 13 percent for operations from the current TransNet program would continue in the TransNet Extension. The region as a whole would have additional funds to augment existing service or add new service.

Chair Kellejian asked who will decide where that discretionary money goes. Mr. Gallegos replied that the details remain to be worked out. Currently, the transit funds come through the SANDAG Transportation Committee before it goes to the SANDAG Board.

Ms. Kim added that all of the projects will go through the regional SRTP, which includes criteria and an evaluation process for making service decisions.

Councilmember Feller mentioned that input from the Board’s retreat was in support of high-quality service to entice choice riders. He said that we should pursue funding for this purpose.

Councilmember Monroe expressed concern about keeping funding at historical levels when we may have a completely different system after the COA recommendations have been implemented. We will need to balance operations, capital projects, and maintenance. Mr. Gallegos said that the good news about the TransNet Extension is that it offers more flexibility than in the original measure.

Mr. Jablonski clarified that the operators receive 13 percent from the existing TransNet Ordinance and that is split about 70/30 between MTS/NCTD. In the TransNet Extension that percentage increased from 13 percent to 16.5 percent and the additional 3.5 percent will be used for regional priorities.

Karen King, NCTD Executive Director, referring back to Table 1 for TDA noted that staffs of the operating agencies are still discussing an appropriate mechanism to fund those functions that were transferred as part of consolidation.

Councilmember Ritter asked how those TransNet discretionary monies will be spent. Mr. Gallegos replied that the SANDAG Board will make that decision; however, it will be in conjunction with the SRTP. Staff will be developing criteria to apply to this discretionary funding.
Councilmember Feller commented that senior transportation could take up most of that pot of money.

Mr. Jablonski asked if the discretionary money could be used for capital. Mr. Gallegos replied affirmatively. He said that there is more flexibility in the TransNet Extension than was in the original measure.

Action: Upon a motion by Councilmember Feller and a second by Councilmember Ritter, the Transportation Committee recommended that the SANDAG Board adopt the FY 2006 allocations and approve the revenue projections for FY 2007 to FY 2010 at its February 25, 2005, meeting.

7. CAPITAL IMPROVEMENT PROGRAM (CIP) (APPROVE)

Kim York, Financial Project Control Manager, reported that the CIP forms the basis for updating the RTP and the federal formula grant applications. She provided information about the funding sources for the transit CIP. This is a primary source of funding for operations and replacement purposes. The CIP includes NCTD and MTS capital projects, NCTD local and minor improvement projects, and operating assistance (preventive maintenance). The CIP is developed and approved by the operators. The total capital needs are $715 million, and the unfunded capital projects total $332 million. She said that we need to aggressively pursue other funds to meet these unfunded needs.

Ms. York said that the FY 2006 transit CIP challenges include operating assistance (for capital replacement needs) and multi-year project funding. The MTS capital project needs are three times the amount available. Staff is recommending a transfer of $11 million from existing capital projects to the FY 2006 CIP. These existing projects are not canceled; the money is coming from projects that were completed under budget, or projects that were deferred for various reasons.

Ms. York reviewed the FY 2006 CIP schedule and the recommended action to approve the FY 06 CIP, the submittal of federal Section 5707 and 5309 applications for the San Diego region, transfer $11 million from the indicated MTS projects to the FY 06 CIP, and an amendment of the Regional Transportation Improvement Program (RTIP).

Chair Kellejian clarified that CIP projects 1-34 are recommended for federal formula funds in FY 05, CIP projects 35-40 are recommended for dedicated funding, CIP projects 35-40 are safety and security projects that may be eligible for special funding, and CIP projects 41-56 are those submitted by engineering that were not on a priority list. He reiterated that there is no funding for projects 57 through 170.

Councilmember Feller asked if what we are approving is a draft. Mr. Gallegos said that staff is seeking approval from this committee to send to the Board for final approval. Ms. York indicated that the FY 06 funding is set because those projects have been rated and prioritized. Projects in FY 2007-2010 can be reprioritized annually.

Ms. King noted that for NCTD’s process this is premature. The NCTD Board approved a preliminary CIP. In order to balance the operating budget they may have to defer a capital
project, which would result in a change to this listing. There will be a final CIP when the NCTD Board adopts its budget in June.

Ms. York said that we are proposing projects now so the submittal of the federal grant applications can be made in a timely manner. If NCTD approves something in June that is different than presented today, we will move with an amendment or change.

Mayor Madrid commented that there has been some significant gang activity in East County and he wondered about the acquisition of security cameras at East County trolley stations. He thought that we should pursue an aggressive program to use these video cameras as a tool to help security. Mr. Jablonski replied that item No. 20 on the funded list includes installing video surveillance cameras at the Spring Street Trolley Station. This project will go forward immediately along with the implementation of cameras at stations in Chula Vista. MTS will share the costs of this project with NCTD on a 50/50 basis of unallocated TDA funds. Mr. Jablonski noted that the CIP projects that are to receive dedicated funding are unfunded projects. The category of dedicated funding is our program to go to Washington, D.C., to seek discretionary capital dollars through the federal Section 5309 program. We hope that at the federal level there will be some transit security bills associated with Homeland Security with money in them for transit security. We have a ready list of projects so when money becomes available, we will submit the entire program for funding.

Mayor Madrid pointed out that every time we obtain money from the Homeland Security program we take away from the law enforcement program. He noted that we get back only 72 cents for every dollar we send to the federal government.

Mayor Sessom asked about the money being transferred from delayed projects. Ms. York said the delayed project would most likely stay on the list and would compete for future funding. The project may have received bids over the amount of money allocated for the project, resulting in the project having to wait for additional funding before it can be implemented.

Mr. Jablonski mentioned that there will be a correction related to the shifting of planning staff as part of consolidation.

Mr. Jablonski thanked SANDAG staff and, in particular, Kim York who participated with them in this program. It took three months of regular meetings to complete this effort.

Action: Upon a motion by Councilmember Monroe and a second by Councilmember Feller, the Transportation Committee recommended that the SANDAG Board approve the CIP for the San Diego region and submit the associated grants and program applications.

8. INDEPENDENT TRANSIT PLANNING REVIEW (APPROVE)

Ms. Bates said that SANDAG made a commitment as part of the TransNet Extension to conduct an independent transit planning review. The purpose of this review is to evaluate regional transit plans and projects in light of “best practices,” and to assess plans for the ability to respond to identified travel markets. We would use a firm with international

SANDAG Transportation Committee 6 March 4, 2005 - Agenda Item #1 (Approve)
expertise in planning, design, construction, and operation of rail and bus rapid transit (BRT) systems. This will be a two-faceted study with a consultant study and a peer review panel.

Ms. Bates stated that the peer review panel will provide us with a qualified, capable, strong, and objective assessment of our projects. The criteria for the selection of peer review panel participants include real world experience with bus rapid transit, guideway, and/or light rail transit implementation and operations and should not have direct ties to projects and plans in San Diego. Staff has initially proposed representatives from five areas: Los Angeles Metropolitan Transportation Authority (MTA); Ottawa OC Transpo; Pittsburgh PATH; Portland Tri-Met; Houston MTA; and possibly others.

Ms. Bates reviewed the preliminary work scope and tasks including: (1) assessing the effectiveness of the service hierarchy in achieving Regional Transit Vision goals, (2) reviewing the appropriateness of corridors based on travel demand and markets, (3) the ability of the network to serve our multi-centered region (4) the effectiveness of various transit modes and facilities, (5) a review of light rail transit (LRT) and BRT costs based on experience in other cities, and (6) related insights into the effectiveness and potential for supportive land uses. Ms. Bates reviewed key dates for the peer review panel efforts. Final recommendations will be presented in December and will be incorporated into the update of the RTP.

Chair Kellejian noted that on page 2 of the agenda report are the names attached to those agencies listed.

Supervisor Ron Roberts (County of San Diego) asked that in the future Committee members be provided with copies of the charts and graphs included with agenda reports.

Supervisor Roberts stated that we have considerable experience with LRT and not with BRT. The reality is that BRT is not the answer for every situation. He asked if there is going to be some way that issues like that can be looked at in a real sense. He felt that BRT would make sense in certain areas and not in others. He expressed concern about bringing peer review people in that may not be familiar with the San Diego area. Ms. Bates said that the Supervisor’s concern about the applicability of BRT is why it is important to have peer review panelists with a variety of experiences. She added that dedicated transitways can be as expensive as LRT to build. Staff will highlight to the peer review panel members the constraints and get their reaction.

Supervisor Roberts said he wanted an objective and balanced opinion from the peer review panel.

Ms. Bates mentioned that there are a lot of tradeoffs about where you build and operate BRT services. We want expert advice on those tradeoffs.

Mayor Madrid asked if staff had asked Mr. Jablonski and Ms. King their opinion on peer review panel candidates. Ms. Bates replied that she did not ask them directly; however, this issue has been discussed at the staff level. She noted that not all of the people identified for the peer review panel have committed to this and they might have to be replaced with others.
Mr. Jablonski said that he knew some of the peer review panel candidates. He stated that
the thing about BRT is that there aren’t a great number of these facilities already built in
the United States. Ottawa and Pittsburgh have the most experience with them. For rail and
LRT experience, he thought the best experience is here in San Diego, though Portland and
St. Louis also have good systems.

Ms. Bates said that some of the cities have both LRT and BRT and we thought this would be
a good representation because they made choices of which mode to use in various corridors.

Councilmember Feller wondered why we are looking at expertise from other areas when
SANDAG is the model agency that everyone else looks to. He was concerned about
spending money on this course of action when we are already on the cutting edge.
Mr. Gallegos responded that this was something that the Board agreed to as part of the
TransNet Extension ordinance. It is healthy to get this independent review and help us
validate that we are making good choices. He strongly urged the Committee to support this
action. Ms. Bates said that the cost of the total effort is $425,000 with the consultant and
peer review expenditure at $260,000 of that amount.

Chair Kellejian noted that both the RTP and MOBILITY 2030 include BRT systems. There are
some corridors that have technology options.

Supervisor Roberts asked if Transportation Committee members will have a chance to
interact with the peer review panel members and have the opportunity to ask questions.
Ms. Bates said that after the first two- or three-day immersion in April the panel members
would come back two or three more times in the course of the study. We could arrange a
meeting with the Transportation Committee. Mr. Gallegos recommended a workshop with
peer review panel and Transportation Committee members.

Councilmember Monroe said that when we approved this as part of the TransNet Extension
ordinance we should have changed the word “transit” to “transportation.” He said that we
should not focus on transit alone for an efficient system. He asked about the interaction
between this effort and the COA. Ms. Bates answered that the primary focus of this effort
will be on the corridors that are candidates for major capital and operating investments. She
acknowledged there might be some overlap with COA on arterial streets and staff will be
cognizant of that.

Councilmember Monroe expressed his disappointment that academia participation was
dismissed in the peer review panel. He thought that there is a lot of information about new
theories and new technologies. He questioned whether the people who have experience
with existing system can help us plan for tomorrow.

Mayor Sessom agreed with Councilmember Monroe that we should have someone in a
visioning type of role.

Supervisor Roberts said that there is no reason why peer review panel members cannot be
visionaries because they have something on the ground. He wants to get something built.
We should know that what we are doing is to extend the systems we have today for an
effective result from our investment.
Mayor Madrid agreed with Monroe’s comments. We need someone who can temper the real thing with what can be academic. He encouraged this for staff’s recommendation.

Mr. Jablonski agreed it could be a challenge to maintain a level of objectivity in this effort. As we look at these things on a technical basis, there is another aspect, but these all involved big dollar investments. Perhaps having someone with a background in economics might prove helpful.

Chair Kellejian suggested that we approve what is in front of us with regard to the peer review panel and direct staff to come back with recommendations related to academia or a futurist and an economist.

Ms. Bates said that the direction we are proposing is to look at the existing RTP and assess whether we have our investments targeted in the right corridors, and the infrastructure and ability to operate the services. Some of the criticism we have received were related to the method of station and priority treatments.

Councilmember Monroe expressed his appreciation for the consideration of additional peer review panel members.

**Action:** Upon a motion by Supervisor Roberts and a second by Councilmember Ritter, the Transportation Committee approved the proposed study approach and preliminary scope of work for the Independent Transit Planning Review of the RTP and TransNet projects implementing strategy to help determine the most cost-effective and cost-efficient transit service and infrastructure plan for the region with staff returning with recommendations on an academic and/or economic panelist(s).

9. **UPCOMING MEETINGS**

Chair Kellejian noted that free Coaster tickets were distributed to Committee members. Ms. King said that they are two round-trip tickets celebrating the Coaster’s tenth anniversary. On February 25 there will be a special recognition of riders. She encouraged Committee members to use the tickets. She added that beginning on Saturday, February 19 and on Saturdays through May 28, there is a two-for-one program in effect.

The next meetings of the Transportation Committee are scheduled for Friday, March 4 and March 18, 2005.

10. **ADJOURNMENT**

Chair Kellejian adjourned the meeting at 10:43 a.m.

Attachment: Attendance Sheet
## CONFIRMED ATTENDANCE
### SANDAG TRANSPORTATION COMMITTEE MEETING
### FEBRUARY 18, 2005

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DRAFT AIR QUALITY CONFORMITY DETERMINATION FOR THE 2030 REGIONAL TRANSPORTATION PLAN AND 2004 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM

Introduction

The federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The San Diego air basin was designated nonattainment for the federal 1-hour ozone standard but attained that standard in 2001. A nonattainment area is defined as a region where air pollution levels persistently exceed the NAAQS.

Recognizing the impacts of day-long exposure to ozone, the EPA issued a more protective 8-hour standard for ozone. On April 15, 2004, the EPA designated areas of the country that exceed the 8-hour ozone standard as nonattainment areas. The San Diego air basin is among those designated as a nonattainment area, effective on June 15, 2004. Small portions of Eastern San Diego County, which are tribal lands, are in attainment and are shown on page 14 of Attachment 1. The nonattainment designation has triggered new planning requirements, as follows:

- The California Air Resources Board (ARB), in collaboration with the San Diego Air Pollution Control District (APCD) and SANDAG, must develop a State Implementation Plan (SIP) for air quality that demonstrates how the 8-hour ozone standard will be attained by 2009. The SIP is due to the EPA by June 15, 2007.

- EPA’s Final Transportation Conformity Rule Amendments for the New 8-hour Ozone and PM2.5 National Ambient Air Quality Standards require that SANDAG, as the Metropolitan Planning Organization, and the U.S. Department of Transportation (DOT) determine conformity of the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) for the 8-hour ozone standard by June 15, 2005.

A draft air quality conformity analysis that demonstrates conformity of the 2030 Revenue-Constrained RTP and 2004 RTIP to the 8-hour ozone standard has been prepared (Attachment 1).

Recommendation

The Transportation Committee is asked to accept the Draft Air Quality Conformity Analysis of the 2030 RTP, as amended, for distribution and begin a 30-day public comment period. The Transportation Committee also is asked to recommend that the Board of Directors schedule a Public Hearing at its meeting on April 22, 2005.
Discussion

Near ground level, ozone is the main component of smog. Ozone is formed when pollutants emitted by motor vehicles, power plants, gas stations, factories, chemical plants, and consumer and commercial products chemically react in the presence of sunlight. Ozone is a health and environmental concern. It impacts lung function and also causes damage to vegetation, crops, and durability of materials.

According to the transportation conformity rule amendments published on July 1, 2004, SANDAG and the U.S. DOT must make a determination that the 2030 Revenue Constrained RTP and the 2004 RTIP conform to the new 8-hour ozone standard no later than one year after the effective date of designation (June 15, 2005). This rule also prescribes interim procedures for determining conformity prior to the establishment of 8-hour ozone emission “budgets” or targets in the attainment plan or SIP, which is due to EPA by June 15, 2007.

SANDAG consulted on the development of the draft air quality conformity analysis of the 2030 RTP and 2004 RTIP for the 8-hour ozone standard with the San Diego Region Conformity Working Group (CWG). The CWG is an interagency consultation group made up of transportation and air quality agencies that include the San Diego APCD, Caltrans, ARB, U.S. DOT, and U.S. EPA.

As part of the conformity assessment, quantitative air quality emissions analyses were conducted for base year 2002, attainment year 2009, and horizon years 2010, 2014, 2020, and 2030 revenue-constrained transportation scenarios. The results of these analyses are included in Attachment 1 and show that both the 2030 Revenue Constrained RTP and the 2004 RTIP meet the applicable emission budgets and interim tests.

The SANDAG Board of Directors will be asked to make a finding of conformity of the 2030 Revenue Constrained RTP and 2004 RTIP for the 8-hour ozone standard at its meeting on April 22, 2005, following the public hearing.

BOB LEITER
Director of Land Use and Transportation Planning

Staff Contact: Elisa Arias, (619) 699-1936; ear@sandag.org

Attachment
AIR QUALITY PLANNING AND TRANSPORTATION CONFORMITY: EIGHT-HOUR OZONE STANDARD

Background

The federal Clean Air Act (CAA), which was last amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. California has adopted state air quality standards that are more stringent than the NAAQS. Areas with levels that exceed the standard for specified pollutants are designated as non-attainment areas.

The EPA requires that each state containing non-attainment areas develop plans to attain the NAAQS by a specified attainment deadline. These attainment plans are called State Implementation Plans. The San Diego County Air Pollution Control District (APCD) prepares the San Diego portion of the California State Implementation Plan (SIP). Once the standards are attained, further plans – called Maintenance Plans – are required to demonstrate continued maintenance of the NAAQS.

The U.S. EPA has added two new standards to protect public health: measuring ozone levels over eight-hour periods and measuring smaller particulate matter (PM) in the air. The more stringent Eight-Hour ozone standard will protect the public against longer exposure periods. The new fine particulate matter standard (PM2.5) will focus more protection against smaller particles, which pose an increased health risk.

On April 15, 2004, the U.S. EPA designated the San Diego air basin as non-attainment for the Eight-Hour ozone standard. The air basin has been classified as a Basic non-attainment area under Subpart One of the Clean Air Act and the attainment date for the Eight-Hour Ozone standard is June 15, 2009. This designation took effect on June 15, 2004. Several areas that are tribal lands in eastern San Diego County were excluded from the non-attainment designation. As shown in Figure 1, on page 14, La Posta Areas #1 and #2, Cuyapaipe, Manzanita, and Campo Areas #1 and #2 are attainment areas for the Eight-Hour Ozone NAAQS.

In cooperation with the San Diego APCD and SANDAG, the California Air Resources Board (ARB) must develop an Eight-Hour Ozone Attainment Plan for submission to the U.S. EPA as a SIP revision by June 15, 2007.

Published in the Federal Register on July 1, 2004, the Final Transportation Conformity Rule Amendments for the New Eight-Hour Ozone and PM2.5 National Ambient Air Quality Standards requires that conformity of the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) for nonattainment areas be determined to the Eight-Hour ozone standard by June 15, 2005. Both SANDAG, as the Metropolitan Planning Organization, and the U.S. Department of Transportation (DOT) must make the conformity determination by that date to avoid a lapse.
The San Diego region attained the federal One-Hour ozone standard in 2001. The U.S. EPA redesignated the San Diego air basin as attainment/maintenance and approved the One-Hour Ozone Maintenance Plan as a SIP revision, effective on July 28, 2003. EPA will revoke the federal One-Hour ozone standard one year after the effective date of the eight-hour standard designation or on June 15, 2005.

The San Diego region also has been designated by the U.S. EPA as a federal maintenance area for the Carbon Monoxide (CO) standard. On November 8, 2004, ARB submitted the 2004 Revision to the California State Implementation Plan for Carbon Monoxide to the U.S. EPA for approval. Conformity of the 2030 Revenue Constrained RTP and the 2004 RTIP, as amended, will be redetermined to the new CO budget included in the Plan once the U.S. EPA approves the SIP revision.

Most recently, on December 17, 2004, the U.S. EPA designated the San Diego region as a non-attainment area for PM2.5. The effective date of this designation is April 5, 2005. Conformity of plans and programs to the PM2.5 standard must be determined by April 5, 2006. The U.S. EPA will propose a rule to establish planning and control requirements that apply to nonattainment areas for the PM2.5 standard in the next few months.

**Transportation Conformity: Regional Emissions Analysis & Modeling Procedures**

**Introduction**

The 2030 RTP, as amended, includes policies and programs to improve mobility in the San Diego region to the year 2030. The RTP contains three long-range plans based on funding scenarios. Besides the 2030 Mobility Plan, which is based on reasonably expected transportation funding and the Unconstrained Revenue Plan, SANDAG developed a 2030 Revenue Constrained Plan for conducting the air quality conformity analysis. Appendix A of the 2030 RTP Amendment No. 1 describes the Revenue Constrained Plan and Chapter 4 of the 2030 RTP provides information on revenue assumptions.

As explained in the Background section of this Appendix, SANDAG and the U.S. DOT must make a determination that the Revenue Constrained Plan conforms to the SIP for air quality. Conformity to the SIP means that transportation activities will not create new air quality violations, worsen existing violations, or delay the attainment of the national ambient air quality standards.

DOT made the conformity determination for the 2030 RTP on April 9, 2003 and found the 2004 RTIP in conformity with the SIP on October 4, 2004. On January 28, 2005, the SANDAG Board of Directors made a finding of conformity of Amendment No. 1 of the 2030 Revenue Constrained Plan and Amendment No. 2 of the 2004 RTIP, and adopted Amendment No. 1 of the 2030 RTP. SANDAG has requested a conformity finding from U.S. DOT.

The air quality conformity analysis of the 2030 Revenue Constrained RTP and 2004 RTIP for the Eight-Hour ozone standard is based on the amended RTP and RTIP.

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1 Consistent with 23 CFR 450, the 2030 Revenue Constrained Transportation Plan includes only those facilities and programs that could be funded with existing state and federal programs and with the current TransNet local sales tax program, which expires in 2008. A 40-year extension of the TransNet local sales tax was approved by the voters in November 2004. The next update of the 2030 Revenue Constrained RTP will reflect TransNet revenues beyond 2008.
**Growth Forecasts**

Every three to five years, SANDAG produces a long-range forecast of population, housing, and employment growth for the San Diego region. The most recent is the Final 2030 Cities/County Forecast, which was accepted by the SANDAG Board of Directors on December 19, 2003 for use in planning studies.

The forecast process relies on three integrated forecasting models. The first one, the Demographic and Economic Forecasting Model (DEFM), provides a detailed econometric and demographic forecast for the entire region. The second one, the Interregional Commuting Model, provides a forecast of commuting between the San Diego region, southwest Riverside County, and Tijuana/Northern Baja California. The third one, the Urban Development Model, allocates the results of the first two models to subregional areas based upon the current plans and policies of the jurisdictions.

The Final 2030 Cities/County Forecast is based solely on the general and community plans of the 18 cities as adopted. For the unincorporated area, the forecast is based on the most recent (December 2002) version of the County’s GP2020 plan update, as directed by the Board of Supervisors.

In December 2004, SANDAG consulted with the San Diego Region Conformity Working Group (CWG) on the use of the Final 2030 Cities/County Forecast for the air quality conformity analysis of the 2030 RTP and 2004 RTIP to the Eight-Hour ozone standard. Both U.S. DOT and U.S. EPA have concurred that approved plans should be used as input in the air quality conformity process. Table C.1 shows the regional population and employment growth forecast for the San Diego region through 2030.

**TABLE C.1—SAN DIEGO REGIONAL POPULATION AND EMPLOYMENT FORECAST**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Total Employment</th>
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<tr>
<td>2000</td>
<td>2,813,833</td>
<td>1,384,676</td>
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<tr>
<td>2010</td>
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*Source: SANDAG, 2003*
Transportation Modeling

SANDAG follows a widely used four-step transportation modeling process to forecast travel activity in the San Diego region. Travel forecasting procedures are described in more detail in SANDAG’s Regional Transportation Models (1995) and the Preliminary 2030 Forecast Process and Model Documentation (April 2003), which are available upon request.

The estimates of regional transportation-related emissions analysis meet the requirements established in the Transportation Conformity Rule, Sections 93.122(b) and 93.122(c). These requirements relate to the procedures to determine regional transportation-related emissions, including the use of network-based travel models, methods to estimate traffic speeds and delays, and the estimation of vehicle miles of travel.

Tranplan is the transportation planning computer package used to forecast travel activity utilizing datasets that are maintained in the geographic information system (GIS). The transportation modeling steps consist of:

1. Generating average weekday person trip ends in each zone,
2. Estimating trip movements between zones using a trip distribution model,
3. Allocating trips to different forms of transportation using a mode split model, and
4. Assigning vehicle trips to road segments using a traffic assignment model.

Two iterations through the modeling process are made to reach equilibrium between transportation facilities and demand, where congested travel times from the first iteration are input to the second iteration.

The transportation models require two major inputs. One input is a zonal level households and land use forecast, which determines the number of trips generated. Highway and transit system networks are the other key input that affects the amount and location of vehicular travel.

Highway Networks

The regional highway networks in the 2030 RTP include all roads classified by local jurisdictions in their circulation elements. These roads include freeways, expressways, and the Regional Arterial System (RAS). The RAS consists of all conventional state highways, prime arterials, and selected major streets. In addition, some local streets are included in the networks for connectivity between zones.

The route improvements and additions in the 2030 RTP are developed as an integral part of San Diego’s regional growth management and forecasting process. They are intended to provide adequate travel service that is compatible with adopted regional policies for land use and population growth. All regionally significant projects from the 2030 Revenue Constrained RTP are included in the quantitative emissions analysis. These include all state highways, all proposed National Highway System routes, all regionally significant arterials, and all FHWA functionally classified “Other Principal Arterials.”
The networks also account for programs intended to improve the operation of the highway system, including high occupancy vehicle (HOV) lanes and ramp metering. Existing and proposed toll facilities also are modeled to reflect time, cost, and capacity effects of these facilities. The SR 125 South project and SR 241 are the only modeled toll facilities in the San Diego region.

In addition, several managed/HOV lanes are included in the Revenue Constrained Plan. Facilities with proposed managed lanes include I-5, I-15, I-805, and SR 52. It is assumed that the excess capacity not utilized by carpools and transit on HOV routes with two or more lanes in the peak direction as well as reversible HOV routes would be managed so that single occupant vehicles could use these lanes under a pricing mechanism. Traffic flows would be managed so that the facility would operate at level of service C or better.

Based on the networks and programs described above, the 2030 RTP transportation forecasts differentiate between single occupant and multioccupancy or high occupancy vehicle travel times.

SANDAG normally maintains networks for 2000 (the 2030 Cities/County Forecast base year) and the years 2010, 2020, and 2030. A 2014 network also was created to conduct air quality conformity analyses of the 2030 Revenue Constrained RTP to the 2014 One-Hour ozone emissions budgets. Additionally, a base year 2002 network and a 2009 network were created to conduct the interim emissions test for the Eight-Hour ozone standard attainment year.

Appendix A lists the major highway projects included in the analysis. Locally funded regionally significant projects also have been included in the air quality conformity analysis. These projects are funded with TransNet funds, a 20-year half-percent local sales tax for transportation that expires in 2008, and other local revenue sources.

**Transit Networks**

SANDAG also maintains transit network datasets for existing and proposed transit systems. Bus speeds assumed in the transit networks are derived from modeled highway speeds and reflect the effects of congestion. Regional and express transit routes on surface streets are assumed to operate out of congestion due to priority transit treatments. Higher bus speeds may result for transit vehicles operating on highways with HOV lanes and HOV bypass lanes at ramp meters, compared to those routes that operate on highways where these facilities do not exist.

Transit fares are an output of the transit network procedures, which replicate complex fare policies that differ between:

1. Buses which collect a flat fare of between $1.50 and $3.00 depending on the type of service,
2. Trolleys which charge a variable fare of between $1.25 and $2.50 depending on how many stations are traversed,
3. Commuter rail which has a zone-based fare of between $3.50 and $4.65,
4. Regional Bus Rapid Transit (BRT) which is assumed to charge a distance-based fare of between $0.14 and $0.60 per miles that replicates limited express and commuter rail fares, and
5. Corridor BRT, which is assumed to use trolley station-based fares.

Fares are assumed to remain constant in real dollars over the forecast period.
Locally funded regionally significant transit projects have been included in the air quality conformity analysis of the 2030 RTP. These transit projects also are funded with TransNet funds or other local revenue sources. Once network coding is completed, the transportation models are run for the applicable scenarios (2002, 2009, 2010, 2014, 2020, and 2030). Appendix A lists the major regional transit projects included in the analysis.

**Trip Generation**

Trip generation is the first step in the transportation modeling process. Average weekday trip ends by all forms of transportation starting and ending in each zone are estimated for ten trip types: home-work, home-college, home-school, home-shop, home-other, work-other, and other-other, serve passenger, visitor, and airport.

The trip generation model works by applying trip rates to zone level growth forecasts. Trip production rates are expressed as trips per household. Trip production rates vary by trip type and structure type. Trip attractions are expressed as trips per acre of nonresidential land use or trips per household. Trip attraction rates vary by trip type and land use category. The Final 2030 Cities/County Forecast was used to produce trip generation forecasts for the years 2002, 2009, 2010, 2014, 2020, and 2030.

