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SAN DIEGO ASSOCIATION OF GOVERNMENTS “KEEP SAN DIEGO MOVING
FORWARD” SALES TAX PROPOSAL FOR NOVEMBER 2016 GENERAL
ELECTION
July 2016

SDCTA Position: SUPPORT

Rationale for Position:

SDCTA supports this expenditure plan as it accounts for all three strategic aspects needed to create public value. Evaluations conducted by the TransNet Independent Taxpayer Oversight Committee (ITOC) reveals that SANDAG is operating effectively and efficiently. SANDAG’s historic ability to leverage state and Federal funds—at nearly three-to-one, manage costs, and complete projects indicate that SANDAG will be successful in executing this measure. SANDAG is capable as an agency to deliver operationally on promises to voters.

Title: San Diego County Road Repair, Transit, Traffic Relief, Safety, and Water Quality Ordinance and Expenditure Plan

Jurisdiction: San Diego Association of Governments, County of San Diego

Type: Special Purpose Sales Tax

Vote: Two-thirds of voters in San Diego County

Status: On the November 8, 2016 General Election Ballot for San Diego County

Issue: Transportation infrastructure and environmental protection

Description: A forty-year half-cent sales tax increment to fund the development of highways, public transit, local roads, and other regional priorities.

Fiscal Impact: The passage of this measure will generate approximately \$18 billion in local revenue for regional and local transportation infrastructure. Furthermore, the \$18 billion can potentially be leveraged to access significant state and Federal funding to invest further in the region.



Introduction and Background

The San Diego Association of Governments (SANDAG) is responsible for all public transit and other transportation planning and programming responsibilities in the region and has proposed the “San Diego County Road Repair, Transit, Traffic Relief, Safety, and Water Quality Ordinance and Expenditure Plan,” a forty-year half-cent sales tax increment—estimated at approximately \$18 billion in aggregate—to fund the development of highways, public transit, local roads, and other regional priorities. Because the proposal is a special tax, it will require approval from at least two-thirds of San Diego County voters to pass in the November 2016 general election.

Though the specific proposal to be approved by the voters is an expenditure plan to fund certain projects, this plan and the projects it proposes to fund are inextricably tied to “San Diego Forward: The Regional Plan” of October 2015 and the latest “Regional Transportation Improvement Plan” (RTIP), the long-term and short-term plans, respectively, for transportation infrastructure. SANDAG updates the Regional Plan every four years and the RTIP every two. SANDAG engaged in extensive public participation to develop the Regional Plan.

This measure is SANDAG’s third sales tax proposal in thirty years to pay for transportation infrastructure. In 1987, the voters passed a twenty-year half-cent sales tax called *TransNet*, and prior to its sunset in 2008, the voters passed the *TransNet* Extension that extended the half-cent sales tax another forty years to 2048. San Diego County residents currently pay one half-cent in sales tax, and this third proposal would increase sales taxes an additional half-cent for a total of one cent. Even with this additional sales tax, residents of San Diego County would still have to approve additional expenditure plans in the future to fully fund the Regional Plan, a plan expected to cost over \$200 billion.

Details of each proposal are below:

TransNet

Year: 1987

Total Cost: ~\$3.3 billion

Tax Increment: 1/2 cent

Taxing Mechanism: Sales tax

Duration: 20 years

Key Expenditure Plan Components: one-third each to freeways, transit, and local roads

Freeways

- Construction of Route 52: \$240 million
- Widen Route 76: \$100 million
- Construction of Route 125: \$135 million
- Widen Route 54: \$65 million

Transit

- Mission Valley Line (Old Town to Stadium): \$150 million
- North Coast Line (N. University City to North City West): \$100 million



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- Mid-Coast Line (Old Town to UTC): \$130 million
- Misc. Transit Improvements (incl: Senior/Disabled/Student Passes, Local Bus services, Dial-a-Ride etc.): \$150 million

TransNet Extension

Year: 2004

Total Cost: \$14 billion

Tax Increment: 1/2 cent

Taxing Mechanism: Sales tax

Duration: 40 years

Key Expenditure Plan Components: 38% to highways, 16.5% to transit, 29.1% to local roads

Freeways

- Expansion of I-15: \$1.4 billion
- Expansion of I-805: \$2.1 billion
- Expansion of I-5 (from the border to I-805): \$1.89 billion
- Expansion of I-5 (from I-805 to Vandergrift): \$1.67 billion

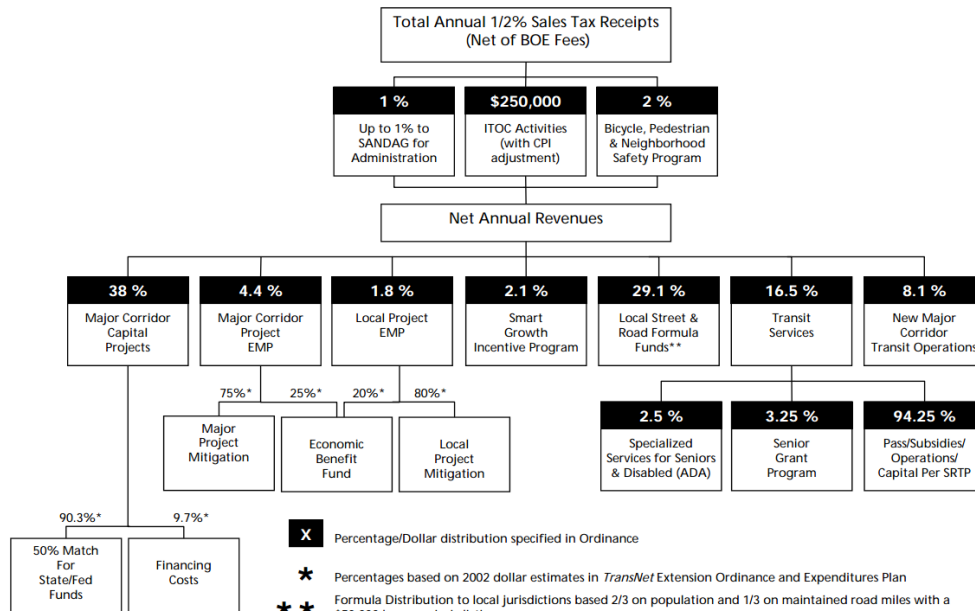
Transit

- Systemwide Trolley Modernization: \$570 million
- Mid-Coast Trolley: \$1.69 billion
- Coastal Rail Double Tracking: \$514 million



Extension

Flow of Funds—FY09 to FY48





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2016 Proposal

Total Cost: \$18 billion

Tax Increment: 1/2 cent (increment above *TransNet* Extension)

Taxing Mechanism: Sales tax

Duration: 40 years

Key Expenditure Plan Components:

Freeways

- SR-78 (HOV/Managed Lanes and Connectors; \$1.2B capital)
- I-5 (HOV/Managed Lanes; \$1.6B capital)
- SR-52 (HOV/Managed Lanes; \$397M capital)
- I-5 managed lanes; \$664M capital
- SR-67 (Widening/Evacuation Route Improvements from Mapleview to Dye Rd; \$649M capital)
- I-8 (Improvements from Second St to Los Coches; \$36M capital)
- SR 94/SR 125 Interchange (Missing Connectors; \$51M capital)

Transit

- Purple Line (San Ysidro to Kearny Mesa; \$4.4B capital, \$304.2M operations)
- COASTER (double tracking and "State of Good Repair" improvements; \$616M capital)
- Sorrento Valley Station (relocation/grade separation; \$247M capital)
- Blue Line (service enhancements; \$350M for both Orange and Blue Line operations)
- Orange Line (service enhancements; \$350M for both Orange and Blue Line operations)
- Rapid 640 (San Ysidro to Downtown, Old Town, and Kearny Mesa; \$95M capital, \$30M operations)
- Rapid 638 (Iris Trolley Station - Otay Mesa; \$10M capital, \$32.9M operations)

Cross-Comparison of SANDAG's Three Proposals Since 1987

Allocation	<i>TransNet</i>	<i>TransNet</i> Extension	2016 Proposal
Highways	33.3%	38%	14.2%
Transit	33.3%	16.5%	41.7%
Local Roads*	33.3%	29.1%	24.0%
Other	0%	16.4%	20.1%

* These funds are allocated to local municipalities for their determinations of use for transit-related projects.