In recent years, urban planners have engaged in a debate about whether increasing highway capacity generates induced travel. Most opinions revolve around the following ideas:

- Households will make new trips because adding highway capacity reduces the cost or time spent traveling to a location. However, travel costs or travel times will ultimately increase over time as more vehicles use a facility and the new road begins to experience congestion.
- New facilities may cause a diversion of existing trips from more congested roads to less congested ones. New land uses along a corridor also may result in redistribution of trips to a new destination using an alternative route, but do not necessarily cause more trips overall.

SANDAG’s regional transportation model uses a relatively high trip generation rate for households (8.1 vehicle trips per day), which may account for possible increases in trip making as new facilities are built. Also, the model accounts for travel diversion among facilities.

**Trip Distribution**

After trip generation, trip movements between zones are determined using a trip distribution gravity model. Inputs to the trip distribution model include zone level trip generation forecasts by trip type, zone-to-zone travel times, and friction factors by trip type.

Travel times are based on the 2030 RTP network scenarios. Highway improvements may induce longer trip lengths by allowing motorists to travel farther in the same amount of time. This effect is represented with the trip distribution model. Travel times differ between initial and final model iterations. Initial travel times reflect free-flow conditions, and final times reflect the effects of congestion.
Mode Choice

At this point in the modeling process, total person trip movements between zones are split into different forms of transportation: drive alone, two-person carpools, three persons or more carpools, transit, and other (bicycling and walk). Trips between zone pairs are allocated to modes based on the cost and time of traveling by a particular mode compared to the cost and time of traveling by other modes. For example, vehicle trips on a congested route would be more likely to be diverted to light rail than vehicle trips on an uncongested freeway.

Income level also is considered since surveys show that high-income travelers are more concerned about the level of service offered by a mode than those with lower incomes. The mode choice model is calibrated using 1995 Travel Behavior Survey trip tables by mode and income and 1995 Regional Transit Survey transit trip characteristics. Preliminary Census 2000 journey-to-work data and 2000 onboard transit passenger counts also are used in the calibration process.

A number of data files are input to the mode choice model. These include:

- Zonal incomes
- Trip tables from the distribution model
- Peak and off-peak period highway times
- Peak period HOV times
- Peak and off-peak period transit times
- Transit fares
- Auto driving and parking costs
- Transit accessibility measures

Highway and transit travel time datasets differ between initial and final passes through the modeling process. Final iteration times reflect congestion effects identified in the first iteration.

The model produces a.m. peak, p.m. peak, and off-peak period trip tables for vehicles and transit riders. The a.m. peak period is from 6 to 9 a.m. and the p.m. peak period is from 3 to 6 p.m. The off-peak period covers the remaining 18 hours of the day. A series of mode choice model runs were performed in the course of analyzing the 2030 RTP scenarios through two model iterations.

Highway Assignment

Highway assignment produces traffic volume estimates for all roadway segments in the system. These traffic volumes are an important input to emissions modeling.

The highway assignment model works by finding roads that provide the shortest travel time between each zone pair. Trips between zone pairs are then accumulated on road segments making up minimum paths. Highway travel times consider posted speed limits, signal delays, and congestion delays. The model computes congestion delays for each segment based on the ratio of the traffic volume to roadway capacity. Four iterations of equilibrium assignment and capacity restraint are performed within each assignment model run.
Motorists may choose different paths during peak hours when congestion can be heavy and off-peak hours when roadways are typically free flowing. For this reason, traffic is assigned separately for a.m. peak, p.m. peak, and off-peak periods.

Vehicle trip tables for each scenario reflect increased trip-making due to population growth and variations in travel patterns due to the alternative transportation facilities/networks proposed.

Model accuracy is assessed by comparing model estimated 2000 traffic volumes with actual traffic counts obtained through SANDAG's traffic monitoring program and Highway Performance Monitoring System (HPMS) estimates of vehicle miles of travel (VMT).

**Post-Tranplan Processing**

Standard Tranplan output needs to be reformatted and adjusted to be useful for emissions modeling. Several routines and computer programs have been written to accomplish the following major functions:

- Correcting link specific traffic volume forecasts for calibration error
- Adding in estimated travel on roads not in the transportation modeling process
- Computing link speeds based on corrected link volumes, Highway Capacity Manual relationships between congestion and speed (or signal delay)
- Splitting link volumes into heavy-duty truck and other traffic to obtain speed distributions by vehicle class
- Preparing a data set that contains total VMT, number of trip starts, and VMT by speed category by time of day for each vehicle class

Post-Tranplan processing routines are performed twice. First, they are run after the initial model iteration to provide travel times for the final model iterations. Second, they are performed on the final model assignments to provide inputs for emissions modeling.

**Motor Vehicle Emissions Modeling**

*Emissions Model*

In October 2002, ARB released EMFAC 2002, an emissions inventory model that calculates emissions for motor vehicles operating in California. It is an integrated model that combines emission rate data with vehicle activity to calculate regional emissions. EPA approved EMFAC 2002 for use in conformity determinations on April 1, 2003.

The EMFAC 2002 model supports calculation of emissions for the Burden mode. The Burden mode is used for calculating regional emission inventories. In this mode, the model reports total emissions as tons per day for each pollutant, by vehicle class and the total vehicle fleet. The Burden mode uses emission factors that have been corrected for ambient conditions and speeds combined with vehicle activity to calculate emissions in tons per day. Vehicle activity includes the number of vehicles, daily vehicle miles traveled, and the number of daily trips.
The air quality analysis of the 2030 Revenue Constrained RTP for the Eight-Hour ozone standard was conducted using EMFAC 2002’s Burden mode. Projections of daily regional emissions were prepared for reactive organic gases (ROG) and nitrogen oxides (NOx).

On-road motor vehicle emissions are attributed to several different processes:

- Starting exhaust
- Running exhaust
- Idle exhaust (calculated for heavy-duty trucks only)
- Resting and diurnal evaporation
- Running losses
- Hot soak evaporation

Emission factors vary by vehicle class, fuel usage, and technology. Thirteen vehicle classes are modeled: passenger car, two types of light-duty trucks, medium-duty truck, two types of light-heavy-duty trucks, medium-heavy-duty truck, heavy-heavy-duty truck, line-haul vehicle, urban bus, school bus, motorcycle, and motor-home. The fuels modeled are gasoline, diesel, and electrically powered vehicles. Technology categories can be grouped into catalyst, noncatalyst, and diesel.

Emission factors for processes that vary by temperature (i.e., starting exhaust, hot soak, and running exhaust) are broken down further by specified temperature ranges. Exhaust emission factors also are broken down by speed range.

**Regional Emissions Forecasts**

Regional transportation forecasts were initiated in December 2004. Output from the Tranplan model was then reformatted and adjusted to be useful for emissions modeling.

**Eight-Hour Ozone Standard**

The transportation conformity rule prescribes different conformity tests for Eight-Hour ozone areas that have One-Hour Ozone State Implementation Plan (SIP) budgets and for areas that do not have One-Hour Ozone SIPs. The San Diego One-Hour Ozone Maintenance Plan established ROG and NOx budgets for 2010 and 2014, but not for 2009. On June 26, 2003, EPA approved the Maintenance Plan and motor vehicle emissions budgets as SIP revisions. These SIP revisions became effective on July 28, 2003.

In August 2004, SANDAG consulted with the CWG on various options for interim emissions analysis. The approach agreed by the CWG is described below:

- Under the new eight-hour ozone standard, the San Diego air basin falls under Boundary Scenario 2, where the eight-hour ozone area is smaller than and within the One-Hour ozone boundary. Figure 1, on page 14, shows the Eastern San Diego County attainment areas, which are tribal lands (Cuyapaipe, La Posta # 1 and #2, Campo # 1 and #2, and Manzanita). The CWG agreed to use the existing approved budget for the entire One-Hour ozone nonattainment area for the analysis years for which One-Hour ozone budgets are available (2010 and 2014) and for the remaining analysis years (2020 and 2030).
To conduct the interim emissions test for 2009, the CWG agreed to use the no-greater-than-2002 test for the attainment year 2009.

Therefore, countywide forecasts of average weekday ROG and NOx emissions were produced for 2002, 2009, 2010, 2014, 2020, and 2030 using the EMFAC 2002 model. ROG and NOx emissions are based on the summer season.

The analysis years were selected to comply with Sections 93.106(a) (1) and 93.118 (a) of the Transportation Conformity Rule. According to these sections, the first horizon year (2010) must be within ten years from the base year used to validate the regional transportation model (2000), the last horizon year must be the last year of the transportation plan’s forecast period (2030), and the horizon years may be no more than ten years apart (2020). In addition, as explained above, the interim regional emissions analysis for the Eight-Hour ozone standard must be conducted for the emissions budgets in the applicable SIP (ROG and NOx budgets for 2010 and 2014). Finally, emissions forecasts for 2002 and 2009 were prepared to conduct the interim attainment year 2009 test.

**Emissions Modeling Results**

An emissions budget is the part of the SIP that identifies emissions levels necessary for meeting emissions reduction milestones, attainment, or maintenance demonstrations.

To determine conformity of the 2030 RTP and the 2004 RTIP to the Eight-Hour ozone standard, the plan and the program must comply with the interim emission analysis described in the Regional Emissions Forecast section.

Table C.2 summarizes the 2030 Revenue Constrained RTP and 2004 RTIP air quality conformity analysis and interim emissions analysis for the Eight-Hour ozone standard. This analysis shows that both the 2030 Revenue Constrained RTP and the 2004 RTIP (including interim years) meet the applicable budgets and interim tests. Projected ROG and NOx emissions for 2009 are lower than the base year 2002 and those for 2010, 2014, 2020, and 2030 are below the SIP budgets for 2010 and 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Weekday Vehicle Starts (1,000s)</th>
<th>Average Weekday Vehicle Miles (1,000s)</th>
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<th>NOx</th>
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<td>15,789</td>
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<td>2020</td>
<td>16,784</td>
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<td>18</td>
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</table>
Exempt Projects

Section 93.126 of the Transportation Conformity Rule exempts certain highway and transit projects from the requirement to determine conformity. The categories of exempt projects include safety, mass transit, air quality (ridesharing and bicycle and pedestrian facilities), and other (such as planning studies).

Table C.3 illustrates the exempt projects considered in the 2030 Revenue Constrained Plan. This table shows short-term exempt projects. Additional unidentified projects could be funded with revenues expected to be available from the continuation of existing state and federal programs.

TABLE C.3—EXEMPT PROJECTS

<table>
<thead>
<tr>
<th>Project/Program Description</th>
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<tbody>
<tr>
<td>Bikeway, Rail Trail and Pedestrian Projects</td>
</tr>
<tr>
<td>Camino Del Mar/Jimmy Durante Blvd. Bicycle Bridge</td>
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<tr>
<td>Cliff Street Pedestrian Overcrossing</td>
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<tr>
<td>Coastal Rail Trail</td>
</tr>
<tr>
<td>Escondido Creek Bike Path Phases 4 &amp; 5</td>
</tr>
<tr>
<td>Escondido Creek Bike Path Undercrossings</td>
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<tr>
<td>Inland Rail Trail Phase 2</td>
</tr>
<tr>
<td>Lake Hodges Bicycle-Pedestrian Bridge Approach Improvements</td>
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<tr>
<td>Lake Hodges Bicycle-Pedestrian Bridge</td>
</tr>
<tr>
<td>Pacific Highway/Barnett Interchange Improvements</td>
</tr>
<tr>
<td>Rosa Street Pedestrian Overcrossing</td>
</tr>
<tr>
<td>Rose Creek Bicycle Bridge</td>
</tr>
<tr>
<td>San Diego River Bikeway</td>
</tr>
<tr>
<td>SR 56 Bike Path Interchanges</td>
</tr>
<tr>
<td>Sweetwater River Bike Path</td>
</tr>
<tr>
<td>Via de la Valle Bikeways</td>
</tr>
<tr>
<td>Regionwide Traffic Incident Management</td>
</tr>
<tr>
<td>Freeway Service Patrol</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
</tr>
<tr>
<td>RideLink Regional Rideshare Program</td>
</tr>
<tr>
<td>Regional Vanpool Program</td>
</tr>
<tr>
<td>Transportation Management Systems</td>
</tr>
<tr>
<td>Automated Traveler Information System</td>
</tr>
<tr>
<td>Traffic Management System (I-805, SR 94)</td>
</tr>
<tr>
<td>Fiber Optic/Closed Circuit Camera (I-8/15/805)</td>
</tr>
<tr>
<td>Ramp Meters (I-5/805, SR 94)</td>
</tr>
<tr>
<td>Traffic Monitoring Stations (I-5/805, SR 94)</td>
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<tr>
<td>Other traffic management systems</td>
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</table>
Implementation of Transportation Control Measures

There are four TCMs that must be implemented in San Diego, which the SIP refers to as Transportation Tactics. They include ridesharing, transit service improvements, traffic flow improvements, and bicycle facilities and programs.

These TCMs were established in the 1982 SIP, which identified general objectives and implementing actions for each tactic. The TCMs have been fully implemented. Ridesharing, transit, bicycling, and traffic flow improvements continue to be funded, although the level of implementation established in the SIP has been surpassed. No TCMs have been removed or substituted from the One-Hour Ozone Maintenance Plan, which is the applicable SIP.

Interagency Consultation Process and Public Input

The consultation process followed to prepare the air quality conformity analysis for the 2030 Revenue Constrained Plan complies with the San Diego Transportation Conformity Procedures adopted in July 1998. In turn, these procedures comply with federal requirements under 40 CFR 93. Interagency consultation involves SANDAG (as the MPO for San Diego County), the APCD, Caltrans, ARB, DOT, and EPA.

Consultation is a three-tier process that:

1. formulates and reviews drafts through a conformity working group,
2. provides local agencies and the public with opportunities for input through existing regional advisory committees and workshops, and
3. seeks comments from affected federal and state agencies through participation in the development of draft documents and circulation of supporting materials prior to formal adoption.

SANDAG consulted on the development of the air quality conformity analysis of the 2030 RTP and 2004 RTIP, as amended, at meetings of the San Diego Region Conformity Working Group (CWG), as follows:

- On August 18, 2004, the CWG discussed relevant sections of the Final Transportation Conformity Rule Amendments for the New Eight-Hour Ozone and PM2.5 National Ambient Air Quality Standards. Particularly, the CWG discussed the conformity grace period and revocation of the One-Hour ozone standard, the initial Eight-Hour ozone conformity determination, and regional conformity tests before Eight-Hour Ozone SIP budgets are found adequate. The outcome of this discussion was reviewed at the September 22, 2004 meeting of the CWG.

- On December 15, 2004, SANDAG staff presented the schedule for the preparation of the conformity analysis and consulted on criteria and procedures for determining conformity. Items discussed included interim emissions analysis, the use of latest planning assumptions, implementation of TCMs, emissions model and budgets, as well as consultation and public involvement.

On January 18, 2005, SANDAG released the draft air quality conformity analysis for the 2030 RTP and 2004 RTIP, as amended, for a 30-day public review and comment period. On that date, it also
was distributed to the San Diego Region CWG. The draft air quality analysis was discussed at the February 16, 2005 meeting of the San Diego Region CWG.

On March 4, 2005, the Transportation Committee will be asked to distribute the draft conformity analysis for a subsequent 30-day public review and comment period. The SANDAG Board of Directors will be asked to make a finding of conformity of the 2030 Revenue Constrained RTP and the 2004 RTIP, as amended, at its meeting on April 22, 2005. Members of the public are welcomed to provide comments at meetings of the San Diego Region CWG, the Transportation Committee, and the SANDAG Board of Directors.
Figure 1 - Eastern San Diego County Attainment Areas for the 8-Hour Ozone NAAQS
### TABLE A.1—MAJOR CAPITAL IMPROVEMENTS – REVENUE CONSTRAINED PLAN

<table>
<thead>
<tr>
<th>Transit Facilities</th>
<th>Cost ($ millions)</th>
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<tr>
<td>Mission Valley East Trolley Extension</td>
<td>$450</td>
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<tr>
<td>Oceanside to Escondido Rail</td>
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<tr>
<td>Mid-Coast Light Rail</td>
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<tr>
<td>Oceanside-Escondido Rail Double Tracking and North County Fair Extension</td>
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<td>Coastal Rail Double Tracking and Other Improvements*</td>
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<td>Coastal Rail Tunnel at Del Mar*</td>
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<td>Early Action Project Funding</td>
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<tr>
<td>Improved/New Major Transit Stations and Centers</td>
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<tr>
<td>Direct Access Ramps to Managed/HOV Lanes</td>
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<tr>
<td>Vehicles for New Regional and Corridor Transit Services</td>
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<td>Arterial Transit Priority Improvements</td>
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<th>HOV and Managed Lane Facilities</th>
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<tr>
<td><strong>Freeway</strong></td>
<td><strong>From</strong></td>
</tr>
<tr>
<td>I-5</td>
<td>I-805</td>
</tr>
<tr>
<td>I-5</td>
<td>SR 56</td>
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<tr>
<td>I-15</td>
<td>SR 94</td>
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<tr>
<td>I-15</td>
<td>SR 163</td>
</tr>
<tr>
<td>I-15</td>
<td>SR 56</td>
</tr>
<tr>
<td>I-15</td>
<td>Centre City Pkwy.</td>
</tr>
<tr>
<td>SR 52</td>
<td>I-805</td>
</tr>
<tr>
<td>SR 52</td>
<td>I-15</td>
</tr>
<tr>
<td>SR 54/SR 125</td>
<td>I-805</td>
</tr>
<tr>
<td>SR 94</td>
<td>I-5</td>
</tr>
<tr>
<td>SR 241**</td>
<td>Orange County</td>
</tr>
<tr>
<td>I-805</td>
<td>SR 905</td>
</tr>
<tr>
<td>I-805</td>
<td>SR 54</td>
</tr>
<tr>
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<td>Mission Valley Viaduct</td>
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<tr>
<td>I-805</td>
<td>I-8</td>
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<td><strong>Intersecting Freeway</strong></td>
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<tr>
<td>I-5</td>
<td>I-805</td>
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<td>I-15</td>
<td>SR 94</td>
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<td><strong>Subtotal</strong></td>
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<table>
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<th>Highway System Completion</th>
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<td><strong>From</strong></td>
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<tr>
<td>I-5/I-805</td>
<td>Port of Entry – Mexico</td>
</tr>
<tr>
<td>SR 11</td>
<td>SR 905</td>
</tr>
<tr>
<td>SR 52</td>
<td>SR 125</td>
</tr>
<tr>
<td>SR 56</td>
<td>Camino Ruiz</td>
</tr>
<tr>
<td>SR 125**</td>
<td>SR 905</td>
</tr>
<tr>
<td>Freeway</td>
<td>From</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>SR 125</td>
<td>San Miguel Rd.</td>
</tr>
<tr>
<td>SR 125</td>
<td>Jamacha Road</td>
</tr>
<tr>
<td>SR 125</td>
<td>Navajo Road</td>
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<td>SR 905</td>
<td>I-805</td>
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<table>
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<tr>
<th>Routes</th>
<th>From</th>
<th>To</th>
<th>Existing</th>
<th>Improvements</th>
<th>Cost ($ millions)</th>
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<tr>
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<td>SR 54</td>
<td>Sea World Drive</td>
<td>8F</td>
<td>Access Improvements</td>
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<tr>
<td>I-5</td>
<td>I-805</td>
<td>SR 56</td>
<td>10F</td>
<td>14F</td>
<td>$190</td>
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<tr>
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<td>I-5</td>
<td>I-15</td>
<td>4F</td>
<td>6F</td>
<td>$40</td>
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<td>SR 75/SR 282***</td>
<td>Glorietta Blvd.</td>
<td>Alameda Blvd.</td>
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<td>6C + 2TU</td>
<td>$6</td>
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<tr>
<td>SR 76</td>
<td>Melrose Drive</td>
<td>Mission Road</td>
<td>2C</td>
<td>4C</td>
<td>$100</td>
</tr>
<tr>
<td>SR 125**</td>
<td>Telegraph Cyn.</td>
<td>San Miguel Road</td>
<td>4T</td>
<td>6T</td>
<td>$30</td>
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<tr>
<td>SR 125</td>
<td>San Miguel Rd.</td>
<td>SR 54</td>
<td>4F</td>
<td>6F</td>
<td>$30</td>
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<td></td>
<td><strong>Regionally Significant Arterials and Local Freeway Access Interchanges</strong></td>
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**Subtotal** $916

<table>
<thead>
<tr>
<th>Freeway Connectors</th>
<th>Intersecting Freeway</th>
<th>Movement</th>
<th>Cost ($ millions)</th>
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<tr>
<td>I-5</td>
<td>SR 56</td>
<td>West to North &amp; South to East</td>
<td>$140</td>
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<tr>
<td>I-5</td>
<td>SR 78</td>
<td>West to South &amp; South to East</td>
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<tr>
<td>SR 94</td>
<td>SR 125</td>
<td>West to North &amp; South to East</td>
<td>$110</td>
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**Subtotal** $400

**Total** $10,863

**KEY:**
- C = Conventional Highway
- F = Freeway Lanes
- TU = Tunnel
- L = Freeway Lanes
- MB = Movable Barrier
- HOV = High Occupancy Vehicle Lanes
- ML = Managed Lanes (HOV & Value Pricing)
- ML(R) = Managed Lanes (Reversible)
- ** = privately funded
- *** = funding from federal discretionary defense funding sources
- * = funding from state/federal discretionary transportation funding sources

Source: SANDAG, Final 2030 Regional Transportation Plan.
<table>
<thead>
<tr>
<th>YEAR BUILT BY</th>
<th>FREWAY</th>
<th>FROM</th>
<th>TO</th>
<th>EXISTING</th>
<th>IMPROVEMENT</th>
<th>COST</th>
<th>CUMULATIVE COST</th>
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<tbody>
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<td>2010</td>
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<td>Port of Entry – Mexico</td>
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<td>Inspection Facility</td>
<td>$20</td>
<td>$20</td>
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<td>I-805</td>
<td>SR 56</td>
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<td>$190</td>
<td>$210</td>
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<td>2010</td>
<td>I-15</td>
<td>SR 163</td>
<td>SR 56</td>
<td>8F + ML (R)</td>
<td>8F + 4ML/MB</td>
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<td>$410</td>
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<td>8F + 4ML/MB</td>
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<td>$750</td>
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<td>Carmel Country</td>
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<td>6F</td>
<td>$170</td>
<td>$1,590</td>
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<td>IMPROVEMENT</td>
<td>COST</td>
<td>CUMULATIVE COST</td>
</tr>
<tr>
<td>--------------</td>
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<td>----------------</td>
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<td>----------------------</td>
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<td>I-15</td>
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¹ These projects are included in the 2010, 2014, 2020, and 2030 analysis years for air quality assessment.

**KEY:**
- C = Conventional Highway Lanes
- F = Freeway Lanes
- T = Toll Road
- MB = Movable Barrier
- TU = Tunnel
- ML = Managed Lanes (HOV & Value Pricing)
- HOV = High Occupancy Vehicle Lanes
- ML(R) = Managed Lanes (Reversible)

Source: SANDAG, Final 2030 Regional Transportation Plan.
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<th>YEAR</th>
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<td>Mid-Coast to Balboa</td>
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<td>Increase in Coaster</td>
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<td>120 (current)</td>
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<td>628</td>
<td>Centre City to Otay Mesa via SR 94/I-805</td>
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¹ These projects are included in the 2010, 2020, and 2030 analysis years for air quality assessment.

Source: SANDAG, Final 2030 Regional Transportation Plan.
LOS ANGELES – SAN DIEGO – SAN LUIS OBISPO RAIL CORRIDOR AGENCY (LOSSAN)
BOARD OF DIRECTORS MEETING REPORT

Introduction

The LOSSAN Rail Corridor Agency seeks to increase ridership, revenue, capacity, reliability, and safety on the coastal rail line from San Diego to Los Angeles to San Luis Obispo. Known as Amtrak’s Pacific Surfliner corridor, it is the second busiest intercity passenger rail corridor nationwide and Amtrak’s fastest growing. A LOSSAN membership roster is provided as Attachment 1.

The LOSSAN Joint Powers Board meets quarterly and the Technical Advisory Committee (TAC) meets generally every other month. SANDAG is staff to the LOSSAN Board and TAC. A summary of the LOSSAN Board meeting held on February 9, 2005 is provided as Attachment 2.

Recommendation

This report is presented to the Transportation Committee for information.

SANDAG Actions Related to LOSSAN Board Actions

At their February meeting, the LOSSAN Board of Directors voted to register the agency’s support with the California Transportation Commission (CTC) for a SANDAG-managed rail capital project to further stabilize the Del Mar Bluffs. The $754,000 in state funds is critical to retaining nearly $4 million in federal funds that have been secured by LOSSAN on behalf of the San Diego region. The LOSSAN Board of Directors also approved a 2005 legislative program that complements SANDAG’s legislative priorities related to transportation and smart growth. The LOSSAN Board continues to advocate for rail funds in the reauthorization of the federal TEA-21 surface transportation bill, currently under consideration by Congress. Projects along the San Diego rail corridor would be eligible for these funds. Finally, the Board reiterated its support for a stable source of federal funds for Amtrak.
MEMBERSHIP

This board is composed of current and former elected officials representing rail owners, operators, and planning agencies along Amtrak’s Pacific Surfliner corridor between San Diego and San Luis Obispo. LOSSAN is staffed by SANDAG. The objective of the agency is to coordinate planning and programs that increase ridership, revenue, reliability, and safety on the coastal rail line from San Luis Obispo to Los Angeles to San Diego.

The Los Angeles - San Diego – San Luis Obispo Rail Corridor Agency meets every quarter.

Staff contact: Linda Culp
(619) 699-6957; lcu@sandag.org

MEMBERS

Chair: Arthur Brown
Orange County Transportation Authority

Vice Chair: Jacki Bacharach
Los Angeles County Metropolitan Transportation Authority

Julianne Nygaard
North County Transit Development Board

Richard Dixon
Orange County Transportation Authority

Beatrice Proo
Los Angeles County Metropolitan Transportation Authority

Jerry Rindone
San Diego Metropolitan Transit System

Joe Kellejian
San Diego Association of Governments

Keith Millhouse
Ventura County Transportation Commission

Susan Rose
Santa Barbara County Association of Governments

John Shoals
San Luis Obispo Council of Governments

Bill Bronte
Caltrans, Division of Rail

ALTERNATES

Harry Mathis
San Diego Metropolitan Transit System

Brian Humphrey
Ventura County Transportation Commission

Salud Carbajal
Santa Barbara County Association of Governments

Mary Ann Reiss
San Luis Obispo Council of Governments

Jack Feller
North County Transit Development Board

Vacant
Southern California Association of Governments

Additional Technical Advisory Committee Members

Amtrak

Burlington Northern Santa Fe

California Public Utilities Commission

Southern California Regional Rail Authority

Union Pacific
Board Actions: February 2005

SELECTION OF CHAIR AND VICE CHAIR

The Board of Directors re-elected Art Brown, Councilmember from the City of Buena Park and LOSSAN Board Member representing OCTA, as Chair for 2005. Jacki Bacharach, Board Member representing MTA, was re-elected Vice Chair for 2005.

LOSSAN SUPPORT FOR FY 2005 STATE FUNDING FOR INTERCITY RAIL PROJECTS

The Board received an update on the state budget from Caltrans and voted to request that the California Transportation Commission (CTC) fund two intercity rail projects in FY 2005 that are in the CTC’s prioritized project list. These projects are the completion of the seismic retrofit of Tunnel 26 in Ventura County and the Del Mar Bluffs Stabilization Project in San Diego County. Funds requested total $10,254 million and are part of the $900 million in programming authority available to the CTC this year. The CTC will review this request at their March 2005 meeting.

LOSSAN SUPPORT FOR TEA-21 REAUTHORIZATION AND CONTINUED SUPPORT FOR AMTRAK

The Board received an update on federal legislative activities related to the reauthorization of TEA-21 and the Bush Administration’s proposal to cut funding for Amtrak in FY 2006. The Board voted to organize support for a Joint Resolution of the California Assembly and Senate, as well as support from the Governor, for a stable source of federal funds for Amtrak.

2005 LEGISLATIVE PROGRAM

The Board approved the 2005 Legislative Program developed by the Technical Advisory Committee (TAC) that specifically defines priorities for the rail corridor agency on the local, state, and federal levels. The Board added a high priority item to support goods movement legislation that benefits passenger rail and strengthened the provision to support funds from Homeland Security for system protection and passenger safety. The Board also requested that LOSSAN assume a larger profile and directly participate in efforts to advocate for transportation funds.