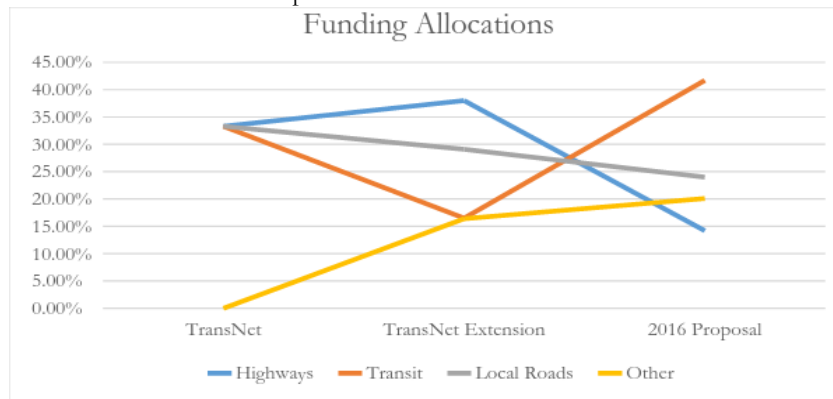


Figure 1: Funding Allocations (Source: SDCTA Analysis)



Historical Positions and Activity of the San Diego County Taxpayers Association

SDCTA supported both the original *TransNet* and the *TransNet* Extension. With the original *TransNet* in 1987, SDCTA saw the necessity for additional funding for regional transportation. SDCTA noted the impact of congestion on commerce and regional quality of life.

Though SDCTA supported the initial *TransNet*, numerous members in subsequent years after its passage questioned *TransNet's* performance in increasing regional mobility, and this concern led directly to the organization's active role in shaping the *TransNet* Extension. SDCTA advocated for a non-arbitrary allocation of funds between the three major modes of transportation, namely highways, transit, and local roads. SDCTA analysis in 2002 also noted a need for independent citizen oversight over the expenditure of funds. SDCTA members and staff noted that congestion and average time spent waiting in traffic worsened while the measure was in effect and that citizens had a limited ability to assess which projects were successful in alleviating congestion and which ones were underperforming. SDCTA viewed this as being partially a result of the arbitrary 1987 decision to split funds evenly between transit, freeways and local control.

Due to the SDCTA's concerns over the performance of the first *TransNet*, SDCTA was proactive in collaborating with SANDAG to improve the proposal to extend it and successfully integrated many of the principles described below. As early as four years before the measure ultimately passed, SDCTA communicated actively with SANDAG staff to discuss these priorities:

SDCTA General Objective and Expenditure Plan Principles

- The *TransNet* Extension must focus on increasing mobility while reducing congestion in our region.
- Funding allocations between the modes (i.e. highways, transit, local streets/roads) shall be based on meeting this goal in a cost effective manner that minimizes impact to the environment, not upon an arbitrary division of funds.
- Funding and project decisions shall be based on quantifiable and measurable performance standards.
- The focus of the Expenditure Plan shall be on completion of the region's transportation system in a manner that accommodates growth while still meeting the above stated objective.
 - Improvement of major regional corridors shall receive priority funding.
 - The Expenditure Plan must maximize the return on investment for current infrastructure including the goal of maximum utilization of the existing transportation system prior to initiating new capital transit projects.
 - New or expanded transit service projects must include the identification of dedicated revenues sufficient to assure sustainable levels of service and ridership.
 - Freeway and highway capacity expansion projects must focus upon maximum throughput for land used, and a balance in mobility with interconnecting local streets and roads.

- Where the Expenditure Plan assumes leveraging of other local, state and federal matching funds, projects shall be initiated consistent with reasonable expected funding experience.

SDCTA was successful in ensuring that the *TransNet* Extension included provisions for independent oversight and integrated rigorous performance metrics.

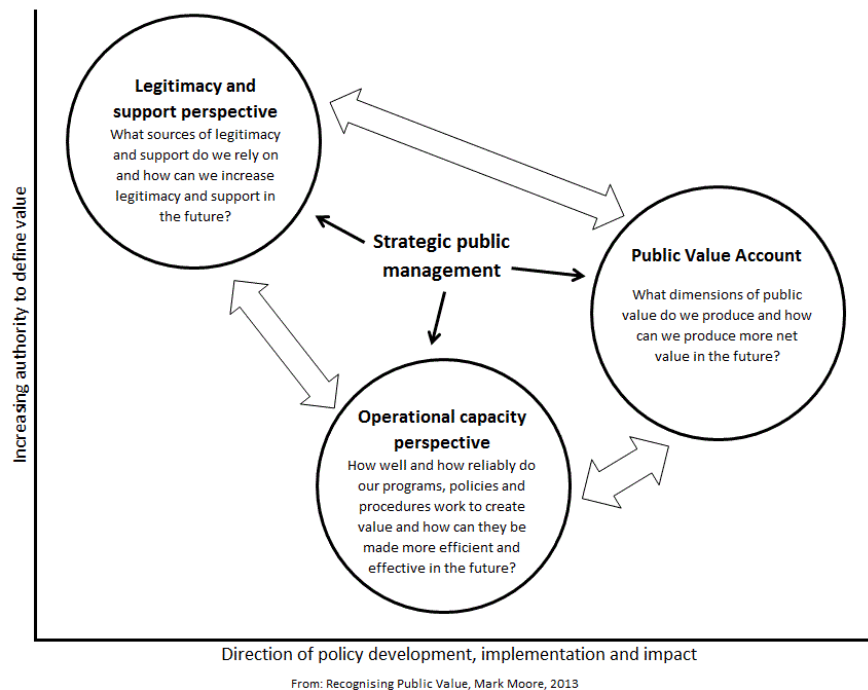
Of note, the latest proposal is SANDAG’s fulfillment of a requirement to propose “a ballot measure and/or other secure funding commitments” to meet long-term requirements for implementing habitat conservation plans in the San Diego region. When voters approved the *TransNet* Extension, they established the Environmental Mitigation Program (EMP) and subsequently funded the early large-scale acquisition and management of habitat lands for future environmental mitigations. SDCTA awarded SANDAG with the Grand Golden Watchdog Award for this program in 2006. Though originally required to propose a funding source for such long-term requirements sooner than 2016, the EMP principles were amended ultimately to allow SANDAG twelve years after the *TransNet* Extension in 2004.

Evaluation Methodology for Latest SANDAG Proposal

The public empowers SANDAG, as an agency of highly professional staff with extensive technical expertise and knowledge overseen by elected representatives from constituent governments, to envision and create public value in the areas of transportation and environmental protection. In general, the public neither gets directly involved in the technical aspects of transportation planning nor does it have direct oversight through recall or referendum actions as constituents might otherwise have in a municipality.

As such and given the immense professional discretion afforded to SANDAG, SDCTA concurs with Mark Moore, Daniel and Florence Guggenheim Professor at the Kennedy School of Government, Harvard University, in that a “useful, conditional conception of public value can be envisioned by public managers if they integrate: (1) substantive judgments of what would be valuable and effective; (2) a diagnosis of political expectations; and (3) hard-headed calculations of what is operationally feasible.”¹ In other words, SDCTA’s evaluates the latest SANDAG expenditure plan against its conceived effectiveness, the legitimacy of the expenditure plan, and whether the agency has the operational capacity to implement such a plan. The figure below from Moore’s latest research demonstrates graphically what SANDAG must manage appropriately to demonstrate effective public management.

¹ *Creating Public Value*, 22.



Though framed differently, this evaluation methodology is very similar to the general principles used to guide SDCTA's advocacy and ultimate support for the 2004 *TransNet* Extension. Indeed, SDCTA's earlier principles map very neatly to this conception of public value. For instance:

- The concerns of arbitrariness relate to effectiveness of the value created.
- The need to increase mobility while protecting the environment and accounting for growth relate to legitimacy from the voters.
- The leveraging of other Federal or State funds relate to operational capacities to deliver on the promises made to voters.