LOSSAN CORRIDORWIDE STRATEGIC BUSINESS PLAN

The Board received a status report on the LOSSAN Corridorwide Strategic Business Plan, which is developing a strategic business plan for the Los Angeles to San Luis Obispo segment of the corridor and will be integrated with the existing Los Angeles to San Diego strategic business plan. A key component of the plan will be the identification of projects and their schedule for implementation. Public meetings in Ventura, Santa Barbara, and San Luis Obispo counties are scheduled for March 1-3, 2005. The study is expected to conclude in September 2005. Caltrans is considering whether to extend the study to review the possibility of commuter rail options in the northern segment of the corridor.
FY 2006 OVERALL WORK PROGRAM

The Board of Directors approved the overall work program for FY 2006 recommended by the TAC. The main focus of this program will be continued administrative support for the agency and the completion of the LOSSAN Corridorwide Strategic Business Plan. The Board requested that voting member agencies contribute to SANDAG’s continued role by each contributing $5,000 either in funds or in-kind support for a total of $40,000 for administrative activities. The other voting member, Caltrans, will continue to fund the LOSSAN Strategic Business Plan through FY 2006. As was the case in FY 2005, SANDAG has decided to fund the shares for NCTD and MTS per recent agency consolidation among these agencies.

FRA INTERIM FINAL RULE ON THE USE OF LOCOMOTIVE HORNS AT HIGHWAY-RAIL GRADE CROSSINGS AND “QUIET ZONES”

The Board received an informational report from Federal Railroad Administration (FRA) staff regarding the recent rule on the use of horns at grade crossings and the ability of communities to create quiet zones at crossings as long as the community is willing to take on the associated liability. The final rule is expected by April 1, 2005.

PACIFIC SURFLINER REPORT

Prior to January 2005, Pacific Surfliner trains continued to experience record ridership. Due to the suspension of intercity service for three days between San Diego and Los Angeles in January and suspension of complete service north of Los Angeles until the end of February (as a result of winter storm damage to the rail line), ridership declined in January over the previous year by 14 percent. Revenue declined by 19 percent.

NEXT MEETINGS

The LOSSAN Board will next meet on Wednesday, May 4, 2005, in Santa Barbara beginning at 10:30 a.m. (location to be determined).

The LOSSAN TAC will next meet on Tuesday, April 19, 2005, at MTA at 11:30 a.m.
REPROGRAMMING OF CAPITAL FUNDS/TRANSIT CAPITAL PROJECT BUDGET AMENDMENTS

Introduction

SANDAG staff, with concurrence from the Metropolitan Transit System (MTS) Board of Directors, has identified available funding from completed projects and a project with surplus funding that can be transferred to two projects that are ready for construction. Approximately $137,100 from prior-year completed capital improvement projects and $23,000 from Regional Miscellaneous Operations Capital would be transferred to the Cesar E. Chavez/25th & Commercial Trolley Station Improvement Project (CIP 1074000) to improve the existing station. In addition, approximately $200,000 from the Kearny Mesa Division (KMD) Paint Booth Filters Replacement and Drop Table Rehabilitation Building 100 Project (CIP 1100200), a project with a projected surplus, would be transferred to the Imperial Avenue Division (IAD) Steam Rack Upgrade Project (CIP 1112900).

Recommendation

The Transportation Committee is requested to approve the proposed budget amendments, as shown in Attachment 1, Budget Amendment Summary. The MTS Board concurs with this recommendation.

Discussion

The Cesar E. Chavez/25th & Commercial Trolley Station Improvement Project will provide lighting enhancements, station shelters, and added seating. These improvements will provide added safety, protection from the weather and would aesthetically enhance the existing station, providing a more enjoyable experience to transit patrons. In addition, MTS-approved artwork will be added to this station, via a City of San Diego grant, making the station a positive signature for the community. The funding transferred will come from projects already completed and from Regional Miscellaneous Operation Capital funds. Approximately $100,500 will come from the Sweetwater Flats Switch Replacement Project (CIP 1089300); $6,500 from the Light Rail Transit (LRT) Station and Parking Lot Improvement Project (CIP 1074100); $26,600 from the Station and Parking Lot Lighting Project (CIP 1083900); $3,500 from the Fenton Parkway Grade Crossing Project (CIP 1084300); and $23,000 from the Regional Miscellaneous Operation Capital Project (CIP 1106900). The total amount transferred is $160,100.

In addition, the IAD Steam Rack Upgrade Project recently completed design, and will provide for a new hoist lift system to steam clean standard and articulated buses. Due to the San Diego Transit Corporation’s (SDTC’s) urgent need to complete this FY 2005 project, design was fast tracked and
the project is now ready for construction. The existing budget is insufficient and needs approximately $200,000 to adequately fund the project for construction. The $200,000 will be transferred from the KMD Paint Booth Filters Replacement and Drop Table Rehabilitation Building 100 Project (CIP 1100200) that is in the same grant as the IAD Steam Rack Upgrade Project and that has a projected $200,000 in surplus funds due to less costly alternative design.

The approval of funding transfers totaling $360,100 will allow these projects to move forward to construction.

JACK BODA  
Director of Mobility Management and Project Implementation  
Attachment

Key Staff Contact: Pete d’Ablaing, (619) 699-1906, pda@sandag.org
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REVISIONS TO POLICY NO. 18: REGIONAL TRANSIT SERVICE PLANNING

Introduction

On February 4, 2005, the Transportation Committee endorsed revisions to the regional transit service planning and implementation process spelled out in SANDAG Policy No. 18: Regional Transit Service Planning. The revisions shifted the responsibility for conducting public hearings for transit service changes to the two transit agencies (Metropolitan Transit System and North San Diego County Transit Development Board), and established a process for determining regional policy consistency by SANDAG prior to the public hearings for transit service changes with regional significance. SANDAG would have an advisory role for local and minor transit service changes. Attachment 1 includes a flow chart outlining the revised Regional Transit Service Planning and Implementation process. Attachment 2 includes a line-in, line-out version of Policy No. 18 that reflects the revisions. Upon Transportation Committee approval, the revised Policy No. 18 would be presented to the SANDAG Board of Directors for adoption.

Recommendation

The Transportation Committee is asked to recommend that the Board adopt revised Policy No. 18: Regional Transit Service Planning that reflects changes to the roles and responsibilities of SANDAG and the two transit agencies in the regional transit planning and implementation process.

Discussion

In December 2004, the Transportation Committee expressed its desire to streamline the public hearing and service implementation process between the transit agencies and SANDAG, and to shift the details of transit planning and implementation to the transit agencies, leaving SANDAG to oversee the policy framework and operating standards. SANDAG’s role would focus on achieving a transit system with far-reaching impacts related to land use coordination and regional mobility in accordance with the plans, policies, and goals contained within the Regional Comprehensive Plan (RTP), the Regional Transportation Plan (RTP) and the Regional Short Range Transit Plan (RSRTP).

In February 2005, the Transportation Committee endorsed revisions to SANDAG Policy No. 18: Regional Transit Service Planning that reflects desired changes. The key changes to the adopted policy are:
• The transit agencies would conduct the service change public hearings.

• Prior to a public hearing for transit service changes with regional significance, SANDAG would conduct an administrative review to determine that the service change proposals are consistent with regional policies, goals, and objectives, or make a finding of overriding considerations if service proposals are inconsistent with regional policies.

• Local and minor service changes would pass through SANDAG prior to a public hearing at the transit agencies to advise SANDAG on implementation actions planned by the transit agencies.

• Only those issues that result in a differing interpretation of consistency with regional plans, policies, goals, and objectives would be brought to the Transportation Committee for direction.

SANDAG’s role in conducting a consistency determination for proposed service changes with regionally significant implications is intended to ensure that the transit system is planned and implemented in a way that supports the Regional Comprehensive Plan, Regional Transportation Plan, and Regional Short Range Transit Plan, considers funding opportunities and constraints, is an effective use of regional resources, and promotes a regional transit system throughout the county. SANDAG will evaluate annually through the short-range transit planning process how well the RSRTP goals and objectives are being met by the transit system, and will conduct ongoing monitoring of the transit system performance through the Quarterly Transit Operating Reports and the Annual Performance Improvement Program to assess system productivity and efficiency.

BOB LEITER
Director of Land Use and Transportation Planning

Attachments

Key Staff Contact: Toni Bates, 619-699-6950, tba@sandag.org

Funds are budgeted in Work Element #90023
New Figure 1.1
Regional Transit Service Planning & Implementation Process

Step 1: Establish Policy Framework
- SANDAG
- Transit Agencies

Step 2: Develop Service Proposals & Plan
- SANDAG
- Transit Agencies

Step 3: Develop Budgets
- SANDAG
- Transit Agencies

Step 4: Implement Service
- SANDAG
- Transit Agencies

May-Jul
Regional Short Range Transit Plan
Service Planning Framework & Guidelines
- Goals and Objectives
- Needs and Deficiencies
- Parameters and Performance Standards
- Regional Consistency Checklist

Aug-Jan
Service Proposals
- New and Revised

RSRTP Adoption
- Consistency & Priority Determination
- Plan & Program Public Hearing

Regionally Significant Changes
Local & Minor Changes

Jan-Apr
Transit Operating Budget Development

SANDAG Approves Transit Agency Budgets for Funding
- Budget Public Hearing

Service Changes Occur Three Times a Year:
- Feb-Aug/Sep
- Nov-May/Jun
- May-Jan/Feb

May-Jul
Local & Minor Changes

Jan-Apr
Regionally Significant Changes

Step 4: Implement Service
- SANDAG
- Transit Agencies

Feb-Aug/Sep
Nov-May/Jun
May-Jan/Fe
REGIONAL TRANSIT SERVICE PLANNING

This policy specifies the transit service planning responsibilities of SANDAG (the consolidated agency) and the transit agencies (Metropolitan Transit System and North San Diego County Transit Development Board), and outlines a framework for transit service planning. Figure 1.1 includes a flow chart, based on the framework, that documents the processes for transit planning and implementation, the delivery of services for new services and adjustments to existing services.

This policy will allow the transit system to quickly and efficiently respond to changes in travel demand and operating/fiscal environment, while ensuring that the system is adjusted and developed consistent with longer range regional transportation and land use goals as incorporated into the Regional Comprehensive Plan, the Regional Transportation Plan, and the Regional Short-Range Transit Plan (RSRTP). As a result, transit service revisions that relate directly to implementation of regional policies, goals, and objectives (service changes with regionally significant service changes) are generally those that:

• **Service Support** regional travel demand corridors that cross transit agency jurisdictional boundaries;

• Significantly affect passenger inter-jurisdictional trip making (i.e., are inconsistent with as defined by the guidelines contained in the RSRTP; for example, would be found to potentially have a detrimental impact on geographic connections, timed transfers, and the frequency/service span consistency of such services); and

• Require additional regional operating funds above the overall transit agency-adopted budget and projected budget capacity.

1. **Agency Responsibilities** - SANDAG Consolidated agency and transit agency responsibilities are described below and further specified in Figure 1.2. There is an inherent overlap of responsibilities between SANDAG the consolidated agency and the transit agencies in conducting transit service planning, as exhibited in Figure 1.2. Therefore, all transit service planning responsibilities should be conducted, whenever possible, in coordination and consultation between SANDAG the consolidated agency and the transit agencies.

1.1 **Consolidated Agency-SANDAG Responsibilities** - carried out in collaboration with the transit agencies:

1.1.1 Preparation of long-range transit plans as part of the Regional Transportation Plan (RTP).

1.1.2 Annual preparation of a five-year RSRTP that: (1) established the goals and objectives for short-range transit services; (2) defines the existing transit
The consolidated agency SANDAG will initially maintain the existing service concepts upon which the service is based in order to preserve and improve mobility. FY 2003 budgeted revenue hours/miles will be considered as minimum levels of service for each Transit Board and will assume net service levels to be added upon completion of the Oceanside to Escondido and Mission Valley East rail projects. If future funding shortfalls occur, necessitating cutbacks in service, then there will be a regionwide process of examination of service levels, protecting a “lifeline” system of services.

1.1.3 Conduct regional and subarea planning studies as prioritized in the RSRTP, RTP (Regional Transportation Plan), and RCP (Regional Comprehensive Plan).

1.1.4 Develop proposals for regionally significant service adjustments, with regional significance in response to changes in regional travel demand, to address regional service gaps and deficiencies, and to implement plans and programs identified in long-range Regional Transportation and Regional Comprehensive Plans and the RSRTP.

1.1.5 Develop proposals for new and revised services to be included in the Regional Service Implementation Plan.

1.1.6 Ensure that all new and revised services and service adjustments of regional significance are consistent with the goals and objectives of the RSRTP.

1.1.7 Coordinate with transit agencies to provide community outreach and conduct market research.

1.1.8 Conduct regional performance monitoring to provide input into the RSRTP and other short-range transit studies. The regional performance monitoring will be based on the type of service and type of service area. Any net service reduction in a specific transit agency area resulting from the service evaluation process that takes that Board below its FY 03 service level (pursuant to Section 1.1.2) will be reprogrammed to that transit agency service area for other improvements up to the FY 03 base level of service.

1.1.9 Provide technical assistance to transit operators for local route planning.
1.1.10 Develop a public input process and hold required public hearings for service changes. The consolidated agency should ensure that the public input process for public hearings on service changes would be conducted in a manner to facilitate public input from the affected area.

1.1.11 Develop a Regional Fare Policy that incorporates a uniform fare structure, a transfer policy, and agreement for revenue sharing of regional tickets, tokens, and passes, while also allowing the consolidated agency to adopt specialized fare procedures for travel within each operator’s service area. Additionally, adopt the Comprehensive Fare Ordinance setting forth all fares for all operators, including their special fares.

1.2 Transit Agencies Responsibilities – carried out in collaboration with SANDAG the consolidated agency:

1.2.1 Develop service and schedule adjustments to ensure system optimization and to respond to immediate operational issues (e.g., detours, overcrowding, on-time performance, and minor out-of-direction routing changes).

1.2.2 Conduct local transit studies and analyses within the transit agency’s service area in response to changes in local travel demand, to address service gaps and deficiencies, to develop service reductions/efficiencies, to address operating budget deficits, and to address goals and implement plans developed in the RSRTP.

1.2.3 Develop proposals for new and revised services to be included in the Regional Service Implementation Plan (RSIP).

1.2.4 Develop proposals to reallocate unproductive resources to implement unfunded services identified as high priority in the Regional Service Implementation Plan or consistent with the RSRTP guidelines.

1.2.5 Develop a public input process and hold required public hearings for service changes. The transit agencies should ensure that the public input process for public hearings on service changes would be conducted in a manner to facilitate public input from the affected area.

1.2.6 Coordinate with consolidated agency SANDAG to provide community outreach and conduct market research.

1.2.7 Develop operating plans for special event transit service and service contingencies.

1.2.8 Monitor existing operations and services to provide input into service analyses and short-range transit studies.

1.2.9 Conduct bus stop location planning.
1.2.9 Service implementation, including scheduling, run-cutting, operations, contract services, service management, and labor contract administration.

1.2.10 Provide input on long- and short-range transit plans, and regional performance monitoring.

2. Transit Service Planning Framework - This framework allows the transit system to quickly and efficiently respond to changes in travel demand and operating/fiscal environment, while ensuring that the system is adjusted and developed consistent with longer range regional transportation and land use goals.

Step 1: Guidance

An RSRTP, consistent with SANDAG’s Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP), will be drafted annually by SANDAG, in consultation with the transit agencies. The RSRTP will establish goals and objectives and provide guidance for service planning during the upcoming year and will balance the immediate needs of optimizing the transit system in response to operational and financial constraints, with the mid- and long-range system development goals established in the long-range plans.

Step 2: Develop Service Adjustments

Throughout the year, transit agency and SANDAG staff develop proposals, in accordance with the RSRTP, to adjust existing services and develop new services. These service adjustments help to optimize existing services, reflect changes to the operating and fiscal environment, respond to customer comments and requests, and begin to implement and support services envisioned in the long-range plans. Service adjustments can be a result of such things as schedule analysis, trip and route level evaluation, and subregional and regional transit studies. Regionally significant service adjustments with regional significance should be developed as collaborative efforts between SANDAG and transit agency staff.

Step 3: Evaluation and Approval

Prior to approval for implementation, all service adjustments should be:

- Consistent with the RSRTP;
- Presented for public hearing in the impacted service area if required by SANDAG, appropriate transit agency, or by Federal Transit Administration (FTA) policies and regulations; and
- Fully funded either through a reallocation of resources or as part of the budget process.

Regionally significant service adjustments with regional significance should be endorsed by the appropriate transit agency and determined to be consistent with regional policies, goals.
and objectives by SANDAG approved by SANDAG's Transportation Committee prior to public hearing and implementation, while local and minor all other service adjustments may be approved for implementation at the sole discretion of the transit agencies after advising SANDAG of the proposed changes.

Step 4: Implementation

As a general practice, service changes should be implemented during a regularly scheduled service change date (scheduled for winter, fall, and summer). Implementation should be preceded by community outreach, a marketing campaign, and public notices, as appropriate. Service implementation is the responsibility of the transit agencies.

Step 5: Monitoring

Performance monitoring will be conducted on an ongoing basis to evaluate new and existing services as well as newly implemented and service adjustments. SANDAG will monitor the transit system performance on a systemwide and transit agency level on an annual and quarterly basis, and at the route level on an annual basis. Transit agencies will monitor their operations performance on an annual, quarterly, and monthly basis, as appropriate. Performance measures will evaluate productivity, cost-effectiveness, and quality of service. Performance results will be used as a basis for developing the RSRTP, and other planning studies and analysis.

3. Policy Review – This policy was reviewed and revised by SANDAG, in collaboration with the transit agencies in March 2005. It shall be reviewed again by SANDAG, in collaboration with the transit agencies after one year, in the spring fall 2005.

Attachments: Figure 1.1 – Proposed Regional Transit Service Planning and Implementation Process
Figure 1.2 – Roles and Responsibilities for Service Planning Activities

Revised March 25, 2005
**Delete and Replace with New Figure 1.1**

**FIGURE 1.1**

**PROPOSED SERVICE PLANNING PROCESS (NEW SERVICES)**

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Lead Agency</th>
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<tbody>
<tr>
<td>March - July</td>
<td>SANDAG</td>
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<tr>
<td>August - Sept.</td>
<td>Transit Agency, SANDAG</td>
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<tr>
<td>September - Dec.</td>
<td>SANDAG</td>
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<td>Jan - June</td>
<td>SANDAG</td>
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<tr>
<td>Aug/Sept, Jan, May/June</td>
<td>Transit Agency</td>
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<tr>
<td>Ongoing</td>
<td>SANDAG, Transit Agency</td>
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</table>

**Develop Part I of annual SRTP – Service Planning Guidance, including:**
- Existing Conditions;
- Evaluate existing services and programs;
- Identify service gaps and deficiencies;
- Establish parameters for short range (0-5 years) service development and adjustment;
- Regional consistency checklist.

**Develop new service proposals for consideration.**

**Develop Part II of annual SRTP – Regional Service Implementation Plan, including:**
- New service evaluation methodology;
- Prioritized list of service proposals.

**Budget/funding process**
- Identify available funding or funding deficits;
- Public hearing on service changes;
- Adopt Regional Service Implementation Plan.

**Operating Budgets**
- Prepare to reflect funded services.

**Implementation of new service.**

**Performance Monitoring**
- Annual route monitoring;
- Quarterly operations evaluation;
- TDA Performance Improvement Program;
- Transit agency performance reporting.
**PROPOSED SERVICE PLANNING PROCESS (ADJUSTMENTS TO EXISTING SERVICES)**

**Schedule**

- **March - July**
  - Develop Part I of annual SRTP - Service Planning Guidance, including:
    - Existing Conditions;
    - Evaluate existing services and programs;
    - Identify service gaps and deficiencies;
    - Establish parameters for short-range (0-5 years) service development and adjustment;
    - Regional consistency checklist.
  - Lead Agency: SANDAG

- **Ongoing**
  - Develop minor service adjustments.
  - Lead Agency: Transit Agency
  - Develop regionally significant service adjustments.
  - Lead Agency: SANDAG, Transit Agency

- **Ongoing**
  - Ensure consistency with SRTP.
  - Lead Agency: SANDAG

- **Ongoing**
  - Transit Agency public hearing/approval.
  - Transit Agency approval, SANDAG public hearing, approval.
  - Lead Agency: Transit Agency, SANDAG

- **Aug/Sept, Jan, May/June**
  - Implementation of service change.
  - Lead Agency: Transit Agency

- **Ongoing**
  - Performance Monitoring
    - Annual route monitoring;
    - Quarterly operations evaluation;
    - TDA Performance Improvement Program;
    - Transit agency performance reporting.
  - Lead Agency: SANDAG, Transit Agency
Step 1: Establish Policy Framework
SANDAG
Transit Agencies

Service Proposals
-New and Revised

RSRTP Adoption
-Consistency & Priority Determination
-Plan & Program Public Hearing

Step 2: Develop Service Proposals & Plan
SANDAG
Transit Agencies

Transit Operating Budget Development

SANDAG Approves Transit Agency Budgets for Funding
-Budget Public Hearing

Step 3: Develop Budgets
Transit Agencies

Administrative Review of Service Consistency or Finding of Overriding Considerations
(Refer to Transportation Committee, if necessary)

Step 4: Implement Service

Public Hearings
-At Transit Agencies

Report to SANDAG Transportation Committee
-only if public hearing results in a new service proposal

Implement Service
-driver assignments
-bus stop preparation
-timetable printing

Service Changes Occur Three Times a Year:
Feb-Aug/Sep
Nov-May/Jun
May-Jan/Feb

Regional Short Range Transit Plan Service Planning Framework & Guidelines
-Goals and Objectives
-Needs and Deficiencies
-Parameters and Performance Standards

May-Jul

Aug-Jan

Jan-Apr

May-Jul

New Figure 1.1
Regional Transit Service Planning & Implementation Process
**Delete and Replace with New Figure 1.2**

**FIGURE 1.2**

**ROLES AND RESPONSIBILITIES FOR SERVICE PLANNING ACTIVITIES**

<table>
<thead>
<tr>
<th>POLICY AND GUIDANCE</th>
<th>SANDAG</th>
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<tbody>
<tr>
<td>Regional Transportation Plan (RTP)</td>
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<tr>
<td>Short-Range Transit Plan (SRTP)</td>
<td>Lead</td>
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<td>Subarea Studies</td>
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<tr>
<td>Developer Plan Review - land use, regional plan conformity</td>
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<tr>
<td>Developer Plan Review - community liaison</td>
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<tr>
<td>Market Research</td>
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<tr>
<td>Transit Liaison to Communities</td>
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<tr>
<td>Respond to Community Service Requests***</td>
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***Activities coordinated via the staff-level Planning, Operations, and Marketing Coordination Committee

- Lead - Primary or Lead Function
- Support Function
**FIGURE 1.2**

**ROLES AND RESPONSIBILITIES**

**FOR SERVICE PLANNING AND IMPLEMENTATION Activities**

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DRAFT FY 2005-2009 REGIONAL SHORT RANGE TRANSIT PLAN

Introduction

The Regional Short Range Transit Plan (RSRTP) is prepared annually to support the MOBILITY 2030 vision by providing the short-term policy framework and plan for transit system adjustments and improvements regionwide. This year’s draft RSRTP has been prepared in coordination with the Metropolitan Transit System (MTS) and North San Diego County Transit Development Board (NCTD) in accordance with the guidelines provided in SANDAG Policy No. 18, Regional Transit Service Planning. In December 2004, the Transportation Committee endorsed the goals and objectives for this year’s RSRTP. The draft RSRTP is now ready for review by interested parties prior to adoption by the Transportation Committee. This report summarizes the key elements of the FY 2005-2009 RSRTP and describes the review process leading to its adoption.

Recommendation

It is recommended that the Transportation Committee accept for distribution the draft FY 2005-2009 Regional Short Range Transit Plan for a 45-day review period and schedule a public hearing on the plan for April 15, 2005.

Discussion

Plan Purpose and Organization

The purpose of the RSRTP is to define the existing transit system, evaluate existing services and programs, identify transit system needs and deficiencies, establish parameters for new service development, evaluate and establish priorities for new and revised service proposals, and identify future areas of study.

The RSRTP is organized as follows:

- Chapter 1 provides an introduction to the plan and describes the role of the plan in the regional planning process.

- Chapter 2 presents SANDAG’s strategic vision for the future of transit in the San Diego region, and describes the process and guidelines governing transit service planning and development in the region.
• Chapter 3 describes the existing and potential travel demand over the next five years for transit in the San Diego region, including population and employment growth, major activity centers, travel patterns, and changing demographics.

• Chapter 4 provides a description of the existing transit services in the region, and identifies challenges and opportunities facing transit provision in the region.

• Chapter 5 presents the goals and objectives to guide transit planning and development for the next five years, and evaluates the region’s transit system in meeting them.

• Chapter 6 identifies the unmet transit needs in the region and the FY 2006 service proposals (and funding status) to address these needs.

Plan Development

The goals and objectives for this year’s RSRTP were endorsed by the Transportation Committee in December 2004 and are included in Attachment 1. In general, the goals and objectives address:

• Regional Transit System Development
• System Productivity
• Capital Investments
• Network Connectivity
• Travel Demand
• Customer Experience
• Smart Growth
• Financial Sustainability

The goals and objectives, along with the identified needs and deficiencies, guide the development of the service proposals put forth by MTS, NCTD, and SANDAG for consideration. The service needs and deficiencies are shown in Attachment 2 and are included in Chapter 6 of the plan.

In accordance with Policy No. 18 (including the recent revisions being considered by the Transportation Committee under Agenda item no. 6), SANDAG’s responsibility focuses on establishing the goals and objectives for the RSRTP and transit system, setting parameters for new and revised transit services, and ensuring consistency of transit system and service changes with regional policies, goals, and objectives. The RSRTP includes a set of criteria to help SANDAG determine the consistency of service proposals with the long- and short-range regional policies, goals, and objectives as follows:

• Does the change require additional operating subsidies not currently budgeted?
• Does the change address an identified gap or deficiency in the transit system?
• Does the change improve or degrade transit network connectivity (e.g., timed transfers, connections to regional services, etc.)?
• Is the change contingent on a significant reallocation of financial resources from another service?
• Does the change enhance or reduce service to a major transit capital facility (i.e., rail line, transit center)?

• Does the change enhance or reduce service to Smart Growth areas?

• Is the change consistent with SANDAG’s adopted plans, policies, and guidelines?

Service proposals impacting one or more of the above criteria are considered to have regional significance. Those that are consistent with adopted regional policies, goals, and objectives are included in the RSRTP. Attachment 3 provides tables from the plan that summarize the FY 2006 service proposals and their consistency evaluation.

FY 2006 Regional Service Implementation Plan

Unfortunately, as has been the case for the last several years, no additional funds are expected to be available for transit services in FY 2006. The transit agencies will receive regional operating funds in the same proportion as in the past. As a result, this year no regional priorities for the service proposals have been established, since implementation is dependent on each transit agency’s ability to implement the services within available funding levels. The service proposals focus on fine-tuning the system and restructuring services for the opening of the Mission Valley East light rail extension this summer (which a projected to result in operating subsidy savings). Service proposals include:

MTS Area:

• Mission Valley East connectors
• Frequency improvements
• New service in San Ysidro/Otay Mesa

NCTD Area:

• Frequency improvements
• Extended hours
• Added Coaster Connection trips
• Coaster Rail2Rail and Petco Park service
• New circulators

More substantial changes are anticipated for next year’s RSRTP as the results of the MTS Comprehensive Operations Analysis (COA) are programmed for implementation.

Review Process and Schedule

The complete Draft FY 2005-2009 RSRTP is included in Attachment 4. Over the next two months, the plan will be reviewed by the staff and boards of the transit agencies and the public, leading to its adoption by the Transportation Committee. The schedule for this process is outlined below.
March 10, 2005  MTS Board Review of RSRTP
March 14, 2005  SANDAG Notice of Public Hearing
March 17, 2005  NCTD Board Review of RSRTP
April 15, 2005  Transportation Committee Public Hearing and Plan Adoption
April 15-29, 2005  Revise as Needed, Print and Distribute Adopted FY 2005-2009 RSRTP

BOB LEITER
Director of Land Use and Transportation Planning

Attachments

Key Staff Contact: Toni Bates (619) 699-6950, tba@sandag.org
## FY 2005-2009 Regional Short Range Transit Plan
### Transit Service Goals and Objectives

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objectives</th>
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<tbody>
<tr>
<td><strong>Regional Transit System Development</strong> – Transit service should strive to address needs and deficiencies in the regional transit system.</td>
<td>• Eliminate one or more transit deficiencies identified in the FY 2005-2009 RSRTP and/or meet individual transit agency performance goals.</td>
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</tbody>
</table>
| **System Productivity** – Transit service should strive to improve system productivity. | • Reduce duplication of services (i.e., routes, schedules).  
• For new and revised services, at least meet minimum productivity standards (to be defined through the RSRTP service evaluation process) for similar types of services.  
• Optimize the amount of service provided within available funding.  
• Improve operational efficiency through the Productivity Improvement Program and related efforts.  
• Facilitate and promote strategies to provide priority for transit operation on streets and highways.  
• When required by funding constraints, develop service reductions that minimize impacts to current passengers, maintain service throughout the region where demand is demonstrated, and maintain network connectivity to the extent possible. |
| **Capital Investments** – Transit service should support major transit capital facilities and investments. | • Provide high levels of transit service to regional transit centers and regional transit services (i.e., rail and bus rapid transit services) in concert with local transit service needs. |
| **Network Connectivity** – Transit service should maximize network connectivity. | • Maintain and enhance timed transfers at high-volume transfer locations, particularly to regional services and at transit centers.  
• Support local and regional travel demand through provision of transit services unconstrained by jurisdictional boundaries. |
| **Travel Demand** – Transit service should meet travel demands. | • Provide appropriate levels of transit service (frequency and span) to sufficiently accommodate demand.  
• In general, provide higher frequencies during peak travel periods.  
• Plan transit service improvements and revisions with input from the riders, the public, and the community. |
| **Customer Experience** – Transit service should provide a positive customer experience. | • Provide transit service routing that is as direct as possible (i.e., avoid out-of-direction travel while balancing directness with access).  
• Provide as fast and reliable a transit service as possible. |
| **Smart Growth** – Transit service should support Smart Growth areas. | • Take advantage of opportunities presented by existing and planned Smart Growth developments when adding or revising transit services, as appropriate and feasible. |
| **Financially Sustainable Plan** – Transit operating expenditures should be sustainable over time. | • The annual budget should be balanced and rely on available funding without dipping into reserves or depending on non-recurring sources of revenue.  
• Service levels and operating expenses should match available revenue.  
• New ongoing revenue streams should be put in place. |
Fiscal Year 2005-2009 Regional Short Range Transit Plan
Transit System Needs and Deficiencies

MTS Service Area Gaps

• Mid-City to Mission Valley – While a significant amount of service is provided in Mid-City and Mission Valley, there is little direct service connecting these two areas. Changes to Route 13 to be implemented with the opening of the Mission Valley East light rail extension in summer 2005 will provide more direct service between these two areas.

• Euclid/Southeast San Diego to National City Area – The limited service span and frequency of Route 603 between the Euclid Avenue Trolley Station and Plaza Bonita severely restricts Euclid and Southeast San Diego residents from accessing adjacent communities and using regional services at night and on weekends.

• Internal Travel within National City Area – Service is limited on the three National City Transit services (Routes 601, 602, and 603), which consistently prove to be some of the most productive services within the region’s transit system. In addition, there is currently no service to the industrial area on the west side of National City (west of Interstate 5).

• San Ysidro Service – Route 905 service should be expanded to provide more and better local service to address travel demand and provide connections to Otay Mesa.

• Late Night and Weekend Service on Express Routes – Enhanced service on existing express routes was identified as a primary unmet need in the recently completed Welfare to Work Transit Study. Focus groups of CalWORKs clients indicated that the same trip made on an express service during the weekdays would take nearly four times as long on the weekends.

• Enhanced Summer Service on Routes 9 and 34 – Travel to SeaWorld, Belmont Park, and the beaches of San Diego is greatly increased during the summer months. As a result of budget deficits, additional summer service has been discontinued, resulting in severely overcrowded trips and poor schedule reliability.

• Internal Travel within Downtown San Diego – As a result of new residential development, and changing travel patterns, transit services within, into, and out of downtown San Diego should be restructured to provide better internal circulation and more efficient interregional connections.

• South Bay to Old Town or Fashion Valley Transit Center Express – An express service from South Bay to Old Town or Fashion Valley Transit Center allowing existing passengers to bypass downtown congestion along Broadway should be provided. This service also would provide congestion relief along the north/south corridors in South Bay, and would address some of the capacity issues currently experienced on the Trolley’s Blue Line.
• Carmel Valley Service – As a result of the employment and residential development in the Carmel Valley area, including new affordable housing complexes, transit demand to and from this area is increasing. While employment is clustered along El Camino Real and High Bluff Drive, residential areas are difficult to serve due to the low density development and discontinuous street patterns. Service options include peak hour service to employment areas, connections with the Coaster at the Solana Beach Station, and a lifeline link between Carmel Valley residents and the regional transit network.

• Faster Service between La Jolla and Old Town or Downtown San Diego– The long travel time on local routes between these destinations could be reduced through the provision of new express service or a system of transit priority treatments.

• Schedule Coordination along I-15 Corridor – The numerous routes in this corridor tend to be scheduled to meet primary work schedules, and as a result, several buses arrive at stops in a short time period followed by long time gaps. A comprehensive review of travel demand and the services in the corridor is being conducted as part of the MTS Comprehensive Operations Analysis (COA).

• University Avenue Mobility Plan Restructuring – The community plan for the North Park area is being revised, and transportation enhancements for University Avenue are a key element. There are opportunities to enhance bus operations and the quality of bus stops in the area.

NCTD Service Area Gaps

NCTD has numerous improvement needs that were identified in last year’s RSRTP, as listed below. While some were addressed in 2004, many were not addressed due to budget constraints.

• Weekend Service on Coaster – Despite high demand, Coaster service operates limited hours on the weekdays, and even less service is provided on Saturdays. No Sunday service is currently provided. Due to budget constraints, no planning or implementation actions were taken for this service in 2004.

• Temecula to Escondido Express – The I-15 Interregional Partnership Project (IRP) has identified express transit service between Temecula and Escondido, as well as distributor shuttles at key destinations, as potential transportation solutions to the traffic congestion problem along Interstate 15 between Riverside and San Diego Counties. Due to budget constraints, no planning or implementation actions were taken for this service in 2004.

Based on a variety of factors including productivity, ridership, level of demand, cost-effectiveness, land use patterns, and other items, not all of these needs are equal. Some of them have higher priority than others. The assignment of priorities takes place as an interactive process between SANDAG and the transit agencies in the development of annual transit budgets.
Service Deficiencies

To enhance service for our existing riders and increase ridership on our transit system, we also must also address the following deficiencies in the quality of service:

- **Overcrowding** – Overcrowded buses generally occur during peak work and school hours of the day, and have a direct and indirect effect on ridership. Not only do they deter potential passengers from using the service, the capacity constraint limits ridership despite higher demand. Overcrowding can be addressed by increasing service levels where and when it is needed, or by restructuring adjacent routes to accommodate the additional demand. SANDAG and the transit operators should work together to address overcrowding issues as efficiently and effectively as possible.

- **Maintain and Improve Transfer Opportunities** – Timed connections at convenient locations allow riders to efficiently transfer between services and complete their trips in a timely manner. This concept is particularly important when service frequencies are low (greater than 15 minutes). As part of NCTD’s Fast Forward Plan, timed transfers were implemented at all key transfer locations to improve connections between services. MTS service schedules also are developed around a “pulse” concept in which all routes arrive and depart a transfer center at the same time, allowing for transfers between services to be coordinated and timed.

As a result of poor schedule reliability, as well as service and schedule adjustments, important timed transfers have been lost, requiring passengers to wait up to 60 minutes for the next bus. Since the Regional Transit Vision in MOBILITY 2030 is developed around a concept of interconnected services, it is important that timed transfer opportunities are maintained and improved at major regional transfer locations, including transit centers in El Cajon, Escondido, Euclid, Fashion Valley, Grossmont Center, H Street, Oceanside, Old Town, and University Towne Centre.
## FY 2005-2009 Regional Short-Range Transit Plan

### Service Proposals Consistency Determination

#### Service Change Consistency with RSRTP Goals and Objectives

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<th>PROPOSED SERVICE CHANGES</th>
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<td>New Service in San Ysidro/Otay Mesa</td>
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- Indicates consistency with criterion
## FY 2006 Regional Service Implementation Plan

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<th>Operator</th>
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<td><strong>Mission Valley East Service Changes</strong></td>
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<td>MTS</td>
<td>1</td>
<td>Extend to terminate at new 70th Street trolley station.</td>
<td></td>
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<td>$14,308</td>
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<tr>
<td>MTS</td>
<td>13</td>
<td>Restructure to provide service between Euclid and new SDSU trolley stations, and extend along Montezuma Road to 73rd Street and El Cajon Boulevard.</td>
<td></td>
<td></td>
<td>$132,283</td>
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<td>MTS</td>
<td>14</td>
<td>New route to serve the former Route 13 alignment in Mission Valley.</td>
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<td>(included with Route 13 figure)</td>
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<td>MTS</td>
<td>18</td>
<td>New route to replace Route 81 service between new Grantville and Rio Vista trolley stations.</td>
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<td></td>
<td>$120,693</td>
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<td>MTS</td>
<td>81</td>
<td>Discontinue with opening of Mission Valley East trolley line.</td>
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<td></td>
<td>($858,579)</td>
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<tr>
<td>MTS</td>
<td>876</td>
<td>Extend along Lake Murray Blvd. and Fletcher Parkway to replace a portion of Route 81.</td>
<td></td>
<td></td>
<td>$72,718</td>
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<tr>
<td>MTS</td>
<td>936</td>
<td>Extend to terminate at the new 70th Street trolley station.</td>
<td></td>
<td></td>
<td>($8,055)</td>
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<tr>
<td><strong>Other Changes</strong></td>
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<td>MTS</td>
<td>11</td>
<td>Increased frequency and longer span of service on weekday evenings between 8 pm to 11 pm on existing routing.</td>
<td>27</td>
<td>$1.67</td>
<td>$57,943</td>
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<td>MTS</td>
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<td>Weekday peak period frequency enhancement to every 15-minute on existing routing.</td>
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<td>$1.40</td>
<td>$230,400</td>
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<tr>
<td>MTS</td>
<td>815</td>
<td>Increase frequency from 60-minute to 30-minute Saturdays between 10:00 am and 5:30 pm only on existing routing.</td>
<td>33</td>
<td>$0.25</td>
<td>$3,246</td>
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<tr>
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<td>Pass/Hour</td>
<td>Sub/Pass</td>
<td>Annual Subsidy</td>
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<tr>
<td>MTS</td>
<td>905 West</td>
<td>New service Saturdays 6:30 a.m.-6:00 p.m. between San Ysidro/Tijuana and Iris Avenue trolley stations, with a few trips to Otay Mesa.</td>
<td>24</td>
<td>$0.49</td>
<td>$6,688</td>
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<td>MTS</td>
<td>908</td>
<td>Increase frequency from 30- to 15-minute on Saturdays 9:30 a.m.-5:30 p.m. on existing routing.</td>
<td>25</td>
<td>$0.62</td>
<td>$24,801</td>
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<td>MTS</td>
<td>929 South</td>
<td>Increase frequency from 30- to 15-minute on weekends 10:30 a.m.-5:30 p.m. between 8th Avenue and Iris Avenue trolley stations.</td>
<td>33</td>
<td>$0.59</td>
<td>$58,617</td>
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<tr>
<td>MTS</td>
<td>932 South</td>
<td>Increase frequency from 30- to 15-minute on weekends (7-hour period, roughly 10:30 a.m.-5:30 p.m.) between Bayfront/E Street and San Ysidro/Tijuana trolley stations.</td>
<td>36</td>
<td>$0.48</td>
<td>$54,295</td>
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<tr>
<td>MTS</td>
<td>936</td>
<td>15-minute frequency weekdays 6 a.m.-9 a.m. and 1 p.m.-5 p.m. between College Grove and 70th Street.</td>
<td>32</td>
<td>$0.71</td>
<td>$75,490</td>
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<td>MTS</td>
<td>955</td>
<td>Increase frequency from 30- to 15-minute on Saturdays 10:00 a.m.-5:00 p.m. on existing routing.</td>
<td>33</td>
<td>$0.62</td>
<td>$30,227</td>
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<tr>
<td>NCTD</td>
<td>303</td>
<td>15-minute service between 5:00 and 8:00 a.m., weekdays.</td>
<td>30</td>
<td>$0.78</td>
<td>$29,763</td>
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<tr>
<td>NCTD</td>
<td>303</td>
<td>15-minute service 7:70 a.m. and 2:00 p.m., weekdays.</td>
<td>22</td>
<td>$1.37</td>
<td>$191,764</td>
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<td>NCTD</td>
<td>COASTER</td>
<td>Renew Rail2Rail Program, all days.</td>
<td>150</td>
<td>$13.47</td>
<td>$161,600</td>
</tr>
<tr>
<td>NCTD</td>
<td>Carlsbad Coaster Connection Palomar South</td>
<td>Provide five trips to meet COASTER on weekdays.</td>
<td>8</td>
<td>$1.99</td>
<td>$20,247</td>
</tr>
<tr>
<td>NCTD</td>
<td>COASTER</td>
<td>Continue later evening Petco Park service, summer weekdays only.</td>
<td>125</td>
<td>$2.60</td>
<td>$65,000</td>
</tr>
<tr>
<td>Operator</td>
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<td>Pass/Hour</td>
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</tr>
<tr>
<td>NCTD</td>
<td>Carlsbad Village Coaster Connection</td>
<td>Add five morning and afternoon trips.</td>
<td>10</td>
<td>$1.07</td>
<td>$13,665</td>
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<tr>
<td>NCTD</td>
<td>388</td>
<td>Improve to 90-minute frequency, weekdays.</td>
<td>15</td>
<td>$2.72</td>
<td>$155,794</td>
</tr>
<tr>
<td>NCTD</td>
<td>Plaza Camino Real Shopping Shuttle</td>
<td>New circulator from Plaza Camino Real to Pacific Coast Plaza and El Camino North Shopping Center, 60-minute service in both directions between 9:00 a.m. and 5:00 p.m., seven days a week.</td>
<td>16</td>
<td>$3.24</td>
<td>$302,854</td>
</tr>
<tr>
<td>NCTD</td>
<td>Solana Beach to Sorrento Valley Coaster Station</td>
<td>New route from Del Mar Highlands to Sorrento Valley COASTER Station and UTC. 15-minute service weekdays between 5:30 a.m. and 8:30 p.m. Saturday service from 9:00 a.m. to 6:00 p.m.</td>
<td>10</td>
<td>$6.68</td>
<td>$535,845</td>
</tr>
<tr>
<td>NCTD</td>
<td>C-Side Shuttle Coaster Connection</td>
<td>Add nine weekday trips from Del Mar Heights and Solana Beach to Solana Beach COASTER Station between 5:00 and 8:00 a.m., and 4:00 to 7:00 p.m.</td>
<td>8</td>
<td>$11.00</td>
<td>$246,832</td>
</tr>
<tr>
<td>NCTD</td>
<td>338</td>
<td>Extend all trips to Quarry Creek Shopping Center, weekdays and Saturdays.</td>
<td>12</td>
<td>$0.10</td>
<td>$422</td>
</tr>
<tr>
<td>NCTD</td>
<td>347</td>
<td>New 120-minute frequency from 8:00 a.m. and 6:00 p.m., Sundays/holidays.</td>
<td>5</td>
<td>$13.07</td>
<td>$37,980</td>
</tr>
<tr>
<td>NCTD</td>
<td>347</td>
<td>Restore 60-minute service on Saturdays.</td>
<td>5</td>
<td>$8.98</td>
<td>$21,005</td>
</tr>
<tr>
<td>NCTD</td>
<td>Poinsettia Station via Alga Road to Palomar College Transit Center</td>
<td>Add 60-minute service between 5:30 a.m. and 8:30 p.m. weekdays. Add 11 trips from 6:30 a.m. and 7:30 p.m.</td>
<td>11</td>
<td>$3.59</td>
<td>$532,628</td>
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<tr>
<td>NCTD</td>
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<td>Extend service from 7:00 p.m. to 9:00 p.m., weekdays.</td>
<td>6</td>
<td>$7.34</td>
<td>$44,913</td>
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DRAFT
FY 2005-2009
REGIONAL SHORT-RANGE
TRANSIT PLAN

March 4, 2005
The 18 cities and county government are SANDAG serving as the forum for regional decision-making. The Association builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region’s quality of life.

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Hon. Luis Cabrera Cuaron  
Consul General of Mexico  

As of February 5, 2005
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CHAPTER 1: INTRODUCTION

With its warm weather and superb quality of life, San Diego County has become one of the most attractive and fastest growing regions in the country. Over one million new people and half a million new jobs are anticipated over the next 30 years. With this growth come the byproducts of a healthy economy. Unchecked, streets and freeways will become more congested, commute times will increase, and people will be traveling longer distances.

MOBILITY 2030, San Diego’s blueprint for its transportation system, envisions a truly multimodal transportation network that will support our future mobility needs. With a heavy emphasis on developing a world-class transit system to support “smart growth” communities with higher-density and mixed-use development, nearly one half of the region’s transportation investments over the life of the TransNet Extension ordinance will help fund projects that improve or support the regional transit system.

While it is important to develop new transit services to support the region’s growth, it is equally important to maintain and optimize the existing system to address current travel demands, improve the quality of service for our existing riders, and enhance its appeal to new rider markets. In this era of fiscal constraints and increasing operating costs, we are faced with hard decisions on how best to balance the vision of transit in the future with the fiscal and operational reality of today.

WHAT IS THE REGIONAL SHORT-RANGE TRANSIT PLAN?

The Regional Short-Range Transit Plan (RSRTP) proposes how the region should balance the short-term needs of maintaining and optimizing existing services, while beginning to implement the long-term transit vision identified in MOBILITY 2030. As such, the RSRTP provides a framework for transit system development over the next five years. Previously, North San Diego County Transit Development Board (NCTD) and the Metropolitan Transit Development Board (MTDB) prepared separate SRTPs for their respective jurisdictions. As a result of Senate Bill 1703 (Peace), the San Diego Association of Governments (SANDAG) has assumed the transit planning oversight and programming and construction responsibilities for the region, including the preparation of a consolidated RSRTP. The FY 2005-2009 RSRTP provides the framework and guidelines for consolidated transit planning throughout the region, reflecting the goals and direction for transit service development as described in MOBILITY 2030.

The RSRTP serves six primary purposes:

1. It establishes regional guidelines for short-range transit improvements and adjustments within the context of the Regional Transportation Plan and Regional Transit Vision;

2. It defines the goals and objectives for transit service and capital development;

3. It provides an evaluation of current and future travel demand, the existing transit system, and identifies deficiencies and gaps in service;

4. It prioritizes operating expenditures to maintain and improve the regional transit system;

5. It supports SANDAG’s Capital Improvement Program (CIP), as well as state and federal grant applications; and
6. It coordinates with and guides the Transportation Development Act (TDA) claims approval process and the MTS and NCTD budget development processes.

WHERE DOES THE RSRTP FIT IN THE REGIONAL PLANNING PROCESS?

As the metropolitan planning organization (MPO) and regional transportation planning agency (RTPA), SANDAG is responsible for developing long-range strategic plans, including the Regional Comprehensive Plan (RCP) and the Regional Transportation Plan (RTP). As the region’s vision for growth, the RCP focuses on addressing and balancing the interconnected issues of achieving more walkable and mixed-use communities, greater housing supply and affordable housing, a healthy ecosystem, a prosperous economy, better coordination on borders issues, and greater transportation choices to reduce the dependence on automobiles.

To support this vision, SANDAG’s RTP, MOBILITY 2030, provides a blueprint for the development and management of a multimodal transportation system over the next 30 years. As the transportation component of the RCP, MOBILITY 2030 provides the foundation for better land use coordination, system management, demand management, and multimodal system development. The plan includes a five-year, $25 million Smart Growth incentive program to foster the integration of smart growth land uses and transportation facilities, acknowledging the need for better land use and transportation coordination to more efficiently and effectively serve the region’s communities and businesses. System management through the use of high-occupancy toll (HOT) lanes, advanced technology, and programs such as the Freeway Service Patrol (roving tow trucks aimed at easing congestion by removing disabled vehicles from freeways during rush hours) will maximize the efficiency of the transportation infrastructure. RideLink, the region’s transportation demand management program, and the Congestion Management Program will be used to manage travel demand during peak hours.

Finally, MOBILITY 2030 outlines an investment strategy that balances the development of automobile and transit infrastructure for a truly multimodal transportation system. Nearly one half of the transportation investments identified in the plan are focused on improving and supporting the region’s transit system, including the development of a network of high-occupancy-vehicle (HOV) lanes, managed lanes (lanes for carpools, buses, and paying single-occupant automobiles), several high-speed and reliable transit services to connect San Diegans to major employment and activity centers, and advanced technology that enhances the travel experience for riders. MOBILITY 2030 is based on a reasonably-expected revenue scenario, which includes the extension of the region’s half-cent sales tax for transportation projects through 2048 (confirmed by the passage of the TransNet Extension in November 2004), and other public funding is increased based on historical trends. The RTP also includes a revenue-constrained and unconstrained scenario.

The RSRTP supports the vision of MOBILITY 2030 by providing guidelines, goals, and a short-term (five years) plan for transit system adjustments and enhancements. As a revenue-constrained plan, the RSRTP identifies and establishes priorities for specific service, operational, and capital improvements that balance the goals of maintaining a productive and cost effective transit system with implementing enhancements envisioned in MOBILITY 2030. These improvements are then forwarded to the annual budget process for adoption. The short-term nature of the RSRTP allows SANDAG the opportunity to annually adjust these investment priorities between maintenance and enhancements based on system monitoring, available funding, and operational constraints.
ABOUT THIS RSRTP

The contents of this RSRTP are organized into the following six chapters:

- Chapter 1 provides an introduction to the RSRTP, and describes the role of the RSRTP in the regional planning process.

- Chapter 2 presents SANDAG’s strategic vision for the future of transit in San Diego, and describes the processes and guidelines governing transit service planning and development in the region, including guidelines for short-range service development.

- Chapter 3 describes the existing and potential travel demand for transit in San Diego, including population and employment growth, major activity centers, travel patterns, and changing demographics.

- Chapter 4 provides a description of the existing transit services in the region, and identifies challenges and opportunities facing transit provision in the region.

- Chapter 5 presents the goals and objectives guiding transit planning and development for the next five years, and evaluates the region’s transit system in meeting them.

- Chapter 6 identifies the unmet transit needs in the region and the FY 2006 service adjustments identified to address these gaps and deficiencies.

In addition to this document, a complementary Technical Appendix presents the following:

- History of SANDAG, MTDB, NCTD, and MTS (Appendix A);
- Inventory of the existing transit system, including services, rolling stock, and capital facilities (Appendix B);
- FY 2005 Transportation Development Act (TDA) Performance Improvement Recommendations (Appendix C);
- FY 2004 operating statistics by route (Appendix D);
- Historical operating statistics by transit operator (Appendix E);
- Title VI assessment (Appendix F);
- MTS and NCTD Service Improvement Details (Appendix G).

PUBLIC INFORMATION AND OUTREACH

Information on the RSRTP, MOBILITY 2030, RCP, and other SANDAG programs is available at www.sandag.org. Outreach efforts for the RSRTP will be consistent with SANDAG Policy No. 25, Public Participation/Involvement Policy. This policy covers the public participation and public information efforts in development planning, design and construction, transit service, and fare changes. Applicable applications for the RSRTP include outreach efforts, the use of press releases, Web site updates, and opportunities to address the SANDAG Board of Directors.
CHAPTER 2: GUIDING PRINCIPLES

REGIONAL TRANSIT VISION

Although more than 320,000 daily trips are made on the region’s bus, trolley, and rail services, transit trips account for approximately 3 percent of all the region’s trips. However, close to 20 percent of peak-period trips to downtown San Diego are made by transit and approximately 16 percent of trips in the downtown to International Border corridor are on transit, indicating that in areas where a high level of transit service is provided, transit can accommodate a significant portion of travel demand. Still, with a relatively short duration of peak-period congestion, ample parking, limited or no transit service to developing parts of the region, and an automobile-oriented land use pattern, there is little doubt as to why the majority of trips are made by single-occupant vehicles. In fact, the most recent survey of transit riders indicates that the majority of regular riders use transit because they have no other travel alternative. But, when transit is competitive with the auto and/or meets traveler needs, a higher percent take transit. For example, nearly 90 percent of the riders on the 800-series commuter express routes (traveling on the I-15 HOV lane) have an auto available for their travel, and for the Coaster the figure is over 80 percent. In addition, the COASTER provides the equivalent of an extra lane on I-5 at peak times, thereby enhancing transportation capacity in the corridor.

With the significant population growth projected over the next 30 years, public transportation will need to play an increased role in serving San Diego’s mobility needs. As the region grows, so will the demand on its land use and transportation infrastructure. In some instances, people will be living further and further away from their jobs. As the length and duration of their commutes increase, so will the geographic extent and duration of congestion. In other cases, urban villages will be developed that will promote walking, biking, and transit for commute as well as non-commute trips. To effectively address the increased congestion and travel demand from this growth, the region must focus appropriate levels of investment towards enhancing and expanding the transit system consistent with travel demand and in a way to entice new traveler markets to transit.

The SANDAG Board adopted the Regional Transit Vision (RTV) in late 2001, which was incorporated into the Mobility 2030 Regional Transportation Plan in April 2003, to help guide the future development of transit in the San Diego region. The RTV was developed as a collaborative effort between SANDAG, MTDB, NCTD, Caltrans, local jurisdictions, and a 50-member Citizens Advisory Committee for Transportation. In addition, extensive market research was conducted throughout the region to learn more about the attitudes and preferences that influence San Diegans’ daily travel choices. This research identified three primary service qualities important to residents: (1) speed and flexibility, (2) travel experience, and (3) personal safety.

Service Concept

Based on input from partner agencies and the public, SANDAG developed the RTV as a network of fast, flexible, reliable, safe, and convenient transit services that link residential areas with major employment and activity centers. This network is comprised of four service concepts: neighborhood, local, corridor, and regional. A description of each concept follows (see Figure 2.1).
Neighborhood Services
This service type is designed to facilitate community-level trip making and would provide neighborhood circulation, feeder access to medium- and long-distance services, and/or specialized service (e.g., for senior citizens unable to drive). Neighborhood services would likely use vehicles that are smaller than traditional buses, and have an average stop spacing of 1/4 mile.

Local Services
This service type will serve local trip needs, resulting in lower travel speeds (10 to 15 mph) and more frequent stops (1/4 to 3/8 mile average spacing). These services are designed as the basic mobility network for the region. Most of the existing bus system operates as this type of service.

Corridor Services
This service type focuses on facilitating medium-distance trip making. This service maintains relatively high average speeds (20 to 25 mph) and operates with limited stops (3/4 to 1 mile average spacing) primarily on major arterials. Corridor services will serve as the spine of the regional transit system.

Regional Services
Given that many trips in the region are longer distance, this service type maintains high average speeds (35 to 40 mph) and operates with very limited stops (more than three miles between stops, on average) on freeways and major arterials. Regional services will operate as the primary transit in corridors where longer station spacing is justified based on longer-distance travel patterns (e.g., I-15 corridor), or as an overlay for corridor services where a faster, more limited-stop service is justified to handle high-volume, long-distance trip needs. These routes would focus on serving key employment sites and major trip attractions.

Together, these four service concepts can provide a system of public transportation that meets the distinct travel needs of the region’s various travel markets.

Figure 2.1 Regional Transit Vision Service Concepts
Factors Influencing the Future of Transit

The success of the RTV in relieving congestion and preserving our quality of life hinges on the region’s success in pursuing the following four complementary efforts.

Capital and Operations Funding
Both capital and sustainable operating funds will be required to realize the optimum network of transit services envisioned under the RTV. Transit infrastructure, including vehicles, right-of-way, guideways, stops and stations, transit centers, maintenance yards, and storage facilities, require capital investment. In addition, capital funding is needed to maintain and replace past investments in transit infrastructure as the existing system ages. The level of capital funding secured will be a prime determinant of how much transit can grow. The second part of the funding picture involves funding for transit service operations. Virtually all transit services in the U.S. require funding subsidies to provide day-to-day services. Significant increases in ongoing local funding for operations will be required to support any major increase in the level and quality of transit service provided in the region. A 40-year extension of the local TransNet sales tax was approved by San Diego County voters in November 2004. This program will provide both capital and operations funding for numerous Bus Rapid Transit (BRT) services and the Mid-Coast LRT line. It also includes some growth in operating funds to support the existing transit services.

Land Use Coordination
The success of any transit service is linked to regional and local land use patterns. Low-density development, big box retail, and auto-oriented urban design (e.g., narrow sidewalks, wide intersections, limited pedestrian facilities and lack of human scale) decrease the attractiveness and effectiveness of transit. For the RTV to be successful, SANDAG and the region’s local jurisdictions must be committed to focusing higher-intensity development along major travel corridors, in established urban areas, and near major transit centers. In addition, the region will need to focus on improving the pedestrian orientation and urban design of our communities to facilitate access to and from transit facilities. This should also include the siting of public facilities such as schools and hospitals which will need to involve other governments’ agencies such as school districts and hospital districts. Through the strategic initiatives included in the RCP, SANDAG is establishing policies, programs and activities to work in partnership with local jurisdictions to better coordinate transit and land use planning. These include participation agreements between SANDAG and local governments, an intergovernmental review process for long-range plans, development regulations, and development projects. SANDAG will also proactively solicit involvement in the preparation of regional plans and forecasts, and the identification of smart growth areas.