This is to say that SDCTA's principles from 2004 endure in the evaluation of SANDAG's latest proposal and simply be made through the evaluation analysis more salient for current circumstances to account for the latest literature and best practices in transportation.

Evaluation of SANDAG Proposal

Value and Effectiveness

Just as in 2004, SDCTA advocates that funding and project decisions be based on quantifiable and measurable performance standards, and with the exception of measurements on the efficacy of local roads, SANDAG has generally utilized quantifiable and measurable performance standards in the evaluation of project decisions.

Appendices M² and N³ of the Regional Plan delineate very specific criteria for the evaluation of potential projects and their subsequent performance. Evaluation criteria include items from congestion relief, as predicted through the anticipated change in daily person-hours saved, to regional accessibility, as predicted by the anticipated number of jobs and schools accessible within 30 minutes by automobile. Performance criteria validate these evaluation criteria and are closely related.

Project Evaluation Criteria - Highway Corridors

San Diego Forward: The Regional Plan Goals	No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning	1	Provides Congestion Relief	A) What is the number of daily person-hours saved from implementing the project?*	Change in daily person-hours saved	10		Mobility Choices
	2	Pro					
	3	Pro					
San Diego Forward: The Regional Plan Performance Measures⁴							
			Goals	Policy Objectives	Key Questions	Draft Performance Measure	
Innovative Mobility and Planning	4	Fac Ped	Innovative Mobility and Planning	Mobility Choices	1. Are travel times reduced?	1A. Average peak-period travel time to work (drive alone, carpool, transit, bike, and walk) (Communities of Concern and Non-Communities of Concern)	
					2. Are more people walking, biking, using transit and sharing rides?	1B. Daily vehicle delay per capita (minutes)	
					3. Is the transportation system safer?	2A. Increase in walk, bike, transit, and carpool mode share 3A. Annual projected number of vehicle (driver/passenger) injury/fatal collisions per vehicle miles traveled (VMT) 3B. Annual projected number of bicycle/pedestrian injury/fatal collisions per bicyclist/pedestrian miles traveled (BPMT)	
Healthy Environment & Communities	6	Mir Imp	Vibrant Economy	Regional Economic Prosperity, Partnerships and Collaboration	4. Do the transportation investments help to improve the regional economy?†	4A. Benefit/Cost Ratio of transportation investments	
					5. Are the relative costs of transportation changing similarly for all communities?	4B. Average truck/commercial vehicle travel times to and around regional gateways and distribution hubs (minutes)	
					6. Are connections to neighboring counties, Mexico, tribal lands, and military bases/installations improved?	5A. Change in percent of income consumed by transportation costs (communities of Concern and Non-Communities of Concern)	
Vibrant Economy	10	Acc	Healthy Environment and Communities	Complete Communities, Habitat and Open Space Preservation, Environmental Stewardship	7. Does the transportation network support smart growth?	6A. Average travel times to/from tribal lands (minutes) 6B. Average travel times to/from Mexico (minutes) 6C. Average travel times to/from neighboring counties (Imperial, Orange, Riverside) (minutes) 6D. Average travel times to/from military bases/installations (minutes)	
					8. Is access to jobs and key destinations improving for all communities?	7A. Percentage of population/employment within 0.5 miles of high frequency (<=15 min peak and midday) transit stops (Communities of Concern and Non-Communities of Concern) 7B. Percentage of population/employment within 0.5 miles of a transit stop (Communities of Concern and Non-Communities of Concern) 7C. Percentage of population/employment within 0.25 miles of a bike facility (class I and II, cycletrack, and bicycle boulevard) (Communities of Concern and Non-Communities of Concern) 7D. Average travel distance to work (drive alone, carpool, transit, bike, and walk) (miles) 7E. Total time engaged in transportation-related physical activity per capita (minutes) 7F. Percent of population engaging in more than 20 minutes of daily transportation related physical activity	
					9. Is the region's air quality improving?	8A. Percent of population within 30 minutes of jobs and higher education (Communities of Concern and Non-Communities of Concern) 8B. Percent of population within 15 minutes of goods and services (retail, medical, parks and beaches) (Communities of Concern and Non-Communities of Concern)	
					10. Are GHG emissions reduced?	9A. On-road smog-forming pollutants (pounds/day) per capita 10A. On-road CO ₂ emissions (pounds/day) per capita and regionwide	

*Note: Provides dual evaluation for both passenger and driver.

⁴ Work on the Performance Measures is being funded in part through a grant awarded by the Strategic Growth Council. The statements and conclusions resulting from these efforts are not necessarily those of the Strategic Growth Council or of the Department of Conservation, or its employees. The Strategic Growth Council and the Department make no warranties, express or implied, and assume no liability for the statements or the information contained in the work products.

March 28, 2014

The one area, however, where evaluation and performance measurement is weak is in the area of funding for local roads. The *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit of June 2015 notes that “Local Street and Road Program performance...*still* cannot be assessed [emphasis added].” This critique has persisted since the 2011 independent audit, and an expenditure of \$378 million on local roads from the *TransNet* Extension remains unmeasured in terms of performance.⁴

Additionally, the new proposals maintenance of effort determinations are impacting performance of local roads expenditure. Similar to the *TransNet* Extension, this new

² http://www.sdforward.com/pdfs/RP_final/AppendixM-TransportationProjectEvaluationCriteriaandRankings.pdf

³ http://www.sdforward.com/pdfs/RP_final/AppendixN-EvaluatingthePerformanceoftheTransportationNetwork.pdf

⁴ *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit, June 2015, 32-33.



expenditure plan requires that local municipalities obligate funds to maintenance and that local revenues must be augmented, not supplanted, by SANDAG funds. This requirement is sound in principle, though the practical calculations specified in the expenditure plan can potentially be insufficient. The expenditure plan considers an average historical expenditure over Fiscal Years 2013-14 through 2015-16 as adequate maintenance of effort, yet recent experience in the City of San Diego and popular support for Proposition H in the June 2016 primary election would seem to reflect that the majority of the public—at least in the City of San Diego—believes that historical expenditure is inadequate. Regardless of popular sentiment, however, the *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit of June 2015 highlights deteriorating local streets and insufficient maintenance by local municipalities, so a historical figure as an evaluative measure could be inappropriate and potentially improved.

County	Center Line Miles	Lane Miles	Area (square yards)	Average PCI			
				2008	2010	2012	2014
San Diego	7,814	18,596	170,696,012	74	69	67	66
Riverside	7,561	16,835	149,403,177	71	72	70	70
Orange	6,601	16,808	150,276,239	78	76	77	77

Source: California Local Streets & Roads Needs Assessment 2014

* Taken from ITOC Triennial Performance Audit

The new expenditure plan dedicates 24% of the sales tax increment, estimated to be \$4.3 billion, to local infrastructure projects, and the proposal may not adequately incentivize the quantifiable performance metrics that SDCTA considers essential. After aggregating the additional 30% maintenance of effort expenditures municipalities, there is some risk that \$6 billion can be spent without evaluative or performative measures.

Operational Capacity of SANDAG

In general, SANDAG has done well maintaining the capacity to deliver on previous promises made to the voters. The *TransNet* Extension has been largely successful in completing the projects included in its expenditure plan. After the economy entered a recession in 2008, SANDAG took advantage of low interest rates to borrow more money than expected and to finish projects earlier than expected. As a result, SANDAG is reaching bonding capacity sooner than originally anticipated. Additionally, the *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit of June 2015 assesses that “SANDAG and its regional partners are operating a well-run *TransNet* program that encompasses many best and leading practices related to program development and delivery, environmental mitigation, cost and schedule control, contracting and construction, and general management and oversight.”⁵

⁵ *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit, June 2015, 1.



Additionally, SANDAG has been successful leveraging other funds towards transportation infrastructure projects. The San Diego Regional Economic Development Corporation recently completed in May 2016 a study of the impact of *TransNet* sales tax revenue. Approximately \$3.3 billion in local revenue has been matched with approximately \$10 billion from other funding sources.⁶ That three-to-one leveraging shows SANDAG can maintain and indeed grow its operational capacity to deliver public value.