Transit Priority Measures
As traffic congestion increases throughout the region, transit priority measures (e.g., HOV or managed lanes on freeways, transit-only lanes, queue jumpers at intersections, and signal priority measures on arterial streets) will become increasingly important for providing fast, reliable, and cost-effective transit service. Priority measures will allow transit services to travel faster than automobiles through congested corridors, while the faster and more reliable travel times will allow transit operators to provide dependable and efficient services. SANDAG will work with local jurisdictions and transit agencies to develop demonstration projects to showcase the travel benefit of transit priority. For example, SANDAG and NCTD will be undertaking a demonstration project with the City of Escondido to examine the feasibility of signal priority.

Advanced Technology
Advances in technology should be employed to enhance the passenger’s travel experience and to promote the efficient operation of service. Advanced design vehicles and “smart fare card” technology will allow for easier and speedier boarding and alighting. Real-time transit vehicle arrival information will provide reassurance to waiting passengers and promote a more relaxed waiting environment. SANDAG
currently has programs underway to deploy both the smart card fare system and the real-time vehicle information.

Together, these transit supportive efforts will result in increased ridership through better quality of service, and will improve operational efficiency.

SERVICE DEVELOPMENT GUIDELINES

SANDAG Policy No. 18, Regional Transit Service Planning, was adopted in September 2004 and specifies the transit service planning responsibilities of the consolidated agency and the transit agencies, and outlines a framework for transit service planning. The policy allows the transit system to quickly and efficiently respond to changes in travel demand and operating/fiscal environment, while ensuring that the system is adjusted and developed consistent with longer-range regional transportation and land use goals as incorporated into the RCP, the RTP, and the RSRTP. As a result, transit service revisions that relate directly to implementation of regional goals (regionally significant service changes) are generally those that:

- Support regional travel demand corridors that cross transit agency jurisdictional boundaries;
- Support inter-jurisdictional trip making (i.e., are consistent with the guidelines contained in the RSRTP; for example, would support and enhance geographic connections, provide timed transfers, and maintain or expand the frequency/service span of such services); and
- Can be implemented within the transit agency’s adopted budget or with new available operating resources.

SANDAG will ensure that all proposed service and operational changes comply with the policy. Any non-compliance will be resolved prior to the implementation of the change.

REGIONAL SHORT-RANGE PLANNING PROCESS

The short-range planning process outlined in SANDAG Policy No. 18 provides a framework for systematically adjusting services to meet changes in travel demand and operating constraints, while promoting service enhancements to attract new market segments. This process is based on collaborative planning principles that promote customer and stakeholder involvement from inception through implementation. In addition, quantitative methods are employed to ensure consistency and objectivity in service development and evaluation. SANDAG’s short-range planning process consists of five primary functions:

- Providing Guidance and Establishing Goals and Objectives
- Developing Service Adjustments
- Evaluating and Prioritizing New and Revised Service Changes
- Implementing New and Revised Services
- Monitoring

Each of these functions is described in detail below.
Guidance

The RSRTP, consistent with SANDAG’s RTP and RCP, is drafted annually by SANDAG, in consultation with the transit agencies. The RSRTP provides the framework, guidance, goals, and objectives for service planning during the upcoming year and balances the immediate needs of optimizing the transit system in response to operational and financial constraints, with the mid-/long-range system development goals established in the long-range plans.

Develop Service Adjustments

Service changes and new services are planned and developed to address deficiencies and gaps in the existing system, accommodate changes in travel demand, attract new riders, optimize existing services, reflect changes to the operating and fiscal environment, respond to customer comments and requests, and begin to implement and support services envisioned in the long-range plans. Planning studies and analyses are initiated as a result of system monitoring, public comments, regional goals and funding priorities, fiscal constraints, and forecasted growth throughout the region. Planning studies range from minor route analyses to subregional service restructuring and major corridor studies and are conducted by both the transit agencies and SANDAG. Regardless of the magnitude of analysis, all studies include a definition of goals, identification of the issue or deficiency to be addressed, and a prioritized list of recommended service improvements and adjustments. Stakeholder advisory committees and community groups provide input throughout the planning process to ensure that all issues are addressed, and to assist in the development of recommendations. In addition, final recommendations are presented to the transit agencies and SANDAG for adoption. The transit service planning process, including the public hearing process and role of the transit agencies and SANDAG, is described in detail in SANDAG Policy No. 18, Regional Transit Service Planning (included in Appendix G).

SANDAG’s focus in planning transit system and service changes is on establishing a policy framework, including development of regional goals and objectives, developing and evaluating service proposals within that framework, ensuring consistency of transit service proposals and changes with regional goals and objectives, and approving transit agency operating budgets for funding. At the direction of the Transportation Committee, revisions to Policy No. 18: Regional Transit Service Planning, were adopted in March 2005 affecting the service planning roles and responsibilities for SANDAG and the transit agencies. The Policy No. 18 revisions transferred the responsibility for service change public hearings to the transit agencies. Prior to a public hearing, SANDAG will conduct an administrative review of major and regionally significant service changes to determine that the service proposals are consistent with regional policies, goals, and objectives, or to make a finding of overriding considerations if the proposals are inconsistent with regional policies. The checklist in Table 2.1 provides guidance for evaluating consistency. Transit agencies will advise SANDAG of local or minor service changes prior to implementation. Transit system and service planning issues will be brought to the SANDAG Transportation Committee for discussion and direction, if appropriate.

Every year, service proposals are consolidated into a regional Service Implementation Plan and evaluated to establish priorities based on regional goals and funding availability. Service proposals must be funded through the transit agencies’ budgets prior to implementation, as described in the next section.
### Table 2.1 Regional Consistency Checklist

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>1.</td>
<td>Does change require additional subsidies not currently budgeted?</td>
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<td>2.</td>
<td>Does change improve or degrade transit network connectivity (e.g., timed</td>
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<td></td>
<td>transfers, connections to regional services, etc.)?</td>
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<td>3.</td>
<td>Is change contingent on a significant reallocation of financial resources</td>
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<td></td>
<td>from another service?</td>
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<td>4.</td>
<td>Does change enhance or reduce service to a major transit capital facility</td>
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<td></td>
<td>(i.e., rail line, transit center)?</td>
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<tr>
<td>5.</td>
<td>Does change enhance or reduce service to Smart Growth incentive area?</td>
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<td>6.</td>
<td>Is change consistent with SANDAG-adopted plans, policies, and guidelines?</td>
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<td>7.</td>
<td>Does the change address an identified gap or deficiency in the transit</td>
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<td></td>
<td>system?</td>
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### Evaluation and Approval

Once the regional Service Implementation Plan is developed by SANDAG and the region’s transit agencies, it is considered for implementation during the annual budget development process. This process begins in January each year, and concludes six months later when the SANDAG Board approves the transit agencies’ budgets for funding for the upcoming fiscal year. During this budget process, service enhancements identified in the regional service improvement plan are considered for implementation based on the priorities identified through the RSRTP planning process and funding availability. The Service Implementation Plan is adopted by SANDAG as part of the RSRTP.

This year projected operating revenues are unlikely to be sufficient to support increases in service. In fact, ongoing operating budget deficits may result in reductions in services to balance operating budgets. The SANDAG Board may evaluate the use of non-recurring revenues (e.g., one-time capital funds and reserves), fare increases, and/or service reductions proposed by the transit agencies to balance the transit operating budgets. MTS is conducting a Comprehensive Operational Analysis (COA) in FY 2005 to restructure services to be more efficient, reduce operating subsidy requirements, and establish a financially sustainable level of service. The service change proposals resulting from the COA will be considered by SANDAG over the next several years. Any budget-balancing actions would be considered with the goals of minimizing impact to existing riders, maintaining lifeline levels of service throughout the region, and maintaining network connectivity. A public hearing will be held at the transit agencies prior to the adoption of any major service reduction to provide a forum for the public to comment on the proposed service changes.

### Implementation

Service changes, whether improvements or reductions, are implemented during one of three regularly scheduled service changes each year, held in the fall, winter, and spring. Transit operators are responsible for implementation, which may include installing or removing stops, ensuring vehicles are available, scheduling, driver bidding, developing maps and timetables, and marketing. Transit operators are also responsible for notifying the public of service changes, usually in the form of written notification provided aboard vehicles or within ride guides.
**Monitoring**

SANDAG and the region’s transit agencies and operators continuously monitor the transit system to ensure that services meet the travel needs of the public, quality of service is maintained and improved, and service is provided cost-effectively. The transit agencies and individual operators focus on the day-to-day operations of their specific routes, and monitor the impacts of the current operating environment on the performance of their services. Impacts may include delays due to traffic congestion, detours resulting from construction, as well as heavy passenger loads due to school bell times, summer tourist travel, and military presence. Ongoing and annual route evaluations provide the transit agencies and operators with an in-depth understanding of the performance of each route, and include recommendations for improving under-performing routes and enhancing higher-performing routes. In addition, operators evaluate the cost impact and cost-effectiveness of their operation through monthly and quarterly budget monitoring reports, which compare budgeted expenses to actual costs. Data sources for operator monitoring include customer, driver, and supervisor comments, trips and route level passenger counts, and a series of reports detailing operating statistics such as revenue miles and hours, schedule reliability, road calls and missed trips, overtime hours employed, fuel and maintenance costs, and fare revenue.

While operators focus on their specific operations, SANDAG monitors transit service and operations on a transit agency and systemwide level. SANDAG undertakes two performance monitoring programs to systematically evaluate transit agency and systemwide performance: a quarterly report on transit agency performance and operating trends, and the annual Performance Improvement Program (PIP). The quarterly report provides an evaluation of the changes in transit agency and operator-level performance and efficiency, including reasons for upward or downward trends. Through the PIP, SANDAG evaluates each transit agency’s and operator’s efforts towards meeting performance targets and implementing annual operational improvements agreed upon by SANDAG and the agency/operator to improve the efficiency and effectiveness of the transit system in line with the goals and objectives of the RSRTP and RTP. A detailed description of each performance monitoring program is presented in Chapter 5.

In addition to these formal monitoring programs, the transit agencies and operators receive and respond to comments from the public on transit services and service changes. Each comment is investigated and, if appropriate and feasible, service changes are made to address the comment or kept for future consideration. The transit agencies share these comments and responses with SANDAG for future transit system assessments and updates to the RSRTP.

**RELATIONSHIP WITH PARTNER AGENCIES**

Interagency coordination is essential for SANDAG to successfully fulfill its roles and responsibilities for guiding, planning, funding, and monitoring improvements to transit services and facilities. Coordination with partner agencies ensures that SANDAG’s programs, services, and facilities complement and are consistent with other local, regional, and state efforts. This collaboration also helps SANDAG to better understand and address concerns expressed by partner agencies and key stakeholders, resulting in greater cooperation and support for SANDAG efforts. Most interagency relationships are maintained at the local and state levels, as described below. In addition, SANDAG coordinates with federal agencies for conformance and funding.
Local Level Coordination

Transit Agencies
SANDAG sets policy for service planning and fare setting for the region’s transit agencies and operators. SANDAG coordinates the various implementation efforts of the region’s transit agencies to ensure that seamless and unified service is provided to the public. This coordination is achieved through cooperative agreements such as the Comprehensive Fare Ordinance, coordinating committees comprised of SANDAG and operator staff such as the Regional Transit Management Committee and committees established for specific planning and project purposes. In addition, transit agencies are involved in various aspects of SANDAG planning, engineering, and finance activities.

Local Jurisdictions
To ensure consistency with local jurisdiction plans and programs, SANDAG coordinates its transit service planning activities with the 18 cities in the County and the County of San Diego. In addition, the City of San Diego provides two staff members to serve as planning and engineering liaisons between SANDAG and the City of San Diego. SANDAG policies and programs promote pedestrian and transit-oriented development through long-range plans, memorandums of understanding (MOUs), development project review, zoning and street design manual updates, right-of-way protection and acquisition, fund programming, education, and outreach.

State Level Coordination

Caltrans
Caltrans is responsible for transportation planning, engineering, and construction of state facilities. To enhance coordination, Caltrans provides SANDAG with an engineering liaison located at SANDAG. Caltrans also maintains oversight responsibilities for various state and federal funding programs. SANDAG enjoys a cooperative partnership with Caltrans District 11, particularly on large construction projects, including the I-15 Managed Lanes/BRT Project and the Mission Valley East LRT extension. This year, in collaboration with SANDAG, Caltrans is conducting a demonstration project on segments of Interstate 805 and SR 52 to convert freeway shoulder lanes to transit-only lanes.

Coordinating Committees

Interagency coordination is established and maintained through ad hoc and standing committees at both the staff and Board levels. Table 2.2 provides a list of committees through which SANDAG coordinates its activities.
Table 2.2 Summary of SANDAG Service Planning Coordinating Committees

<table>
<thead>
<tr>
<th>Committee Name</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Board of Directors (BOD)</strong></td>
<td>The Board of Directors is the governing body responsible for establishing all of the agency’s policies and programs. The Directors are elected officials—either a mayor, councilmember, or supervisor from each of the region’s 18 incorporated cities and the county. Voting is based upon membership and the population of each jurisdiction, providing for a more accountable and equitable representation of the region’s residents. Representatives from Imperial County, Caltrans, the U.S. Department of Defense, the San Diego Unified Port District, the San Diego County Water Authority, MTS, NCTD, and a representative from the Republic of Mexico serve on the Board as non-voting, advisory members.</td>
</tr>
<tr>
<td><strong>Transportation Committee (TC)</strong></td>
<td>The nine-member Transportation Committee has delegated authority from the SANDAG Board of Directors to act and advise on major policy-level matters related to transportation. Committee members provide oversight and approval for the consolidated transportation responsibilities, including transportation infrastructure projects, transportation and transit plans, transportation project priorities, Transportation Development Act claims and amendments to regional and state transportation improvement programs, and transit operator budgets. The committee consists of Board members or alternates representing North County Coastal, North County Inland, East County, South County, the City of San Diego, a supervisor from the County of San Diego, plus one member each from the Boards of MTS and NCTD, and the San Diego County Regional Airport Authority. There is also one advisory member representing Caltrans.</td>
</tr>
<tr>
<td><strong>Regional Transit Management Committee (RTMC)</strong></td>
<td>Provides management level coordination among SANDAG and the transit agencies on issues related to transit service planning, policies and major transit developments for the San Diego region; deals with broad issues related to financing, legislation, planning, and Americans with Disabilities Act (ADA) service issues; composed of general managers and senior staff from both MTS and NCTD, and the fixed-route transit operators in the MTS area; meets once a month.</td>
</tr>
<tr>
<td><strong>Joint Committee on Regional Transit (JCRT)</strong></td>
<td>Consists of three board members each from MTS and NCTD, who meet periodically to discuss ways of better integrating the two transit systems and act as the advisory committee on regional consolidation. A member of the SANDAG Transportation Committee participates as a non-voting member.</td>
</tr>
<tr>
<td><strong>Technical Working Groups</strong></td>
<td>Committees comprised of operators, jurisdictions, and other stakeholders developed for specific planning studies to review deliverables, and provide input and directions for work.</td>
</tr>
<tr>
<td><strong>Regional Short-Range Transit Plan Working Group</strong></td>
<td>Coordinates on development of the annual RSRTP including the Service Implementation Plan.</td>
</tr>
<tr>
<td><strong>Subcommittee on Accessible Transportation (SCAT)</strong></td>
<td>Administered by SANDAG; makes recommendations on regional accessible transit operational issues; meets quarterly; membership consists of representatives from the region’s transit operators, senior and disabled persons, and the public and nonprofit agencies serving them.</td>
</tr>
<tr>
<td><strong>Accessible Services Advisory Committee (ASAC)</strong></td>
<td>Monitors accessibility in operations and service procedures and makes recommendations on implementation of Complementary Paratransit Plan; comprised of operators, social service agencies, and consumers; meets six to eight times per year.</td>
</tr>
<tr>
<td><strong>Bicycle-Pedestrian Advisory Working Group</strong></td>
<td>Administered by SANDAG, this group advises on facility improvements related to bike and pedestrian uses.</td>
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</tbody>
</table>
RELATIONSHIP WITH THE PUBLIC

To better serve the travel demands of the San Diego region, SANDAG encourages public participation at all levels of transit planning, development, and implementation. On November 19, 2004, SANDAG adopted Policy No. 25, Public Participation/Involvement Policy Outreach. This policy covers the public participation and public information efforts in development planning, design and construction, transit service, and fare changes. It includes discussion of the overall public participation process and Native American consultation. Applications for the RSRTP include reports to the Transportation Committee with opportunities for the public to address the Transportation Committee, Web site updates, and a public hearing on the plan at the Transportation Committee.

Consistent with Policy No. 25, SANDAG’s Public Participation/Involvement Program informs and involves citizens in various agency programs, projects, and work activities. Since this program also assists in identifying and resolving environmental justice and social equity issues, special outreach is provided to lower income households, minorities, persons with disabilities, representatives from community and service organizations, tribal councils, and other public agencies. Citizen participation objectives include involvement of interested citizens, stakeholders, and representatives of community organizations in agency work through timely workshops on topical issues, fully noticed public hearings, and ongoing broad citizen/organization involvement in the planning and decision processes.

Prior to a public hearing on proposed transit service changes at the transit agencies, SANDAG will determine that the service proposals are consistent with regional policies, goals, and objectives, or make a finding of overriding considerations if the proposals are inconsistent with regional policies. Following this action, the transit operators hold a public hearing as part of their Board meetings to solicit public comment on proposed service changes.

Board members and staff regularly make presentations to various leadership, civic, and community groups about transportation issues and solutions. Board members and staff proactively provide information to the general public through Web sites (www.sandag.org and www.sdcommute.com), public notices and display advertisements in general circulation and minority/community newspapers, newsletters, report synopses, Take Ones/Rider Alerts on transit vehicles Rideguides, and news releases. In addition, SANDAG sponsors public outreach events to promote transportation programs and gauge public opinion on transportation and other regional needs. Special workshops and other forums are offered as needed to focus attention on individual projects and encourage the public's involvement. Policy No. 18 and SANDAG’s Public Participation/Involvement Program meets federal transportation planning process regulations.
CHAPTER 3: THE NEED FOR TRANSIT

We don’t need to wait for the future to feel the effects of regional growth. As streets and roads become more congested during longer periods of the day and affordable housing continues to be pushed further away from our city centers, people must spend more time traveling, thus eroding their quality of life and the quality of the region. As we prepare for the future we must strive to reverse this negative impact of growth by improving the region’s mobility.

During the last 20 years, the growth in travel demand has consistently outpaced the growth in population and employment, and this trend is expected to continue through 2030. Like most metropolitan areas experiencing rapid growth, the San Diego region has not been able to keep up with the demand for travel. Many of the region’s major transportation facilities are operating at or beyond their capacity, and we cannot expect that building new roads and freeways will solve all of our transportation problems. We must also maximize the efficiency of the region’s transportation system by focusing on moving people (person throughput) rather than vehicles (vehicle throughput). The best way to increase person throughput is with a robust transit system.

As with any service, designing a successful transit system begins with a comprehensive understanding of peoples’ travel demands. Where are they coming from? Where do they want to go? When do they want to travel? What travel factors are important to them – speed, safety, comfort, cost, reliability, etc.? Answering these questions will allow us to make the most of our transit resources by providing the appropriate services to the areas and during the times that match the public’s transportation demands.

UNDERSTANDING OUR CURRENT AND POTENTIAL CUSTOMERS

Since market research forms the backbone of any private sector development and investment strategy, SANDAG conducts periodic surveys to support the planning and development of transit services in the region. A telephone survey of residents and an on-board survey of transit riders are both conducted every three to five years, with the most recent ones completed within the last few years. These surveys help us better understand who our current riders are, why people use or don’t use transit, and what changes we should make to improve service for our existing riders and to attract new riders.

Based on the most recent resident survey completed in 2003, 85 percent of respondents have ridden transit in the region, and 51 percent used transit sometime within the past 12 months. However, only 9 percent indicated that they use transit regularly – at least once per week. These statistics indicate that the majority of people who used transit within the past year are occasional riders who use transit to get to Qualcomm Stadium, special events in downtown San Diego, or due to special circumstances.

While many types of people use the region’s transit services and for different purposes, the typical transit rider fits a much narrower profile. When we look closer at the survey results of our regular transit riders, we notice two defining characteristics – in general, they are from low income households and do not have regular access to a car. According to the 2003 onboard survey, over half of all respondents were from households that earn less than $20,000 per year, with close to 66 percent earning under $30,000 per year. Meanwhile, San Diego’s 2003 median household income is nearly around $50,000. The survey also indicated that almost three quarters of all respondents did not have access to a car for the trip they were making, and 65 percent of them came from households with one or no automobile.

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1 One exception is the average Coaster commuter train rider who generally comes from a higher income household and has regular access to a car.
The demographics for Corridor Services like Coaster and I-15 HOV lane express buses are different than other services. Operating experience in San Diego has shown that providing higher-quality transit that has its own priority (i.e., bypasses congestion) can attract a choice rider market. This ability to attract choice riders shows promise for achieving the RTP’s goals of getting more people on transit, thereby expanding the capacity of the transportation infrastructure without building roads, by moving people, not cars. Also, transit mode split into downtown San Diego approaches 20 percent for peak periods and mode split in the I-5 South Bay corridor is approximately 16 percent, demonstrating that where good transit service is provided, people use it. These results show that investments in transit, transit priority, and amenities can attract people to transit and help improve mobility – a key goal of the RTP. Consistent with the RTV, a variety of transit services (i.e., Transit First) is needed to both serve transit dependents and attract choice riders.

Based on our most recent resident and onboard survey, we can see that our current ridership is mostly transit-dependent, with the exception of the Coaster commuter rail passengers and I-15 express bus riders, where approximately 80 percent have a car available to make the trip and higher than average incomes. This research indicates that, on the basic transit system, people use our service because they have no other alternative. This point is emphasized by the fact that our household survey found that nearly 60 percent of our past riders stopped using transit as soon as they bought or repaired a car. In fact, 39 percent of them stopped using transit because it took too long, while 33 percent said that the service was inconvenient. Others did not like their travel experience onboard transit.

The market research conducted for the development of Transit First shows that improving the speed and schedule reliability of service by providing transit travel priority to avoid traffic congestion are the most important transit improvements for both existing and potential riders. For existing riders, improving the access of our services, both geographic and temporal (days and hours of service) is also an important factor, since they are largely transit-dependent. For our potential market of “choice” riders (people with various travel options) we must also focus on providing a travel experience that is competitive with the automobile. Addressing all of these criteria will allow us to improve service for our existing riders as well as attract new riders.

If a car is available, most San Diegans choose to drive instead of taking transit. There are three primary reasons for this mode choice:

1) Speed and Reliability – compared to the automobile, transit service is generally slow and unreliable, particularly for longer distance trips;

2) Accessibility - transit is not accessible, whether geographic (does not operate in areas needed) or temporal (does not operate during the times of day or days of week needed); and

3) Travel Experience - transit does not fulfill people’s travel preferences, such as safety, comfort, and cleanliness.

WHERE ARE THEY COMING FROM AND GOING TO?

The first step in improving the accessibility of our services is to understand the travel patterns of the region, and how they are changing.
**Population**

Since most trips begin or end at home, it is important to understand where people live in the region. In 2000, the San Diego region housed over 2.8 million people (see Table 3.1). Nearly one half of the population resided in the Central and North City areas of the region, including downtown San Diego, Mid-City, National City, Pacific Beach, and the Golden Triangle. Other areas of high population concentrations include the South Suburban communities of Imperial Beach and Chula Vista, the East Suburban cities of El Cajon and Santee, and the North County areas of Oceanside, Vista, and Escondido. Figure 3.1 shows the distribution of population throughout the region.

Within the next 10 years we can expect to see much of the residential development occur outside of the traditional urban centers (see Figure 3.2). Although downtown and southeast San Diego will continue to experience high growth rates, most of the population increase is expected in the newer communities of East Chula Vista, Spring Valley, Rancho San Diego, and the North County Coastal inland areas east of Del Mar, Encinitas, Carlsbad, and Oceanside.

**Employment and Major Activity Centers**

Now that we understand where people are coming from, we need to know where they are going. Since work trips make up the largest portion of travel demand during the peak periods, and the highest levels of congestion occur during the peak periods, it is important to understand where major employment centers are located throughout the region, as well as where we expect them to be in the future. Over the past decade San Diego has experienced a shift in the regional economy from predominantly local services to an export-driven economy, including industries such as biomedical production, computer, and electronic manufacturing. This change in economic focus has resulted in the development of new business centers and industrial parks located primarily in suburban areas of the region.

In 2000, 1.4 million jobs were located throughout the region (see Table 3.1). Most of the employment was located in downtown San Diego, Midway/Sports Arena area, Mission Valley, Kearny Mesa, Golden Triangle, Mira Mesa, Rancho Bernardo, Carlsbad, and San Marcos. Figure 3.3 presents the distribution of employment throughout the region. As evident in Figure 3.4, employment growth by 2010 will continue to be located primarily in the suburban areas of the region. Although downtown San Diego will continue to experience high employment growth, most of the new jobs will be located in the established business centers listed above, as well as newer facilities in Poway and Otay Mesa.
<table>
<thead>
<tr>
<th></th>
<th>Central</th>
<th>North City</th>
<th>South Suburban</th>
<th>East Suburban</th>
<th>North County West</th>
<th>North County East</th>
<th>East County</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000 Population</strong></td>
<td>619,289</td>
<td>655,877</td>
<td>307,313</td>
<td>462,663</td>
<td>364,157</td>
<td>380,430</td>
<td>21,104</td>
<td>2,813,833</td>
</tr>
<tr>
<td><strong>2010 Population</strong></td>
<td>688,225</td>
<td>758,599</td>
<td>393,371</td>
<td>510,366</td>
<td>426,724</td>
<td>433,664</td>
<td>24,726</td>
<td>3,235,675</td>
</tr>
<tr>
<td><strong>Population Change 2000-2010</strong></td>
<td>11%</td>
<td>15%</td>
<td>28%</td>
<td>10%</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>2000 Employment</strong></td>
<td>311,600</td>
<td>527,366</td>
<td>85,859</td>
<td>145,328</td>
<td>168,764</td>
<td>136,919</td>
<td>6,837</td>
<td>1,384,673</td>
</tr>
<tr>
<td><strong>2010 Employment</strong></td>
<td>360,374</td>
<td>603,158</td>
<td>103,720</td>
<td>163,791</td>
<td>163,111</td>
<td>163,111</td>
<td>8,213</td>
<td>1,590,206</td>
</tr>
<tr>
<td><strong>Employment Change 2000-2010</strong></td>
<td>16%</td>
<td>14%</td>
<td>21%</td>
<td>13%</td>
<td>11%</td>
<td>17%</td>
<td>20%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Figure 3.1
2003 Population

Population
- Less than 500
- 500 to 1,000
- 1,000 to 2,500
- 2,500 to 5,000
- Greater than 5,000

Transit Route

Note: Grids are 1/2 mile by 1/2 mile

SANDBAG
Commuter services should still focus on the traditional work week to serve the largest number of trips possible and increase capacity during the highest demand periods. However, these services may also be warranted at specific times during the night and on weekends when popular work shifts begin and end. Transit service to major regional attractors may need to be provided or enhanced during specific times of the year when the demand is greatest. Finally, local services should provide convenient access to community destinations throughout the day and on every day of the week.

WHEN DO THEY WANT TO TRAVEL?

Knowing where people want to go leads to only part of the solution for improving transit accessibility. We also need to understand when people need to travel.

For many businesses, a typical work schedule is 8 a.m. to 5 p.m. from Monday through Friday. Morning and afternoon peak-hour congestion indicates that this is still the predominant work schedule in the region. However, recent surveys and studies\(^2\) indicate that weekday work schedules vary a few hours from the typical schedule. Many employees are not on a strict schedule, and have the flexibility to arrive at work early or late. In addition, some businesses allow their employees to maintain flexible schedules such as 9/80 work weeks where employees work nine hours per day, and receive one day off every two weeks.

Work schedules also vary by industry. For example, retail stores, restaurants, movie theaters, and other services are open well into the night and/or on weekends. Other businesses, including manufacturing, hotels, and hospitals, are open 24 hours per day, seven days per week. Many employees of these businesses work late night and/or weekend shifts. Since a higher percentage of these service workers are transit-dependent, the need for transit services during these off-peak periods is critical for them to maintain employment.

Since most people are at work during the weekdays, many of their other trips are made at night and on weekends. Most of these trips, such as going to the store, medical appointments, or visiting friends and family, are made on a regular basis. Travel to major regional attractors, however, generally follows a seasonal pattern. For example, traffic to major universities is greater during weekdays in the fall, winter, and spring, when school is in session. In contrast, attractions such as the beaches, the Zoo, SeaWorld, and Seaport Village are frequented much more during summer weekends than during any other days of the year.

\(^2\) Route 844A on-board survey and employer surveys conducted for Poway Business Park and Rancho Bernardo.
WHAT ARE THEIR TRAVEL PREFERENCES?

In 2001, the region’s transit agencies conducted a resident survey to better understand the factors that influence choice riders in their travel experience. Eight key factors were identified as being important considerations for choosing a mode of travel – the need for flexibility and speed, sensitivity to personal travel experience, sensitivity to personal safety, concern for the natural environment, sensitivity to use of time, sensitivity to transportation costs, sensitivity to crowds, and sensitivity to stress. However, only two of these factors—sensitivity to personal travel experience and the need for flexibility and speed—proved to be common in the majority of responses.

As a follow up to this research, the 2003 resident survey asked several questions about the perception of flexibility, speed, and travel experience for transit compared to the private automobile. Figure 3.6 shows the average responses to these questions.

Figure 3.6 Agreement with Travel Statements by Various Modes

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Source: 2003 Household Survey, SANDAG

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In general, travel experience, including safety, comfort, and cleanliness, rated higher in importance compared to flexibility and cost. The Coaster proved to be the most similar to the private automobile for travel experience, while the bus and trolley service were perceived to be less clean, comfortable, and safe. The perception of speed of transit compared to a private automobile varied by transit mode. Modes with dedicated right-of-way outside of mixed-flow traffic, such as the Coaster commuter rail and San Diego Trolley light rail services, were competitive to driving, and even surpassed the private automobile in avoiding traffic. Existing bus service, however, was not perceived as being a fast transportation alternative. In terms of flexibility, none of the transit modes were competitive with driving.

**RESEARCH CONCLUSIONS AND GUIDANCE FOR TRANSIT PLANNING**

While people have travel needs at all times of the day and our desire is to accommodate as many trips as possible with transit, the biggest demand is during peak periods. Since these trips are regular/routine work trips, they are the best ones to serve with transit. Discretionary off-peak trips are harder to capture except for transit dependents for whom we need to provide effective basic levels of service. Due to financial constraints and the diverse nature of our service area, we can’t provide high levels of service all the time. As a result, the primary policy goal is to provide commuter service during the most congested times of day, thereby increasing transportation mobility when capacity is constrained, and providing effective and efficient basic service during off-peak times.

Based on the foregoing discussion, we can make three key conclusions that will help guide the development of transit service improvements in this RSRTP. First, transit is an important part of the region’s transportation system and has an important part in expanding its capacity. Second, a well designed transit system can serve travel between the major activity centers throughout the region. Finally, a transit system that is competitive in terms of travel time, convenience, and comfort can be an attractive alternative to the automobile for work and other higher-volume trips.
CHAPTER 4: THE EXISTING TRANSIT SYSTEM

This chapter provides a broad overview of the region’s transit system, as well as the challenges and opportunities we face in providing efficient and effective service throughout the region. A more detailed description of the transit system can be found in the technical appendices.

OPERATING ENVIRONMENT

SANDAG oversees transit service throughout the County of San Diego. Its jurisdiction consists of 4,261 square miles. However, most of the development is centered on the western half of the county. The physical environment within the region consists of hills, canyons, lagoons, and bays, which limit the travel corridors connecting our region, and result in circuitous and non-contiguous street patterns. Combined, these factors present a challenge to providing access and a high level of service to all areas of the region.

San Diego County is bordered by Orange and Riverside Counties to the north, Imperial County to the east, and Mexico to the south. With more affordable housing opportunities in Western Riverside, San Diego County is experiencing a significant increase in travel demand from Riverside County into the region. Likewise, with the busiest international border in the country, many of the trips made within the region originate in Mexico.

Although the RCP envisions intensification of development in our urban centers, the existing built environment consists of medium density urban centers and lower-density suburban development, with the exception of downtown San Diego and University City. In addition, ample parking and affordable gas prices provide added incentive for people to drive.

Types of Service

Providing service within the context of San Diego’s diverse topography, development pattern, and population is a challenge. Therefore, we must provide a family of services that is tailored to fit the different travel markets and operating environments we serve. The trolley, Coaster and express bus routes provide fast interregional service along major travel corridors (Regional and Corridor services), while local bus service (Local services) provides convenient access to homes, businesses, and other local or nearby destinations. Demand-responsive services (Neighborhood services) operate in lower-density areas that lack distinct travel patterns, while ADA paratransit service provides basic mobility for senior and disabled citizens.

Since various services are designed to meet different needs, they must be developed and evaluated according to their primary function. For example, commuter express services are designed to provide fast service from a few points of origin to a common destination. In contrast, local bus service should provide access to origins and destinations along the entire length of the route. Therefore, we should expect to see a greater number of passengers served by local bus service, due to higher passenger turnover along the route, while express services should achieve faster operating speeds. Understanding these differences is crucial towards developing the appropriate type of service for each travel need. SANDAG and the region’s transit agencies have identified service categories within the Regional Corridor, Local and Neighborhood service concepts to distinguish among services, to help plan for and provide a diverse transit system, and to allow for a more equitable comparison of service performance to support the family of services strategy.
Service Provision

Transit service in the region is provided by two transit agencies; the Metropolitan Transit System and the North County Transit District. Within MTS there are five different transit operators—Chula Vista Transit (CVT), Metropolitan Transit System Contract Services (MTSCS), National City Transit (NCT), San Diego Transit Corporation (SDTC), and San Diego Trolley, Incorporated (SDTI). Under the umbrella of SANDAG and its policies, the transit agencies strive to provide a seamless system of services to the public. Policies related to service planning and implementation, fare structure and setting, and public involvement, have been adopted by SANDAG since agency consolidation in July 2003. A policy related to land use/transit coordination is under development. These policies promote an integrated regional transit system, including coordinated services and schedules between transit agencies, a systemwide cash and prepaid fares structure, and regional traveler information.

Service Coverage

As shown in Figure 4.1, good geographic coverage is provided throughout the region. This coverage is reduced at night when overall travel demand is less. Only major travel corridors connecting established urban areas are served late at night. Figure 4.2 shows a similar reduction in service levels in some geographic coverage on weekends when service is limited in the outlying areas of the region. Frequency, or level of service, also differs throughout the region. As presented in Figure 4.3, frequency of service is more enhanced in urbanized areas where development patterns and travel demand warrant a higher level of service.

Transit Facilities

Operating a public transportation system requires a fleet of buses, paratransit vehicles, light rail cars, and commuter rail coaches. The description of the existing facilities and rolling stock is presented below for the bus and rail services operated in San Diego County.

Bus Facilities

The fleet of vehicles in the San Diego region includes over 800 buses and approximately 200 minibuses and vans. While the majority of buses are diesel-fueled, MTS operators continue to replace their retired buses with compressed natural gas (CNG) engines that emit less air pollution compared to diesel. Over half (51 percent) of the MTS fixed-route bus fleet is currently operating on CNG. Nearly one-third (31 percent) of NCTD’s fleet operates on CNG. Other vehicle design innovations that are currently being incorporated into new vehicles include low-floor technology, automated passenger information, automatic fare collection, and an advanced scheduling and dispatching system. These innovations are designed to improve the accessibility of vehicles to senior and disabled customers, provide better customer information, and improve the efficiency and effectiveness of the transit system.

Maintenance and fueling facilities are needed to ensure that these vehicles are able to operate safely and reliably. There are several bus maintenance facilities within SANDAG’s jurisdiction that provide fleet fueling, maintenance, and storage. These facilities are located to provide quick and convenient access to the various subareas of the region.
Figure 4.1
Weekday Span of Service

Service Ends:
- After Midnight
- 10:00 - Midnight
- 8:00 - 10:00
- Before 8:00

Transit Route

SANDAG
Figure 4.3
Peak Period Frequency of Service

Peak Frequency:
- 15 Minutes or Less
- 16 to 30 Minutes
- 31 to 60 Minutes
- 31 to 60 Minutes
- More than 60 Minutes

Transit Route

SANDAG
The existing transportation system includes a variety of facilities that support and enhance the operation of transit service, including HOV lanes and freeway ramps, exclusive bus lanes, signal prioritization, queue jumpers, park-and-ride lots, bus pads and turnouts, and preferential traffic restrictions (see Figure 4.4). All of the existing priority treatments are located in the MTS service area. These facilities are discussed in more detail in the “Opportunities and Challenges” section below. Under the RTV, SANDAG envisions that transit priority treatments will be implemented throughout the region to promote faster, more reliable, and competitive transit services.

Finally, accessible, safe, and clean bus stops, shelters, and transit centers are also important to a well-operated transit system by providing comfort and convenience to passengers. Bus stops are installed at all access points to the transit system, while transit centers provide shelters and stops at locations where many local and regional routes come together. There are currently over 7,600 bus stops in San Diego County, with over 5,500 in the MTS area and over 2,100 in the NCTD area. Transit centers are the hubs of the region’s transit system, providing initial access and transfers in a clean, safe, and comfortable environment. Many transit centers provide parking, adding to the convenience of accessing the region’s transit system by automobile. The region’s transit centers are shown in Figure 4-5.

Proper bus stop location must strike a balance between access and efficiency. Bus stops should provide convenient and easy access to major destinations, at junctions with other routes for transfer opportunities, and in areas with high ridership. Although placing more stops along a route may improve access, too many stops negatively impact quality of service, travel time, operating costs, productivity, and efficiency. Therefore, bus stops should be strategically placed to maximize access, while the number of stops along a route should be minimized to achieve greater operating speeds, efficiency, and quality of service.

Bus stop amenities are generally installed based on demand. Benches and shelters are provided at stops that demonstrate moderate demand, while transit centers are established at major transfer locations where significant ridership is demonstrated, usually along rail corridors. The RTV envisions that these transit centers, many bus stops, and future BRT stations will be greatly enhanced with advanced designs and customer conveniences, and will be the catalyst for higher-density land use development.

Rail Facilities

San Diego County has two rail transit operators: the San Diego Trolley light rail system and the Coaster commuter rail service. When the four Mission Valley East light rail transit stations are added to the Trolley system in summer 2005, there will be 53 stations in the Trolley system. The total one-way length of the system will be 53 miles when the six-mile Mission Valley East extension opens. The Coaster has eight stations along its 41-mile length. The region’s rail fleet includes 123 light rail cars, and seven commuter rail locomotives pulling 28 coaches. Commuter rail locomotives are diesel-electric, while SDTI’s rail vehicles are electrically propelled. New low-floor light rail vehicles are being procured for the Mission Valley East extension. Two rail maintenance facilities serve the light rail and Coaster systems.

Priority treatments for these rail services take many forms, the most basic being the exclusive right-of-way provided by the rail lines themselves. Other forms include traffic signal priority treatments (e.g., Commercial Street), signaling systems and gates to stop cross traffic when operating in exclusive right-of-way, and grade separations. Stations are generally spaced farther apart than bus service to provide access to activity centers, park-and-ride lots, and neighborhoods, while maintaining higher operating speeds. Station facilities can range from simple designs like many of the downtown stations to large multimodal facilities like the Oceanside Transit Center. Joint developments are planned or in place for many of the region’s rail stations, helping to support Smart Growth initiatives.
Challenges for the Future

There is a need for ongoing investment in the region’s bus and rail transit systems. Many of the rail facilities are over 20 years old, and capital replacements and upgrades are necessary to keep the system running efficiently and ensure the service reliability needed to attract and keep our customers. New vehicles and upgraded maintenance facilities are also needed for the bus system. At the same time, we need to expand our infrastructure investments in both bus and rail facilities to provide the transit capacity needed to meet the region’s mobility requirements. This need for both capital replacement and capital expansion is one of the key challenges facing the region’s transportation system. SANDAG and the transit agencies are working together to address this challenge.
Figure 4.5
Major Transit Centers
Supporting Programs

Marketing

Educating people about public transportation and the services available to them will always be a challenge. SANDAG and the region’s transit agencies must continuously look for fresh, original marketing opportunities to effectively promote transit as a viable alternative to driving. The marketing departments of SANDAG, MTS, and NCTD participate in community events, launch route and service-specific marketing programs, and participate in regional and national campaigns to promote transit usage, including the federally funded Public Transportation Partnership for Tomorrow (PT2) campaign. Essentially, we try to reach the general public with our various efforts, in hopes of capturing new riders with a message that will relate to them uniquely.

Our marketing departments are also responsible for designing and producing public information materials to inform the public of our services, fare changes, new programs, and other changes to our services. Materials include the Regional Transit Map (RTM), timetables, Ride Guides, brochures, Take One and Rider Alert notices, and much more. Their efforts are what are seen and heard onboard vehicles, at bus stops and transit centers, on billboards in the community, in radio advertisements, and in press releases. Other information sources include our Internet site (www.sdcommute.com), The Transit Store (located at First and Broadway in downtown San Diego), and the customer information telephone line (1-800-COMMUTE). Information is presented in multiple languages and in various formats to reach the broadest audience.

Security

Our security programs also help to improve the image of the transit system while promoting safety on board vehicles and at major transit centers. In addition to uniformed officers, we incorporate technology such as closed-circuit television (CCTV) to continuously monitor vehicle and station activity. These programs have resulted in a safer transit system and one that is generally perceived as such.

Transit Priority

Transit First Now! is an ongoing program developed within the framework of the Transit First strategic plan and RTV to provide localized priority treatments for the existing transit system. Through evaluation of congestion “hot spots,” transit route on-time performance and surveys of bus drivers, SANDAG has identified a series of locations and route segments for potential transit priority treatments. Priority could be provided through such measures as queue jump lanes and signals at busy intersections, short transit-only lanes on congested arterials, and signal priority along major streets. More discussion of transit priority facilities is included below.

CHALLENGES AND OPPORTUNITIES

Since transit service is provided in a constantly changing operating environment, it is important for us to understand the external factors that influence our ability to provide efficient and effective transportation services. It is important to understand the challenges we face, but it is even more important to take advantage of the opportunities that are presented towards meeting these challenges. The following section presents the greatest challenges and opportunities we face today in developing and implementing a robust transit system that will meet the mobility needs of the region.
Traffic Congestion

Challenge
Traffic congestion consistently tops the list of concerns on public opinion surveys, and for good reason. Our region currently suffers from a high level of peak-period congestion on many major freeways and arterials, making the daily commute to work and school increasingly time-consuming. Existing transit services, which primarily operate in mixed-use traffic, must also compete in the same congested environment as solo auto drivers, resulting in continued declines in speed and reliability.

Transit’s operating costs are also impacted by traffic congestion. Faced with longer running times and slower speeds, more buses and drivers must be assigned to each route to maintain existing service frequencies. In the recent past, more than $1 million annually has been spent on additional resources to mitigate the impacts of traffic congestion, which could otherwise be spent on new and enhanced services.

Opportunity
Although congestion is expected to increase as a result of regional growth, SANDAG’s commitment to the RTV promotes measures to protect transit services from congestion, and improve its competitive position with the automobile. By implementing transit priority measures at major congestion hot spots, transit service will bypass congestion, enabling it to maintain reliable and possibly faster service compared to driving alone. The following are examples of transit priorities for intersections and along major travel corridors that SANDAG will be developing over the next five years to support the existing and future transit system.

- **Signal Priority** - Signal priority for transit extends a green light on a traffic-signal cycle to allow the uninterrupted flow of an approaching bus or light rail vehicle. Signal priority is presently employed on C Street, 12th Avenue, and Commercial Street in San Diego to facilitate trolley movements.

- **Queue Jumpers** - Queue jumpers provide bus priority through congested intersections by providing short bus-only lanes at intersection approaches that allow buses to reach the head of intersection, bypassing the line of stopped cars at a red light. The bus receives a special advance green light approximately three seconds ahead of the adjacent car lanes, allowing the bus to get a jump on entering the intersection prior to the auto traffic. Queue jumpers exist in San Diego at westbound Friars Road at Frazee Road, southbound Fourth Avenue at E Street, eastbound on Broadway at Third Avenue, in Chula Vista on East H Street at Hidden Vista Drive, and on East Palomar Street at Heritage Park. Two additional queue jumpers are under construction in San Diego at northbound First Avenue at Beech Street and eastbound Rosecrans Street at Pacific Highway (the approach to the Old Town Transit Center).

- **HOV and Managed Lanes** - As freeway congestion increases, HOV and managed lanes will become more important for helping buses avoid congestion, maintain schedule reliability, and reduce travel times. These lanes restrict uses to buses, carpools, and, in some cases, paying single-occupant automobiles through the FasTrak program. HOV lanes currently exist on Interstates 5 and 15 and a 10-mile extension of the I-15 HOV facility is currently under construction north of SR 56. This extension will be in the form of managed lanes, providing four HOV lanes with a movable center barrier to accommodate peak direction flow. HOV lanes also exist at many freeway on-ramps in the region.

- **Freeway Shoulder Lanes** – Because the addition of HOV and managed lanes in the region requires a major capital facility, SANDAG is pursuing an interim short-term solution to the need for transit priority on
freeways. In partnership with Caltrans, SANDAG is implementing a demonstration project to convert freeway shoulder lanes to transit-only lanes on segments of the I-805 and SR 52 freeways. The year-long demonstration, modeled on a transit freeway shoulder program in Minneapolis, will be underway in summer 2005. Existing Route 960 will operate on the freeway transit lanes during the demonstration. The demonstration will be evaluated for its ability to improve transit reliability and speed, as well as safety, passenger, auto and bus driver perceptions, and its potential application to other locations in San Diego County.

- **Exclusive Bus Lanes** - This concept extends beyond HOV and managed lanes by creating lanes exclusively for bus use. Bus-only lanes allow bus service to bypass congestion along a major travel corridor. An example of an exclusive bus lane is located at the north end of downtown San Diego, where 11th Avenue merges onto northbound SR 163. This lane will be extended several blocks further south as part of the Smart Corner redevelopment project. Bus-only lanes can also be beneficial at freeway access points and at major bus stops, such as at the onramps from University Avenue and El Cajon Boulevard to Interstate 15 and the peak-period bus lane on Fifth Avenue between Beech Street and I-5.

**Lower-Density Development**

**Challenge**
Traffic congestion and dependence on the automobile is largely the result of lower-density, homogenous development. A continuation of the region’s suburban employment and residential development patterns will increase our dependence on the automobile by reducing the access, convenience, and effectiveness of transit. In addition, the low-density development results in longer travel times, more trips made, and increasing amounts and duration of congestion.

**Opportunity**
Since SANDAG has recognized for many years that we cannot build our way out of congestion, the RCP represents a bold new approach to regional planning specifically focused on coordinating and integrating land use and transportation planning and development. The RCP helps to minimize the impacts of growth on our infrastructure and natural resources, and maintains our quality of life. Central to the smart growth strategy is good coordination between land use and transportation development that focuses compact, efficient, and higher-density development in key urbanized areas where an integrated transit system is planned to provide efficient and effective mobility between and throughout these areas. In addition, the strategy encourages the development of mixed-use and pedestrian-friendly communities to encourage walking and bicycling for neighborhood trips and to access transit stations.

To implement the RCP, SANDAG will incorporate smart growth criteria into the evaluation and prioritization of transportation projects for funding. This approach to programming scarce transportation dollars is used as an incentive for local jurisdictions to develop coordinated smart growth land use plans. SANDAG will also promote smart growth by providing incentive funds to plan and develop mixed-use, walkable, and transit-oriented land uses through a $25 million Smart Growth Incentive Pilot Program. Under the pilot program, grant funds would be made available to local jurisdictions for projects that help integrate transportation and land use, such as transit-oriented developments and other smart growth projects that make areas more conducive to mixed land uses, walking, and biking. The pilot program will focus on implementing ready-to-go projects that improve access to transit in areas with high activity levels and on transportation-related improvements that encourage the smart growth development envisioned in the RCP. The pilot program
would be a precursor to the longer-term $280 million funding program included in the extension of the TransNet local transportation sales tax. Lessons learned from the pilot program would be used to develop this longer-term incentive program.

In addition, SANDAG and the region’s transit agencies actively pursue opportunities to enter into joint-use development projects around major transit stations. Larger projects include mixed-use development consisting of office, residential, and/or retail uses, while smaller projects often include convenience services such as dry cleaners and banking. These types of developments help make transit convenient to where people live, work, and shop. Examples of completed joint development projects include the James R. Mills Building at the 12th & Imperial Transfer Station, the Sweetwater Union High School Adult Education Center at the 24th Street Station in National City, and the apartments and day care center at the 47th Street Station. Other transit-oriented development (TOD) projects include America Plaza, Rio Vista, Fenton Parkway, Hazard Center, La Mesa Blvd., and the new Smart Corner downtown with trolley running diagonally through it. In addition, efforts are currently underway to develop property at the Morena/Linda Vista, Grossmont Center (La Mesa), and E Street Trolley Stations, the Solana Beach Coaster Station, and the San Luis Rey bus transit center. A number of transit facilities currently under construction will offer new opportunities for joint development. The Mission Valley East trolley extension and Sprinter CoasterRail line between Escondido and Encinitas provide a number of joint development opportunities around the new rail stations. And the I-15 BRT stations under development at Sabre Springs/Penasquitos, Rancho Bernardo, and Del Lago as part of the extension of the I-15 HOV/managed lanes, provide an opportunity for joint or TOD at these BRT facilities.

SANDAG and the transit agencies are proactive in reviewing development plans to promote transit-oriented development around transit stations and stops and to ensure that transit is addressed or integrated into the design. Formal agreements such as memoranda of understanding (MOUs) were established between many of the region’s local jurisdictions and the former Metropolitan Transit Development Board that outlined a formal review process. SANDAG has assumed the review responsibility for the MTS area while NCTD conducts a similar development review in the NCTD area. (The adoption of a Land Use/Transportation Coordination policy by SANDAG will seek to consolidate this function.) In addition, SANDAG works with local jurisdictions to incorporate smart growth principles in community and general plan updates. Bringing existing bus stops up to ADA standards and securing new shelter and bench stops are among the most common types of improvements with financial benefits, while preservation of transit right-of-way, strengthening of pedestrian connections to transit stops, and contributions toward major transit facilities such as transit centers and rail stations are part of the review process and program. As an example of the effectiveness of this effort, in 2003 a total of 161 transit improvements were secured valued at $1.635 million. Without these facilities secured through the development review process, the costs for these transit improvements would have to be borne by the transit agencies.

SANDAG is currently developing the Land Use/Transportation Planning Coordination to be adopted in early 2005. It is expected to call for SANDAG and local agencies to promote and enhance the coordination of land use and transportation planning through MOUs and early review of local long-range planning documents, development regulations, and development projects. It is also expected to call for early local involvement in the preparation of SANDAG regional plans and forecasts, and identification of smart growth areas.
Financial Constraints

Challenge
As a result of local, state, and federal budget deficits, funding to build new transportation projects is limited. More importantly, operating and maintaining the existing transit system is becoming an increasing challenge. Higher operating costs and lower levels of public subsidies have resulted in annual operating budget deficits in the range of $10 million-$13 million. This trend is expected to continue for the next several years. Historically, this operating deficit was addressed through the use of nonrecurring revenues (e.g., capital or reserve funding). However, as these one-time revenue streams become depleted, it is essential to find new opportunities for funding, and/or adjust services to a sustainable level. For the past two years, MTS services have been reduced to help address the budget deficit. NCTD continues to adjust services to maintain a sustainable level of service.

Opportunity
MTS is currently conducting a Comprehensive Operational Analysis (COA) of its existing services. The goal of this effort is to restructure the services to more efficiently serve the region’s travel demands and save $10 million-$13 million in annual subsidy requirements. The study includes development of a new service concept for the area and a comprehensive community input process. Any service reductions will be made primarily to those services that have become unproductive due to the changing local economy, development patterns, and/or travel demand. Initial recommendations are expected by April 2005 to provide input into the development of FY 2006 operating budget. Subsequent recommendations from the COA will be incorporated into future RSRTPs. NCTD’s budget situation is tight but stable at this time. No major service changes are planned until the Sprinter opens in December 2007.

As a result of the recent operating deficits, SANDAG has been proactive in seeking non-traditional funding sources to maintain existing services and implementing new ones. SANDAG and the transit agencies have been successful in securing several million dollars in federal Jobs Access Reverse Commute (JARC) and local Air Pollution Control District (APCD) funding to continue Sorrento Valley Coaster Connection service and Routes 905 and 960, as well as the implementation of a new reverse commute route from downtown San Diego to the Poway Business Park via Interstate 15, and a Coaster Connection service in Carlsbad. In addition, SANDAG is evaluating opportunities to partner with residential developers to incorporate transit privileges into rents or homeowner association fees that will guarantee additional sustainable fare revenues to support service enhancements to those communities.

SANDAG and the region also have an opportunity to address our budget deficit and improve the transit system through new operating funds that will be available as a result of the extension of the TransNet sales tax measure, approved by San Diego County voters in November 2004. As a result, local funds will be available for matching state and federal capital grants, and to provide operating funds for the new LRT and BRT services and for some growth in the basic transit system. While the extension of the sales tax measure provides much needed capital and operating dollars to maintain existing services while developing new services as envisioned in the RTV, the availability of sufficient transit operating funding for the existing system will continue be an issue.
Implementation of SANDAG’s RTV will change the way we perceive transit from a slow, unreliable, and unattractive transportation system to one that is competitive with the private automobile in all of these factors.

Image of Transit

Challenge
Our most recent household survey, conducted in 2003, determined that most San Diegan’s consider transit the last resort in transportation options. This response is not surprising considering that the perceptions of transit in meeting people’s travel needs and preferences are poor. Based on the survey, the four most important factors in people’s choice of transportation mode are: personal safety, reliability, ability to avoid congestion, and reasonable travel time. The perception of bus service was significantly lower for all four mode choice factors when compared to trolley, Coaster, and the private automobile. However, transit services with dedicated right-of-way and more enhanced amenities, stations, and vehicles were perceived to be fairly competitive with the automobile. In fact, trolley and Coaster service were perceived to be significantly better in avoiding congestion compared to driving alone because these services operate outside of congested freeways and roads.

Opportunity
The survey results tell us that a majority of San Diegan’s will use transit if it is accessible, and competitive with the private automobile in terms of convenience, reliability, and speed. In fact, 54 percent of respondents stated that they would use transit under the right circumstances. The RTV attempts to develop these “circumstances” with a network of accessible, enhanced, high-speed, and reliable transit services spanning the region. These services would operate at high frequencies throughout the day, evening, and weekends, and bypass congestion using dedicated transit lanes or transit priorities.

SANDAG is currently developing several projects to showcase the range of technologies and service concepts that are part of the RTV. The Showcase Bus Rapid Transit Project is planned to operate at high frequencies between San Diego State University and downtown San Diego via El Cajon and Park Boulevards. Traffic signal priority and short transit lanes are proposed to help the service maintain speed and schedule reliability through congested areas of the route. Operating in a similar arterial street environment, the Super Loop project in North University City also proposed to use traffic signal priority, queue jumpers, and other treatments to increase the speed and reliability of operation. The South Bay BRT project plans to use a combination of freeway managed lanes or transit shoulder lanes and dedicated transit lanes on arterial streets to bypass congestion and provide a dependable travel time between South Bay communities and downtown San Diego. The I-15 BRT project will be implemented as part of the managed lane project, with direct access ramps connecting the HOV/managed lanes with transit centers adjacent to the freeway right-of-way. In all of these projects, innovative station designs will provide better access and customer amenities. Other elements, such as the automated fare collection system and regional transit management system, will provide “smart card” fare payment technology, real-time traveler information, and will enable transit operators to more efficiently manage the operation of the services. Once implemented, these projects will meet and exceed the perceptions of safety, reliability, speed, and avoiding congestion compared to rail transit, as well as driving alone.


**Aging and Disabled Population**

**Challenge**
As the number of residents in the region continues to grow, so does its aging population. We anticipate the senior population will significantly increase as Baby Boomers prepare for retirement, and with it, the demand for senior transportation services will also increase. Today, approximately 14 percent of the region’s population consists of people that are age 60 or older. We expect this number to grow by about 3 percent by 2010. By 2030, we anticipate that 25 percent of the residents of San Diego County will be age 60 or greater. With the increasing number of aging citizens that are unable to drive, there will be a steady growth in the demand for senior transportation services. In addition, the number of disabled persons is also expected to rise. However, along with this new opportunity to capture a greater percentage of the travel market comes the increasing need to provide senior and disabled services in ways that are both appropriate and cost-effective.
Opportunity
Transit vehicle design can help improve the accessibility and ease of boarding for people who are able to use fixed-route services. Kneeling buses and low-floor vehicles allow easier boarding and deboarding by providing a lower clearance to the street or rail platform. Vehicles are also equipped with wheelchair lifts to pick up or drop off passengers who are not able to step onboard the vehicles. Finally, priority seating is provided at the front of vehicles to increase the convenience for senior and disabled riders.

As mandated by federal law, SANDAG provides Americans with Disabilities Act (ADA) paratransit services to complement all general fixed-route services in the region. ADA paratransit is a demand-responsive, point-to-point service that operates similar to taxi service. As such, it is a very expensive service to provide because of the low number of passengers served compared to the number of mile and hours it operates. Due to this high cost, eligibility to use this service is limited to those disabled persons who demonstrate the greatest need, as defined in the federal guidelines governing the eligibility requirements, safety, equity and cost-effectiveness of the service.

Since transit can only meet the needs of those who can use fixed-route services and certifiable disabled persons, the region must provide other options for the majority of seniors and disabled persons within our communities. Some lower-cost transportation alternatives include ridesharing (e.g., carpool or vanpools), nonprofit transportation services (e.g., All Congregations Together, College Avenue Senior Center, and FISH), and community-based volunteer driver programs (e.g., City of Vista’s Out and About program). The Coordinated Transit Services Agency (CTSA) provides technical information and assistance on specialized transportation services for transportation-disadvantaged communities, and can help with any of these as well as other transportation options. As part of the effort to coordinate transportation services, the CTSA provides information on alternative transportation, referral services, workshops and travel training, grant assistance, and coordination with existing Health and Human Services Agency (HHSA) transportation services.

SANDAG’s Subcommittee for Accessible Transportation (SCAT), acting as the region’s Social Service Transportation Advisory Council, held hearings to receive public comments on unmet transit needs in San Diego County, as required by the California Public Utilities Code. Also attending the hearings were representatives of the region’s transit districts and the CTSA. The purpose of the hearings was to assist SANDAG and the region’s transit operators in identifying unmet needs of transit-dependent and transit-disadvantaged persons, including the elderly, persons with disabilities, and persons of limited means. The hearings were held in Vista and San Diego in October and November 2004.

Testimony was received from 67 respondents, making 200 individual comments. These comments fell into several categories for both fixed-route and paratransit services for seniors and persons with disabilities. They included the need for expanded fixed-route and ADA paratransit services, better on-time performance, and transit accessibility improvements. General comments about the needs of transportation-disadvantaged persons will be used by SANDAG during the update of the annual short-range transit planning and budget process. Many comments were specific to individual fixed-route and paratransit services.

SCAT reviewed the comments and recommended that the Transportation Committee accept them for consideration during the annual short-range transit planning and budget process, and also forward the comments to the transit agencies for operational planning purposes.
CHAPTER 5: HOW ARE WE DOING?

GOALS AND OBJECTIVES

In 2002, SB 1703 (Peace) formally consolidated MTDB, NCTD, and SANDAG into one regional transportation agency to ensure that coordinated and well-balanced transportation solutions are planned and implemented to meet current and future travel needs. This consolidation provides an opportunity to establish regionwide policies, goals, and objectives for transit service planning and development. These policies, goals, and objectives help to translate SANDAG’s Regional Transit Vision into working guidelines. The policies provide the guiding framework for planning, designing, and implementing transit. The goals are generalized statements that describe the outcomes SANDAG intends to achieve consistent with the policies. The goals are supported by statements of objectives that will be evaluated at the end of each year to determine progress made in the previous year toward their achievement. Table 5.1 presents the goals and objectives for the next five years. They have been designed to reflect SANDAG’s focus on regional policies that can be addressed through the transit system and services. More specific operational goals and objectives are left to the transit agencies.
### Table 5.1 Transit Service Goals and Objectives

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<th>Goal</th>
<th>Objectives</th>
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<td><strong>Regional Transit System Development</strong> – Transit service should strive to address needs and deficiencies in the regional transit system.</td>
<td>• Eliminate one or more transit deficiencies identified in the FY 2005-2009 RSRTP and/or individual transit agency performance goals.</td>
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| **System Productivity** – Transit service should strive to improve system productivity. | • Reduce duplication of services (i.e., routes, schedules).  
• For new and revised services, at least meet minimum productivity standards (to be defined through the RSRTP service evaluation process) for similar types of services.  
• Optimize the amount of service provided within available funding.  
• Improve operational efficiency though the Productivity Improvement Program and related efforts.  
• Facilitate and promote strategies to provide priority for transit operation on streets and highways.  
• When required by funding constraints, develop service reductions that minimize impacts to current passengers, maintain service throughout the region where demand is demonstrated, and maintain network connectivity to the extent possible. |
| **Capital Investments** – Transit service should support major transit capital facilities and investments. | • Provide high levels of transit service to regional transit centers and regional transit services (i.e., rail and bus rapid transit services) in concert with local transit service needs. |
| **Network Connectivity** – Transit service should maximize network connectivity. | • Maintain and enhance timed transfers at high-volume transfer locations, particularly to regional services and at transit centers.  
• Support local and regional travel demand through provision of transit services unconstrained by jurisdictional boundaries. |
| **Travel Demand** – Transit service should meet travel demands. | • Provide appropriate levels of transit service (frequency and span) to sufficiently accommodate demand.  
• In general, provide higher frequencies during peak travel periods.  
• Plan transit service improvements and revisions with input from riders, the public, and the community. |
| **Customer Experience** – Transit service should provide a positive customer experience. | • Provide transit service routing that is as direct as possible (i.e., avoid out-of-direction travel while balancing directness with access).  
• Provide as fast and reliable a transit service as possible. |
| **Smart Growth** – Transit service should support Smart Growth areas. | • Take advantage of opportunities presented by existing and planned Smart Growth developments when adding or revising transit services, as appropriate and feasible. |
| **Financially Sustainable Plan** – Transit operating expenditures should be sustainable over time. | • The annual budget should be balanced and rely on available funding without dipping into reserves or depending on non-recurring sources of revenue.  
• Service levels and operating expenses should match available revenue.  
• New ongoing revenue streams should be put in place. |
Last year’s goals and objectives are included in Appendix H. These goals and objectives reflect both regional policies and more specific operational issues. As a result of the further definition of transit service planning and implementation roles and responsibilities of SANDAG and the transit agencies through recently adopted revisions to Policy No. 18, some of last year’s goals and objectives are more appropriately the responsibility of SANDAG, while others rest with the transit agencies. Therefore, in lieu of a detailed evaluation of progress toward meeting last year’s goals, a more general assessment is included in this report. (The detailed assessment of our progress in achieving the objectives is also included in Appendix H.) The transit agencies will continue to establish and monitor operational goals and objectives related to their system and services.

In general, progress has been made in several areas to address last year’s Regional Short-Range Transit Plan goals and objectives. The Metropolitan Transit System has initiated its Comprehensive Operational Analysis (COA) to identify service efficiencies and restructure services to better reflect travel patterns and market needs and improve system performance and quality. North County Transit District continues to implement and refine its Fast Forward service plan. Both transit agencies have extensive programs to obtain customer input on transit services, and SANDAG continues to provide support in this area through the passenger counting program and various passenger and resident surveys. Both SANDAG and the transit agencies have ongoing system and service performance monitoring programs (described below) to help assess areas needing improvement and identify programs, facilities, and other actions that can help achieve operational and regional goals. With the passage of the Proposition A TransNet sales tax extension, SANDAG has made progress in advancing several BRT projects, transit priority treatment programs (such as the freeway transit lane demonstration), and Smart Growth area planning to support the transit system and regional goals. The regional Smart Card fare collection equipment deployment is ongoing and the automated vehicle locator (AVL) demonstration continues.

SYSTEM EVALUATION

In addition to establishing regional goals and objectives for the transit system and annually evaluating progress toward meeting them, SANDAG monitors the transit system on a quarterly and annual basis to help guide adjustments to the region’s transit network and services in response to ever-changing mobility needs and operational environment and to maintain consistency with policies, goals, and objectives. Formal monitoring processes have been established to regularly evaluate the efficiency and effectiveness of the transit system. These are described below.

Quarterly Transit Agency Operating Performance Report. Transit agencies provide SANDAG with performance indicators for their transit operators on a quarterly basis. These data allow SANDAG to evaluate trends in the productivity and cost-effectiveness of the transit system by transit agency and mode of service (e.g., fixed-route, trolley, ADA paratransit, etc.). Performance during the current quarter and year-to-date is compared to the same quarter of the previous year to account for seasonal fluctuations in data. The comparison identifies changes to key performance indicators, including operating cost, fare revenue, ridership, passengers per revenue mile or hour, subsidy per passenger, farebox recovery ratio, and average fare. Large fluctuations in these indicators are investigated to determine the root cause of the change.

Performance Improvement Program (PIP). As part of the Transportation Development Act (TDA) administration, SANDAG is responsible for monitoring the cost-effectiveness of each transit agency and operator receiving TDA funds. The PIP evaluates the performance of each operator against several performance targets set by SANDAG and the transit agencies and operators on an annual basis. In addition, transit agencies and operators commit to productivity improvement strategies to be implemented
during the ensuing year, the statuses of which are evaluated through the PIP process. Finally, the transit agency’s and operator’s status in achieving the recommendations from the previous Triennial Performance Audit is evaluated.

In addition to the regional transit system evaluation and monitoring conducted by SANDAG, the transit agencies conduct more specific performance monitoring on an ongoing basis. These activities include maintaining a database of customer comments and complaints to assist with service evaluation and identify when immediate actions are needed to remedy operational deficiencies, annual route-specific performance evaluations, transit operator performance monitoring, as well as transit agency budget and operational evaluations.
CHAPTER 6: SHORT-RANGE TRANSIT WORK PROGRAM

The growing population and expansion of suburban development is resulting in increased trip-making and higher levels of traffic congestion. To address these growing pains and preserve our quality of life, SANDAG has developed an RCP and an RTV that represent a bold new approach to improving the region’s mobility through better coordination between transportation and land use planning. The RCP focuses our future growth in urbanized areas characterized by compact, efficient, and higher-density land uses to reduce our infrastructure needs and preserve our natural resources. To provide mobility within and between these “smart growth” areas, SANDAG adopted the complementary RTV as the framework for transit development in the region, and the RTP (Mobility 2030) to serve as the long-range (5-30 years) infrastructure and service improvement plan for implementing the RTV. Transit First is the implementation strategy for the RTV.

Establishing a short-range (0-5 years) transit work program to support the RTV and Transit First strategy is the purpose of the RSRTP. With unlimited financial resources we would be able to provide fast, frequent, and flexible service 24 hours per day, seven days per week, to all areas of the region. However, in reality, the region is faced with severe financial constraints that limit how and to what extent we can implement the RTV in the short-term. In addition, this funding deficit hinders our ability to provide basic mobility to our existing riders. Therefore, we must adopt an approach to developing the transit system that balances the basic mobility needs of our current riders with developing the world-class transit system envisioned in the RTV. An approach for doing this is incremental, short-term implementation of the Transit First strategy.

As stated in Chapter 3, improving the speed and schedule reliability of service, as well as avoiding traffic congestion, are the most important transit improvements for both existing and potential riders. For existing riders, improving the access of our services, both geographic and temporal (days and hours of service), is also an important factor, since they are largely transit-dependent. For our potential market of choice riders, we must focus on providing a travel experience that is competitive with the automobile. Therefore, our investment strategy should focus on improving the speed and reliability of transit service, while balancing the need to improve transit access with the need to provide a competitive travel experience.

This chapter outlines a short-range transit work program aimed at achieving a balanced transit improvement strategy. The first part of the work program identifies specific recommendations for improving basic mobility for our existing riders, including the FY 2005 Regional Service Implementation Plan that presents the new or revised services proposed for FY 2005 funding consideration. The second part of the work program describes the specific efforts we are undertaking to move toward the RTV.

IMPROVE BASIC MOBILITY

As stated in Chapter 4, the availability of transit service varies depending on the time of day and day of week. Although a high level of service is provided most of the time in the established urban areas of the region, other communities experience a significant reduction in service late at night and on weekends. In addition, the quality of service varies by route. Many routes experience overcrowding during peak work and school hours, while other routes demonstrate low schedule reliability due to congestion or high levels of wheelchair passenger boardings. Finally, as our population continues to age, more importance will need to be placed on providing additional transportation options for seniors. The first step toward achieving the RTV is to improve the basic mobility for our current ridership as identified below.
As presented in Chapter 3, the propensity of people to use our existing transit system is generally greater in communities with low income and low auto ownership. Figure 6.1 shows the areas of high transit propensity within the region. Chapter 3 also identified areas within the region that have a high level of trip attraction, including employment parks, retail centers, major regional attractions, and other destinations. Figure 6.2 shows the concentration of trip attractions throughout the region. As shown on Figure 6.3, areas of high transit propensity\(^4\) are generally located in urbanized areas south of Interstate 8, as well as Oceanside and Escondido. In contrast, major travel destinations\(^5\) are dispersed throughout the region.

Table 6.1 evaluates the service effectiveness between areas of high transit propensity (origin) and areas with greater trip attraction (destination). Twenty percent of the origin/destination pairs have “Good” service effectiveness based on fast travel times, easy connections, and high service levels when needed, while 42 percent have “Average” effectiveness and 38 percent have “Poor” effectiveness. Although service effectiveness between many of the travel pairs is considered "Poor," due to indirect routing, slow travel times, and limited service when needed, not all of these travel pairs warrant service improvements.

Table 6.2 shows the travel demand between each origin/destination pair. As presented, only 8 percent of the travel pairs demonstrate high travel demand, while the travel demand between a majority of origins and destinations is low. With our limited financial resources we should ensure that transit service between areas of high travel demand is “Good” before improving service between areas with low demand.

Table 6.3 compares service effectiveness with travel demand. Although service effectiveness is generally consistent with travel demand\(^6\), the following travel pairs are identified as having lower service effectiveness compared to their demand, and should be prioritized for service enhancement.

**MTS Area Service Gaps**

To address these needs in a fiscally constrained environment, MTS is conducting the COA. This comprehensive effort will restructure service to better serve today’s travel patterns and reduce operating subsidy requirements. The gaps identified in last year’s RSRTP, listed below, are being considered as part of the COA. As a result of the COA and the opening of the Mission Valley East LRT line, many of these gaps will be addressed in FY 2006.

\(^4\) Areas with both low income and low auto ownership.

\(^5\) Areas with 100 or more daily trips per acre.

\(^6\) Travel pairs demonstrating high travel demand generally have good service effectiveness, while areas with low travel demand have poor service effectiveness.
Figure 6.1
Concentration of Transit Propensity

Vehicles per Household
- Less than 1.5

Household Income
- Less than $30,000

SANDAG
Figure 6.2
Concentration of Travel Destinations

Trip End Attractions per Acre
- Less than 10
- 10 to 50
- 50 to 100
- 100 to 200
- Greater than 200
Figure 6.3
Combined Concentrations of Transit Propensity and Travel Destinations

- Transit Propensity
- Travel Destinations
### Table 6.1 - Service Effectiveness Between Origin/Destination Pairs

<table>
<thead>
<tr>
<th>Concentrations of Travel Destinations</th>
<th>Oceanside/Vista/San Marcos</th>
<th>Escondido</th>
<th>N. County Coastal</th>
<th>Poway Business Park</th>
<th>Sorrento Valley</th>
<th>Golden Triangle</th>
<th>Mira Mesa</th>
<th>Kearny Mesa</th>
<th>Pacific Beach/La Jolla</th>
<th>Ocean Beach</th>
<th>Linda Vista</th>
<th>Mission Valley</th>
<th>El Cajon/Santee</th>
<th>La Mesa</th>
<th>Mid City</th>
<th>Downtown SD</th>
<th>National City/W. Chula Vista</th>
<th>Bonita/Santee</th>
<th>E. Chula Vista</th>
<th>Imperial Beach</th>
<th>San Ysidro</th>
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- **GOOD** (Fast travel times, easy connections, service throughout the day, nights and weekends, high frequencies on major travel corridors during peak hour (15 minutes or less))
- **AVERAGE** (Medium travel times, up to two transfers required, limited night and weekend service, moderate frequencies on major travel corridors during peak hour (30-60 minutes))
- **POOR** (Slow travel times, indirect routing, more than two transfers required, none to very limited night and weekend service)
Table 6.2 - Travel Demand Between Origin and Destination Travel Pairs

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- **HIGH** (Greater than 20,000 trips per day)
- **MEDIUM** (Between 10,000 and 20,000 trips per day)
- **LOW** (Less than 10,000 trips per day)
Table 6.3 - Comparison of Service Effectiveness and Travel Demand

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- **POOR** (Service effectiveness is appropriate for travel demand)
- **MODERATE** (Service effectiveness is marginally appropriate for travel demand)
- **GOOD** (Service effectiveness is not appropriate for travel demand)
- **Mid-City to Mission Valley** – While a significant amount of service is provided in Mid-City and Mission Valley, there is little direct service connecting these two areas. Changes to Route 13 to be implemented with the opening of the Mission Valley East light rail extension in summer 2005 will provide more direct service between these two areas.

- **Euclid/Southeast San Diego to National City Area** – The limited service span and frequency of Route 603 between the Euclid Avenue Trolley Station and Plaza Bonita severely restricts Euclid and Southeast San Diego residents from accessing adjacent communities and using regional services at night and on weekends.

- **Internal Travel within National City Area** – Service is limited on the three National City Transit services (Routes 601, 602, and 603), which consistently prove to be some of the most productive services within the region’s transit system. In addition, there is currently no service to the industrial area on the west side of National City (west of Interstate 5).

- **San Ysidro Service** – Route 905 service should be expanded to provide more and better local service to address travel demand and provide connections to Otay Mesa.

- **Late Night and Weekend Service on Express Routes** – Enhanced service on existing express routes was been identified as a primary unmet need in the recently completed Welfare to Work Transit Study. Focus groups of CalWORK’s clients indicated that the same trip made on an express service during the weekdays would take nearly four times as long on the weekends.

- **Enhanced Summer Service on Routes 9 and 34** – Travel to SeaWorld, Belmont Park, and the beaches of San Diego is greatly increased during the summer months. As a result of budget deficits, additional summer service has been discontinued, resulting in severely overcrowded trips and poor schedule reliability.

- **Internal Travel within Downtown San Diego** – As a result of new residential development and changing travel patterns, transit services within, into, and out of downtown San Diego should be restructured to provide better internal circulation and more efficient interregional connections.

- **South Bay to Old Town or Fashion Valley Transit Center Express** – An express service from South Bay to Old Town or Fashion Valley Transit Center allowing existing passengers to bypass downtown congestion along Broadway. This service would also provide congestion relief along the north/south corridors in South Bay, and would address some of the capacity issues currently experienced on the trolley Blue Line.

- **Carmel Valley Service** – As a result of the employment and residential development in the Carmel Valley area, including new affordable housing complexes, transit demand to and from this area is increasing. While employment is cluster along El Camino Real and High Bluff Drive, residential areas are difficult to serve due to the low-density development and discontinuous street patterns. Service options include peak-hour service to employment areas, connections with the Coaster at the Solana Beach Station, and a lifeline link between Carmel Valley residents and the regional transit network.

- **Faster Service between La Jolla and Old Town or Downtown** – The long travel time on local routes between these destinations could be reduced through the provision of new express service or a system of transit priority treatments.

- **Schedule Coordination along I-15 corridor** – The numerous routes in this corridor tend to be scheduled to meet primary work schedules and, as a result, several buses arrive at stops in a short
time period followed by long time gaps. A comprehensive review of travel demand and the services in the corridor is being conducted as part of the COA.

- **University Avenue Mobility Plan Restructuring** – The community plan for the North Park area is being revised and transportation enhancements for University Avenue are a key element. There are opportunities to enhance bus operations and the quality of bus stops in the area.

**NCTD Area Service Gaps**

NCTD has numerous improvement needs that were identified in last year’s RSRTP, as listed below. While some were addressed in 2004, many were not due to budget constraints.

- **Weekend Service on Coaster** – Despite high demand, Coaster service operates limited hours on the weekdays and even less service on Saturdays. No Sunday service is currently provided. Due to budget constraints, no planning or implementation actions were taken for this service in 2004.

- **Temecula to Escondido Express** – The I-15 Interregional Partnership Project (IRP) has identified express transit service between Temecula and Escondido, as well as distributor shuttles at key destinations, as transportation solutions to the congestion problem along I-15 between Riverside and San Diego Counties. Due to budget constraints, no planning or implementation actions were taken for this service in 2004.

- **Del Mar Heights** – There is no coastal transit link between the Del Mar Heights area and Solana Beach as well as service to Sorrento Valley. NCTD’s Board has identified this gap as a regional priority.

- **San Elijo Hills** – This 3,000 home planned community south of San Marcos currently has no transit service. Twin Oaks Valley Road is projected to be constructed that links San Elijo Hill with Cal State San Marcos in 2007. Service request for service to San Marcos and to the COASTER have been received.

Based on a variety of factors including productivity, ridership, level of demand, cost-effectiveness, land use patterns, and other items, not all of these needs are equal. Some of them have higher priority than others. The assignment of priorities takes place as an interactive process between SANDAG and the transit agencies in the development of annual budgets.

**Service Deficiencies**

To enhance service for our existing riders and increase ridership on our transit system, we must also address the following deficiencies in the quality of service:

- **Overcrowding** – Overcrowded buses generally occur during peak work and school hours of the day, and have a direct and indirect effect on ridership. Not only do they deter potential passengers from using the service, the capacity constraint limits ridership despite higher demand. Overcrowding can be addressed by increasing service levels where and when it is needed, or by restructuring adjacent routes to accommodate the additional demand. SANDAG and the transit operators should work together to address overcrowding issues as efficiently and effectively as possible.

- **Maintain and Improve Transfer Opportunities** – Timed connections at convenient locations allow riders to efficiently transfer between services and complete their trips in a timely manner. This
concept is particularly important when service frequencies are low (greater than 15 minutes). As part of NCTD’s Fast Forward Plan, timed transfers were implemented at all key transfer locations to improve connections between services. MTS service schedules are also developed around a “pulse” concept in which all routes arrive and depart a transfer center at the same time, allowing for transfers between services to be coordinated and timed.

As a result of poor schedule reliability, as well as service and schedule adjustments, important timed transfers have been lost, requiring passengers to wait up to 60 minutes for the next bus. Since the RTV is developed around a concept of interconnected services, it is important that timed transfer opportunities are maintained and improved at major regional transfer locations, including transit centers in El Cajon, Escondido, Euclid, Fashion Valley, Grossmont Center, H Street, Oceanside, Old Town, and University Towne Centre.

**FY 2006 Regional Service Implementation Plan**

With limited financial resources, we are faced with difficult choices when deciding future transit investments. Each year, SANDAG develops its Regional Service Implementation Plan to guide system improvements to address gaps and deficiencies in service and implement the concepts of the RTV. However, due to current funding constraints, SANDAG and the transit agencies must adjust and, in some cases, reduce existing services while simultaneously striving to improve basic mobility and implement the concepts of the RTV.

Each year, the region’s transit operators submit their individual Service Implementation Plans (SIP) to SANDAG for consideration. The SIPs list the proposed changes and new services each transit operator recommends for implementation to meet existing service gaps and deficiencies within their operations. SANDAG combines these individual SIPs into a Regional SIP (RSIP) that includes improvements proposed by transit operators as well as SANDAG staff. In years when additional funding is expected to be available, proposals for new services are prioritized and recommended for funding consideration based on a regional evaluation process established in accordance with SANDAG Policy No. 18, Regional Transit Service Planning.

As has been the case for the last several years, no additional funds are expected to be available for transit operations in FY 2006. Transit operators will receive regional operating funds in the same proportion as in the past, with approximately 70 percent allocation to MTS and approximately 30 percent to NCTD. Therefore, only those service improvements proposed by MTS and NCTD are included in this year’s RSRTTP; no SANDAG proposals are included. This year, no regional priorities for these service proposals have been established since implementation is dependent on each transit agency’s ability to implement the services within available funding levels. SANDAG’s role in service implementation will include a determination that new and revised service proposals are consistent with the goals and objectives of the RSRTTP, in general with development of the RSRTTP and, more specifically, at the time the transit agencies propose to implement the services. In future years, SANDAG will establish regional priorities for service improvements in the RSIP through an evaluation methodology linked to the RSRTTP framework, goals, and objectives.

Table 6.4 reports SANDAG’s review of the proposed service changes for consistency with the RSRTTP Goals and Objectives, addressing identified needs and deficiencies, and conforming to the Regional Consistency Checklist. All of the proposed changes meet two or more of the adopted Goals and Objectives, and have been found to be consistent with SANDAG’s efforts to improve the region’s transit system.
The MTS service proposals included in this year’s RSRTP are expected to change substantially to reflect the results of the COA. The current service proposals are listed in Table 6.5 in route number order without an assigned priority by MTS. The NCTD services are listed in the priority established by the NCTD Board.

The RSIP is the basis for the transit agencies to develop their annual operating budgets for SANDAG adoption. Service changes are then implemented by the transit agencies and operators during one of the regularly scheduled service changes (summer, fall, and winter) held throughout the year. Table 6.5 presents the proposed service changes for FY 2006.

A key service issue to be resolved is the provision of transit service in Carmel Valley. SANDAG, MTS, and NCTD will continue their joint efforts in FY 2006 to provide cost-effective service in this growing area.
Table 6.4  Service Change Consistency with RSRTP Goals and Objectives

<table>
<thead>
<tr>
<th>Proposed Service Change</th>
<th>Regional Transit System Development</th>
<th>System Productivity</th>
<th>Capital Investments</th>
<th>Network Connectivity</th>
<th>Travel Demand</th>
<th>Customer Experience</th>
<th>Smart Growth</th>
<th>Financial Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission Valley East Connectors</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<tr>
<td>Frequency Improvements</td>
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<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<tr>
<td>New Service in San Ysidro/Otay Mesa</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<tr>
<td>NCTD</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Frequency Improvements</td>
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<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<tr>
<td>Added Coaster Connection Trips</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
</tr>
<tr>
<td>Coaster Rail2Rail &amp; Petco Park Service</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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<tr>
<td>New Circulators</td>
<td>★★★★★★★★★★</td>
<td>★★★★★★★★★★</td>
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</tr>
</tbody>
</table>
Table 6.5  FY 2006 Regional Service Implementation Plan

<table>
<thead>
<tr>
<th>Operator</th>
<th>Route</th>
<th>Service Proposal Descriptions</th>
<th>Pass/Hour</th>
<th>Sub/Pass</th>
<th>Annual Subsidy</th>
</tr>
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<tbody>
<tr>
<td>Mission Valley East Service Changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTS</td>
<td>1</td>
<td>Extend to terminate at new 70th Street Trolley Station.</td>
<td></td>
<td></td>
<td>$14,308</td>
</tr>
<tr>
<td>MTS</td>
<td>13</td>
<td>Restructure to provide service between Euclid and new San Diego State University Trolley stations, and extend along</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Montezuma Road to 73rd Street and El Cajon Boulevard.</td>
<td></td>
<td></td>
<td>$132,283</td>
</tr>
<tr>
<td>MTS</td>
<td>14</td>
<td>New route to serve the former Route 13 alignment in Mission Valley.</td>
<td></td>
<td></td>
<td>(included with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Route 13 figure</td>
<td></td>
<td></td>
<td>Route 13 figure</td>
</tr>
<tr>
<td>MTS</td>
<td>18</td>
<td>New route to replace Route 81 service between new Grantville and Rio Vista Trolley Stations.</td>
<td></td>
<td></td>
<td>$120,693</td>
</tr>
<tr>
<td>MTS</td>
<td>81</td>
<td>Discontinue with opening of Mission Valley East trolley line.</td>
<td></td>
<td></td>
<td>($858,579)</td>
</tr>
<tr>
<td>MTS</td>
<td>876</td>
<td>Extend along Lake Murray Boulevard and Fletcher Parkway to replace a portion of Route 81.</td>
<td></td>
<td></td>
<td>$72,718</td>
</tr>
<tr>
<td>MTS</td>
<td>936</td>
<td>Extend to terminate at the new 70th Street Trolley Station.</td>
<td></td>
<td></td>
<td>($8,055)</td>
</tr>
<tr>
<td>Other Changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTS</td>
<td>11</td>
<td>Increased frequency and longer span of service on weekday evenings between 8 p.m. to 11 p.m. on existing routing.</td>
<td>27</td>
<td></td>
<td>$57,943</td>
</tr>
<tr>
<td>MTS</td>
<td>13</td>
<td>Weekday peak-period frequency enhancement to every 15-minute on existing routing.</td>
<td>33</td>
<td></td>
<td>$230,400</td>
</tr>
<tr>
<td>MTS</td>
<td>815</td>
<td>Increase frequency from 60-minute to 30-minute Saturdays between 10:00 a.m. and 5:30 p.m. only on existing routing.</td>
<td>33</td>
<td></td>
<td>$3,246</td>
</tr>
<tr>
<td>MTS</td>
<td>905 West</td>
<td>New service Saturdays 6:30 a.m. to 6:00 p.m. between San Ysidro/Tijuana and Iris Avenue Trolley Stations, with a few trips</td>
<td>24</td>
<td></td>
<td>$6,688</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to Otay Mesa.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTS</td>
<td>908</td>
<td>Increase frequency from 30- to 15-minute on Saturdays 9:30 a.m. to 5:30 p.m. on existing routing.</td>
<td>25</td>
<td></td>
<td>$24,801</td>
</tr>
<tr>
<td>MTS</td>
<td>929 South</td>
<td>Increase frequency from 30- to 15-minute on weekends 10:30 a.m. to 5:30 p.m. between 8th Avenue and Iris Avenue Trolley Stations.</td>
<td>33</td>
<td></td>
<td>$58,617</td>
</tr>
<tr>
<td>Operator</td>
<td>Route</td>
<td>Service Proposal Descriptions</td>
<td>Pass/Hour</td>
<td>Sub/Pass</td>
<td>Annual Subsidy</td>
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<tr>
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</tr>
<tr>
<td>MTS</td>
<td>932 South</td>
<td>Increase frequency from 30- to 15-minute on weekends (7-hour period, roughly 10:30 a.m. to 5:30 p.m.) between Bayfront/E Street and San Ysidro/Tijuana Trolley Stations.</td>
<td>36</td>
<td>$0.48</td>
<td>$54,295</td>
</tr>
<tr>
<td>MTS</td>
<td>936</td>
<td>15-minute frequency weekdays 6 a.m. to 9 a.m. and 1 p.m. to 5 p.m. between College Grove and 70th Street.</td>
<td>32</td>
<td>$0.71</td>
<td>$75,490</td>
</tr>
<tr>
<td>MTS</td>
<td>955</td>
<td>Increase frequency from 30- to 15-minute on Saturdays 10:00 a.m. to 5:00 p.m. on existing routing.</td>
<td>33</td>
<td>$0.62</td>
<td>$30,227</td>
</tr>
<tr>
<td>NCTD</td>
<td>303</td>
<td>15-minute service between 5:00 and 8:00 a.m., weekdays.</td>
<td>30</td>
<td>$0.78</td>
<td>$29,763</td>
</tr>
<tr>
<td>NCTD</td>
<td>303</td>
<td>15-minute service 7:00 a.m. and 2:00 p.m., weekdays.</td>
<td>22</td>
<td>$1.37</td>
<td>$191,764</td>
</tr>
<tr>
<td>NCTD</td>
<td>COASTER</td>
<td>Renew Rail2Rail Program, all days.</td>
<td>150</td>
<td>$13.47</td>
<td>$161,600</td>
</tr>
<tr>
<td>NCTD</td>
<td>Carlsbad Coaster Connection Palomar South</td>
<td>Provide five trips to meet COASTER on weekdays.</td>
<td>8</td>
<td>$1.99</td>
<td>$20,247</td>
</tr>
<tr>
<td>NCTD</td>
<td>COASTER</td>
<td>Continue later evening Petco Park service, summer weekdays only.</td>
<td>125</td>
<td>$2.60</td>
<td>$65,000</td>
</tr>
<tr>
<td>NCTD</td>
<td>Carlsbad Village Coaster Connection</td>
<td>Add five morning and afternoon trips.</td>
<td>10</td>
<td>$1.07</td>
<td>$13,665</td>
</tr>
<tr>
<td>NCTD</td>
<td>388</td>
<td>Improve to 90-minute frequency, weekdays.</td>
<td>15</td>
<td>$2.72</td>
<td>$155,794</td>
</tr>
<tr>
<td>NCTD</td>
<td>Plaza Camino Real Shopping Shuttle</td>
<td>New circulator from Plaza Camino Real to Pacific Coast Plaza and El Camino North Shopping Center, 60-minute service in both directions between 9:00 a.m. and 5:00 p.m., seven days a week.</td>
<td>16</td>
<td>$3.24</td>
<td>$302,854</td>
</tr>
<tr>
<td>NCTD</td>
<td>Solana Beach to Sorrento Valley Coaster Station</td>
<td>New route from Del Mar Highlands to Sorrento Valley COASTER Station and UTC. 15-minute service weekdays between 5:30 a.m. and 8:30 p.m. Saturday service from 9:00 a.m. to 6:00 p.m.</td>
<td>10</td>
<td>$6.68</td>
<td>$535,845</td>
</tr>
<tr>
<td>NCTD</td>
<td>C-Side Shuttle Coaster Connection</td>
<td>Add nine weekday trips from Del Mar Heights and Solana Beach to Solana Beach COASTER Station between 5:00 and 8:00 a.m., and 4:00 to 7:00 p.m.</td>
<td>8</td>
<td>$11.00</td>
<td>$246,832</td>
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<tr>
<td>NCTD</td>
<td>338</td>
<td>Extend all trips to Quarry Creek Shopping Center, weekdays and Saturdays.</td>
<td>12</td>
<td>$0.10</td>
<td>$422</td>
</tr>
<tr>
<td>NCTD</td>
<td>347</td>
<td>New 120-minute frequency from 8:00 a.m. and 6:00 p.m., Sundays/holidays.</td>
<td>5</td>
<td>$13.07</td>
<td>$37,980</td>
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<tr>
<td>NCTD</td>
<td>347</td>
<td>Restore 60-minute service on Saturdays.</td>
<td>5</td>
<td>$8.98</td>
<td>$21,005</td>
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<tr>
<td>Operator</td>
<td>Route</td>
<td>Service Proposal Descriptions</td>
<td>Pass/Hour</td>
<td>Sub/Pass</td>
<td>Annual Subsidy</td>
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</tr>
<tr>
<td>NCTD</td>
<td>Poinsettia Station via Alga Road to Palomar College Transit Center</td>
<td>Add 60-minute service between 5:30 a.m. and 8:30 p.m. weekdays. Add 11 trips from 6:30 a.m. and 7:30 p.m.</td>
<td>11</td>
<td>$3.59</td>
<td>$532,628</td>
</tr>
<tr>
<td>NCTD</td>
<td>347</td>
<td>Extend service from 7:00 p.m. to 9:00 p.m., weekdays</td>
<td>6</td>
<td>$7.34</td>
<td>$44,913</td>
</tr>
</tbody>
</table>
**Outlook for FY 2006 – A Focus on Efficiency**

Due to the current budget deficit, there will be little or no additional FY 2006 operating funds available to implement the new services identified in this year’s RSIP. In fact, service reductions and adjustments to MTS services may be required to help balance the FY 2006 operating budgets. Therefore, to balance transit operating budgets and implement any of the services identified in the FY 2005 RSIP, transit agencies must focus on increasing the efficiency of the existing services. NCTD completed its Fast Forward: Strategic Business Plan in 1999 to improve the efficiency of its services. MTS is conducting the COA to identify service efficiencies that will help reduce the operating budget. The following are strategies that will be considered in the COA and help increase regional cost-efficiency, achieve operating budget targets, and identify inefficient resources that can be reallocated to implement new services identified in the FY 2006 RSIP.

- **Service Reductions and Operational Efficiencies** – Since FY 2003, MTS transit operators have had to reduce services and implement operational efficiencies to help address the current operating budget deficit. This trend is expected to continue for the next few years. In addition, further reduction of ineffective services can free resources to be used to implement more productive services identified in the FY 2006 RSIP. The following general guidelines should be followed when developing future service reductions:

  o Identify the most unproductive services within the transit system.\(^7\)
  o Reduce unproductive trips and/or reduce overall frequencies on these services while preserving a lifeline level of service (minimum of 60-minute frequencies operating on weekdays).
  o If additional service reductions are required, begin eliminating unproductive trips on more productive services.
  o Restructure services to better meet changing travel demands and land uses. This effort is currently being evaluated through the COA.

- **Eliminate Duplication of Services** – At times, transit routes are developed that duplicate other services. This duplication results in lower efficiency and effectiveness since we are competing with ourselves for the same travel market. Therefore, duplicative services should be eliminated or restructured, and the resources from these services should be reinvested in new enhancement opportunities. Current examples of duplicative service include:

  o Routes 980/990 and 860.
  o Routes currently serving the Sprinter alignment (existing services should be restructured in conjunction with the opening of this service).
  o Downtown San Diego services.
  o Fourth, Fifth, and Sixth Avenue services in San Diego.

- **Specific Operator Performance Improvement Recommendations (PIR)** – As part of SANDAG’s Transportation Development Act (TDA) Performance Improvement Program, each transit operator is required to develop annual recommendations for improving its performance and cost-efficiency. A list of the PIRs for FY 2005 implementation is presented in the technical appendix.

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\(^7\) Rank all transit routes together by passengers per hour, and identify lowest performers based on a threshold to be determined by SANDAG during the annual operating budget development process.
MOVING TOWARDS THE REGIONAL TRANSIT VISION

Due to financial constraints, the RTV Mobility 2030 transit network must be implemented in phases. The transit work program outlines SANDAG’s short-term efforts to migrate existing services towards the RTV, and mid-term efforts to develop new services.

**Migrating Existing Services Toward the RTV Concepts**

Not only does improving the speed and schedule reliability of existing transit services begin to implement the concepts of the RTV, it has the greatest promise of enhancing service for existing riders as well as attracting new customers. Although many existing services provide a high level of transit access to major recreation and employment centers, they are often slow and unreliable due to traffic congestion and frequency of bus stops. Using transit priority measures and appropriate bus stop planning, slow and unreliable transit services can be enhanced to provide a base level service consistent with the RTV.

- **Transit First Now!** – The Transit First Now! program is designed to identify and develop strategies that will allow existing transit services to bypass congested areas, speed up service, and make it more reliable. Implementation of these strategies will help initiate the RTV using existing services to test and evaluate various concepts for broader applications. Transit First Now! strategies include transit priorities and bus stop consolidation.

As mentioned in Chapter 4, priority measures such as signal prioritization, queue jumpers, HOV/managed lanes, conversion of freeway shoulders to transit lanes, and exclusive bus lanes allow bus service to maintain high speeds and reliable schedules through heavily congested areas. As part of the Transit First Now! project, we have identified key congestion hot spots that are currently impacting our services, and are evaluating priority strategies to address these congested areas.

In addition to costly priority treatments, SANDAG and the transit agencies are evaluating no-cost approaches to improving speed and schedule reliability, including the regional bus stop consolidation program. Since bus stop placement has a significant impact on the speed and reliability of service, proper bus stop location must strike a balance between access and efficiency. Bus stops should provide convenient and easy access to major destinations, at junctions with other routes for transfer opportunities, and in areas with high ridership. Although placing more stops along a route may improve access, too many stops negatively impacts quality of service, travel time, operating costs, productivity, and efficiency. Therefore, bus stops should be strategically placed to maximize access, while the number of stops along a route should be minimized to achieve greater operating speeds, efficiency, and quality of service. SANDAG and MTS have implemented a successful bus stop consolidation pilot project on Route 11 that will help in developing regional guidelines for bus stop planning.

**Develop New Services to Support the RTV**

A primary concept of the RTV is an enhanced system of corridor and regional services that act as high speed overlays to supplement the basic mobility provided by the existing transit service. The RTV also envisions a set of complementary neighborhood circulators that provide feeder services to corridor and regional services as well as internal community circulation. Together, these new services will provide the improvements necessary for transit to provide the level of mobility necessary to support the RCP. Transit First is the implementing strategy for the RTV.
To support the RCP, we must develop transit services that link efficient and “smart” land uses together to provide a competitive alternative to the personal automobile. Based on our market research, competing with the automobile requires an emphasis on speed, flexibility, and the customer’s travel experience. Mobility 2030 outlines a system of enhanced corridor and regional services that complement our existing transit network by providing fast, flexible, and pleasant transportation between urban centers and along major employment, retail, and commercial corridors. These services are designed to attract new rider markets by making transit a “first choice” for many trips.

Currently, two types of higher-speed services are provided as part of the region’s transit system. The first type is the Regional Services. The purpose of these services is to provide fast and direct service from residential areas to major employment centers. As such, they operate primarily during weekday peak hours. To increase speeds and provide point-to-point service, few stops are provided between the origin and destination of the route. Regional Services are an important component of the transit system, particularly as people move further away from their jobs, or when distinct urban centers begin to emerge throughout the region under the RCP. However, they are generally expensive to operate, due to low passenger turnover and high mileage, and are provided sparingly, only during the times and days they are most needed. The Coaster commuter rail service and I-15 express services (Routes 810, 820, 850, 860, and 870) are examples of Regional Service.

The second type of higher-speed service is Corridor Services. Unlike Regional Services, these routes act as a higher-speed overlay to local service operating along major employment, retail, and commercial corridors with travel destinations distributed evenly along the route. Corridor Services generally share stops with its complementary local service. However, the stops are limited, but evenly distributed, along the entire length of the route to provide faster service along the corridor. These services operate throughout the day and often on weekends. The Blue and Orange Trolley lines and Routes 30 and 50 are examples of Corridor Services.

Under the RTV and Mobility 2030, Regional and Corridor services will be enhanced to provide the speed, flexibility, level of service, and amenities that are needed to better compete with the private automobile. Through transit priorities and as described in Chapter 4, these services will provide similar, if not faster, travel times compared to driving alone. Advanced technology will improve the customer’s travel experience through amenities such as real time vehicle location, enhanced customer information vehicles and at stations, automated fare collection, and advanced vehicle design. Station enhancements will provide a safer, more attractive, and pleasant waiting environment for our customers. Finally, greater frequency of service operating throughout the day and week will provide the flexibility to make transit a viable transportation option for San Diegans.

Although SANDAG is developing long-range plans for the full RTV network of regional and corridor services, the following mid-term Mobility 2030 services currently being developed will be the first applications of the RTV concepts. These transit projects and services are included in Program of Projects Expenditure Plan in the TransNet sales tax extension approved by San Diego County voters in November 2004. As these projects are implemented, existing duplicative services should be restructured to provide complementary feeder and collector service, or to address an unmet need.

- **Showcase Project** – This project is designed to showcase the full Transit First customer experience that includes new-design vehicles, upgraded stations, transit priority treatments, a close integration of transit into land use planning around stations, level boarding, smart card fare collection, and real-time passenger information technology. The Showcase Project is intended to provide an example of, and generate support for, the comprehensive RTV network of services, as well as provide a “laboratory” for testing and learning how to achieve the RTV experience.
The Showcase Project will be operated between San Diego State University and downtown San Diego via El Cajon and Park Boulevards. The service is expected to operate from early morning to late at night, every ten minutes on weekdays and weekends. SANDAG and the City of San Diego are working on a planning and preliminary engineering analysis of the Showcase Project, in addition to preparing an environmental document and an operating plan. The service is expected to be initiated in the next 3-5 years.

- **I-15 Managed Lanes/Bus Rapid Transit (BRT) Project** – Caltrans and SANDAG are jointly working to develop the North I-15 Managed Lanes/BRT facility between SR 163 and SR 78. This project will include the construction of a four lane, bi-directional managed lane facility in the freeway median that will grant priority access to carpools and BRT services. A series of direct-access ramps will connect the managed lanes to BRT stations located in Mira Mesa, Sabre Springs, Rancho Bernardo, South Escondido, and downtown Escondido.

  This project will provide the capital facilities to operate regional services along the increasingly congested I-15 corridor. The design of the stations will also be enhanced, and automatic fare collection and real-time passenger information will be provided. As construction of this project nears completion, SANDAG will work with the region’s transit agencies to develop an operating plan and purchase vehicles to provide fast, reliable, and flexible service along this corridor.

  Construction of the Managed Lanes between SR 56 and Center City Parkway began in summer 2004 and is scheduled to be competed by the end of 2007. Final design for three of the BRT stations is nearing completion (Del Lago/South Escondido, Rancho Bernardo, and Sabre Springs/Penasquitos) and construction is scheduled to begin between spring and fall 2006. They would begin operation when the Managed Lane project is completed.

- **Super Loop** – The Super Loop will provide enhanced circulation in the heart of University City connecting University of California, San Diego (UCSD) and University Towne Centre (UTC) and Transit Center. In addition to internal circulation, the Super Loop will provide a core distribution service for other existing and planned transit services in the area. The Super Loop Project includes construction of stations and implementation of priority treatments. A Request for Qualifications process for a consultant to perform Preliminary Engineering and environmental documentation will be issued in early 2005.

- **South Bay BRT Project** – As a result of increased border traffic from Mexico and the rapid growth in South Bay (particularly eastern Chula Vista), SANDAG is currently working with Caltrans, local jurisdictions, and developers to implement a South Bay to downtown San Diego BRT project. This service is initially anticipated to extend from downtown San Diego to eastern Chula Vista with an ultimate connection to the Otay Mesa border crossing. The service will use the right-of-way dedicated along East Palomar Road in Otay Ranch to provide a vital link between the transit-oriented residential development and the employment, retail, and entertainment destinations in downtown San Diego.

  SANDAG awarded a contract in July 2003 to conduct advanced planning and preliminary engineering for the South Bay BRT Project. In addition, this project is a candidate for application of the freeway transit shoulder lane concept in the interim until the I-805 managed lanes are constructed.

- **Escondido BRT/Transit Priority Study** – SANDAG, in cooperation with NCTD and the City of Escondido, will conduct a preliminary study in spring 2005 to develop, screen, and recommend the appropriate transit priority measures for NCTD Route 350. This six-mile route operates between the

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8 Full project completion anticipated in 2010 with usable segments complete in 2007.
Escondido Transit Center in downtown Escondido and Westfield Shoppingtown–North County shopping mall. Measures to be evaluated include traffic signal priority for transit vehicles, queue jumpers to give the bus an advantage at congested intersections, and dedicated lanes to increase transit's competitiveness and reliability.

Route 350 carries more than 2,100 riders each weekday and is one of the more heavily used NCTD routes. Weekday service runs every 15 minutes and the route suffers from congestion in key locations during the morning and evening commute periods. The route serves several major activity centers including the Westfield Shoppingtown–North County shopping mall, San Pasqual High School, Bear Valley Middle School, the downtown Escondido area, and the transit center (which will be the terminus for SPRINTER light rail service beginning in 2007). A future focus will be to conduct advanced planning/preliminary engineering on the recommended transit priority measures in FY 2006.

In addition to the corridor and regional services described above, SANDAG and the region’s transit agencies are planning and constructing three new rail lines to extend the network of rail service in the region.

- **Mission Valley East Light Rail (Trolley) Extension** – The Mission Valley East light rail extension will close the gap between the existing San Diego Trolley Blue Line at Mission San Diego and the Orange Line at the Grossmont Transit Center. When completed, this extension will create a light rail loop around the greater San Diego metropolitan area bordered by I-8 to the north, SR 94 to the south, SR 125 to the east, and I-5 to the west. Direct service will be provided to San Diego State University, as well as between east county suburban communities and Mission Valley, Old Town, and the coastal communities adjacent to Mission Bay.

  This project has been under construction since 2000, and is anticipated to be completed and open for service in mid-2005. The project includes a tunnel and underground station at San Diego State University that will serve to provide front door access to the university and adjacent redevelopment projects. Bus services in the corridor will be restructured to support the new rail line and enhance access to the surrounding communities.

- **Sprinter Rail Line** – The Sprinter rail line will provide fast and reliable service between Oceanside and Escondido along the SR 78 corridor. Once completed, 15 new stations will be constructed, including a station at Cal State University in San Marcos. The Sprinter is anticipated to relieve the growing congestion along the SR 78 corridor as well as providing east/west connections to north/south regional services such as the Coaster, Amtrak, Metrolink, and regional bus service. NCTD has awarded the construction contract and materials are being ordered and delivered. The Sprinter is scheduled to begin operations in December 2007.

- **Mid-Coast Light Rail Line** – The Mid-Coast Line would extend from the Old Town Transit Center along the I-5 corridor to UCSD and University City. With the passage of the TransNet Extension, planning and engineering will be resumed for this project. The existing environmental clearance for the first segment to Balboa Avenue will be reevaluated, and preliminary engineering and environmental clearance will be undertaken for the line north of Balboa Avenue. Consultant selection activities will begin in early 2005.
Neighborhood Services

While regional and corridor service provides the backbone to the future transit network, a system of neighborhood circulators must be developed to provide feeder service to and from the regional services. Neighborhood services should also provide convenient community circulation to local and regional trip attractions. The following are services that are currently being developed to enhance neighborhood circulation.

- **Downtown Circulators** – To better coordinate transportation and land use planning, SANDAG and the Centre City Development Corporation (CDCC) conducted a Downtown Comprehensive Transit Study to develop a new transit service and operating strategy for downtown San Diego. Central to the transportation needs of the project area is better internal circulation to link the various neighborhoods and attractions of downtown San Diego. The results of the study have been incorporated into CCDC’s community plan update. Included in the proposals is a loop shuttle that could run on Ash, A, 13th, and Market Streets, and Kettner Boulevard. The alignment is expected to be refined and could change as implementation planning takes place. Also included in the plan is a proposal for a local shuttle between various downtown locations and Balboa Park. The COA currently being conducted by MTS will also consider downtown transit operations and some of the services may be restructured to provide more of a circulator function.

- **Pacific Beach/Mission Bay Circulator** – Pacific Beach and Mission Bay are home to many of San Diego’s finest regional attractions, including SeaWorld, Belmont Park, Garnet Avenue, and the beach. Convenient connections from Old Town Transit Center to these destinations have been identified as unmet needs through the long-range transit development plan for the north bay and beach area. The completion of the Mission Valley East light rail extension will also increase transit demand between Pacific Beach, with a large student population, and SDSU via Old Town. Finally, redevelopment activities at the Sports Arena and Midway provide additional opportunities for transit demand and transit/land use coordination. SANDAG is currently developing service concepts to address the transit needs in the north bay and beach area, including a circulator connecting Old Town with the attractions of Pacific Beach.

- **Nobel Coaster Station Feeder Service** – A new Coaster station is planned at Nobel Drive in the UTC area. When completed, this station will provide new opportunities for Coaster passengers accessing destinations in the UTC area, as well as University City residents accessing Coaster destinations in North County. SANDAG has completed a Nobel Coaster station bus feeder study to identify opportunities to provide feeder service to and from the Coaster station with existing as well as proposed new services.

- **Showcase Project Feeder Service** – The Showcase Project will connect two major destinations, SDSU and downtown San Diego, via one of the most transit oriented corridors in the region. However, as a regional service, bus stops will be spaced farther apart than for local services, limiting direct access to the route. Therefore, to increase the ridership and productivity on this route, feeder services will be developed as part of a Mid-City Transit Network study to improve transit service in the area.

- **Poinsettia COASTER Station Reverse Commute Shuttles** – NCTD has implemented two reverse commute shuttles (Routes 444 and 445) providing reverse commuter opportunities from San Diego to work in the Palomar Airport Road corridor. These shuttles have been in operation since January 2003.
- **Carlsbad Station COASTER Connection** – NCTD plans to implement a new service in May 2005 linking eastern Carlsbad with the Carlsbad Village COASTER Station. The purpose of the service is designed to relieve parking congestion at the station as well as expand ridership.

**Marketing and Public Information**

An important component of the successful implementation of transit projects will be the execution of branding and marketing programs. The communications and marketing tactics selected will be implemented in stages, and will be directed at progressively larger audiences as projects unfold, effectively increasing awareness and understanding of the program among elected officials, community stakeholders, and the public at large. A specific branding program developed under the Transit First strategy will help translate the goals of the RTV "customer experience" into vehicle and station designs.

As a complement to the marketing program, we must be effective in disseminating information to the public. We should employ various media that have the greatest impact on capturing the largest audience. Signage at stations and on vehicles should be clear and concise and direct riders to their services as effectively as possible. Finally, information on all of our services should be provided in appropriate languages based on the specific service area audience.
Please forward to the full SANDAG board and to the Transportation Committee...

Recent concern on the Board that the TransNet plans should be thoroughly benefit/cost analyzed before rushing ahead with them is completely proper. There are better schemes that are more cost-effective than the Prop A plan and that will provide more congestion relief - without attempting to force the public to change its traveling behavior. These employ movable barriers at congestion points on all freeways and eventual automation of the entire system when that becomes feasible - probably well before 2048 - as discussed by Gary Gallegos in his Metropolitan Magazine article in 1999:

http://www.sandiegometro.com/1999/apr/transportation.html

This schematic diagram compares the better schemes with the present HOV/managed lane approach, which is the least effective and most costly solution:
COMPARISON - HOV/MANAGED LANES VS. MOVABLE BARRIERS VS. FULLY AUTOMATED OPERATIONS

Freeway Scheme A: Has 4 HOV/managed lanes with movable barriers (MB) to adjust in/out lanes in the rush directions. These are separated from the general lanes by fixed barriers and thus require very expensive overhead direct access ramps and HOV-HOV connectors for convenient access and egress. 12 total lanes are provided with the HOV/managed lanes adjustable up to 4 lanes in one direction. The general lanes cannot be adjusted and will continue to be congested in the rush direction but continue to have the most convenient access and egress.

Freeway Scheme B: Dispenses with the less efficient HOV/managed lane concept and relies instead on movable barriers to adjust the allocation of in/out lanes across the entire freeway according to demand - per Gallegos' suggestion. All lanes are contiguous for most flexibility and allows the gain of 2 or more additional lanes without expanding freeway width. All lanes are general lanes; access and egress are convenient. No costly direct access ramps or HOV-HOV connectors are required. This is a far more flexible scheme than A., better able to adjust to rush hour demand - and will be far less costly. It benefits all vehicles equally; it does not discriminate against SOVs or require a change in the public's traveling preferences. And, it can be easily adapted to future automated operation as Gallegos envisioned.

Freeway Scheme C: Adds automated vehicle operation to Scheme B. Automated operation was successfully tested in 1997 and is expected to nearly double freeway capacity. It should become practical well before 2048 and could alone solve freeway congestion problems to and beyond 2048. No additional right of way need be acquired or new freeways built. Automated lanes can be narrower, so more lanes can occupy the same space. Lane widths can also be adjusted to accomodate larger vehicles as needed, preferably during non-rush hours. This would be the most flexible scheme to adapt to varying rush hour demand and would benefit all classes of vehicles equally. Dual-mode operation is possible, with vehicles under driver control on local feeder roads but switching over to automated operation on freeways and principal arterials. Inductive electric power transfer could be accomplished from cables in the pavement of each lane. These would not only power the vehicles on the freeway, but charge their batteries at the same time for off-freeway operation. This would make electrically powered vehicles practical again. No hydrocarbon fuels or expensive hydrogen would be required, so this would be the best solution environmentally.

02/28/2005
Hard-nosed engineering analysis would show schemes B and C the most cost-effective and also the most acceptable to the public. They should replace the HOV/managed lanes Prop. A scheme as the best use of taxpayer funds.

Bus rapid transit can benefit as well from both schemes B and C. Dedicated bus lanes, traffic signal priority, queue jumpers and other measures obstructing general traffic flow would not be necessary. Attempts to force the public to ride transit could be abandoned, as they are apt to fail and result in more congestion rather than less. This combined transit and general use in B and C would then provide the maximum total travel capacity, unlike scheme A.

John Suhr
619-461-1246
**New FIGURE 1.2**

**ROLES AND RESPONSIBILITIES**

**FOR SERVICE PLANNING AND IMPLEMENTATION ACTIVITIES**

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<tr>
<th>TRANSIT AGENCY</th>
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<td>Feeder Bus Studies/BRT Supporting Networks**</td>
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<td>Service Provision</td>
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* Includes Mid-Coast, Super Loop, Showcase, I-15, Escondido Blvd/Bear Valley Pkwy, and Otay Mesa to Downtown

**Includes supporting networks for BRT/Rail projects listed above**

- Lead - Primary or Lead Function
- Support - Support Function
Step 1: Establish Policy Framework
- SANDAG
- Transit Agencies

Step 2: Develop Service Proposals & Plan
- SANDAG
- Transit Agencies

Step 3: Develop Budgets
- Transit Agencies

Step 4: Implement Service
- Transit Agencies

Regional Short Range Transit Plan Service Planning Framework & Guidelines
- Goals and Objectives
- Needs and Deficiencies
- Parameters and Performance Standards
- Regional Consistency Checklist

Service Proposals - New and Revised

RSRTP Adoption
- Consistency & Priority Determination
- Plan & Program Public Hearing

Regionally Significant Changes

Local & Minor Changes

SANDAG Approves Transit Agency Budgets for Funding
- Budget Public Hearing

Transit Operating Budget Development

SANDAG

Administrative Review of Service Consistency or Finding of Overriding Considerations
(Refer to Transportation Committee, if necessary)

Advise SANDAG

Public Hearings
- At Transit Agencies

Locally Significant

Service Changes Occur Three Times a Year:
- Feb-Aug/Sept
- Nov-May/Jun
- May-Jan/Feb

Administrative Re-Review of Service Consistency or Finding of Overriding Considerations
- If public hearing results in a new service proposal
(Refer to Transportation Committee, if necessary)

Implement Service
- Driver assignments
- Bus stop preparation
- Timetable printing

This item relates to Agenda Item #6
Transportation Committee, 3/4/05
Attachment 1 & Figure 1.1 of Attachment 2