Though there is the potential of \$6 billion of ineffective taxpayer expenditure for local roads, it is not likely that all \$6 billion would go to ineffective projects by municipalities, and on balance with SANDAG's operational capacity and its ability to leverage other funding sources, the expenditure plan has significant positive potential for the San Diego region.

Legitimacy from the Voters

Due to the SDCTA's involvement with the *TransNet* Extension, safeguards were put into place requiring a triennial performance audit of the program through its sunset in 2048. Objectives of the audit include evaluating implementation of prior audit recommendations, assessing organizational structure and process, determining the efficiency and effectiveness of project delivery practices including contracting and controls, and reviewing ITOC activities and adherence to its bylaws.⁷

Audits performed under the cognizance of the ITOC demonstrate that SANDAG and its regional partners are operating a well-run *TransNet* program that encompasses many best and leading practices related to program development and delivery, environmental mitigation, cost and schedule control, contracting and construction, and general management and oversight.

These independent audits demonstrate institutional legitimacy for the voters by establishing accountability for the program's implementation.

Overall Evaluation

SDCTA supports this expenditure plan, combined with the associated Regional Plan, as it accounts for all three strategic aspects needed to create public value. Evaluations conducted by the *TransNet* Independent Taxpayer Oversight Committee reveals that SANDAG is operating effectively and efficiently. SANDAG's historic ability to leverage state and Federal funds—at nearly three-to-one, manage costs, and complete projects indicate that SANDAG will be successful in executing this measure. SANDAG is capable as an agency to deliver operationally on promises to voters.

⁶ San Diego Regional Economic Development Corporation, May 2016, 5.

⁷ *TransNet* Independent Taxpayer Oversight Committee Triennial Performance Audit, June 2015, 1.



Recommendations

SDCTA recognizes that policy leadership of this scale is challenging and that no measure will be perfect, and SDCTA offers these improvements while standing ready to work with SANDAG closely as it has in the past for a future expenditure plan to accommodate the transportation needs of the growing San Diego region.

1. Funding for local investment should not occur if a local government has failed to demonstrate good faith effort to address their infrastructure shortfalls through performative measurements and a quantifiable measurement of need. Maintenance of effort should be measured not by average historical expenditures, but instead by engineering metrics such as a Pavement Condition Index. This would address the value and effectiveness weakness identified in the evaluation.
2. Future expenditure plans should explicitly invest in big data, predictive analytics, and other pilots for transportation planning, especially when there are Federal grant monies for such innovations, and allow for dynamic adjustments to expenditures based on improved and more detailed measurement.

Proponents:

- San Diego County Supervisor Ron Roberts
- Chula Vista Mayor Mary Salas
- National City Mayor Ron Morrison
- Imperial Beach Mayor Serge Medina
- San Diego City Councilmember Todd Gloria
- San Diego Regional Economic Development Corporation
- Circulate San Diego
- Association of General Contractors
- San Diego Regional Traffic Engineers Council

Proponent Arguments: Regional infrastructure needs investment, and SANDAG is also able to bring non-local monies to bear. Public participation created the long-term plans, and while imperfect, the proposal moves the region forward.

Opponents:

- San Diego Mayor Kevin Faulconer
- El Cajon Mayor Bill Wells
- Poway Mayor Steve Vaus
- La Mesa City Council
- San Diego City Council President Sherri Lightner
- San Diego City Councilmember Chris Cate
- San Diego County Republican Party
- “Quality of Life” Coalition



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Opponent Arguments: Environmental and labor groups argue the plan is inadequate in protecting the environment, job creation, and social justice.

Sources Consulted

- “Advanced Analytics and Machine Learning | Office of the Assistant Secretary for Research and Technology,” n.d. http://www.rita.dot.gov/publications/technology_scan/advanced_analytics.
- “Awards – SFpark.” Accessed June 9, 2016. <http://sfpark.org/about-the-project/awards/>.
- “City of San Diego TransNet Budget Section FY 2013.” Accessed June 10, 2016. <https://www.sandiego.gov/sites/default/files/legacy/fm/annual/pdf/fy13/vol2/v2transnet.pdf>.
- “Connected Citizens Program - Waze,” n.d. https://wiki.waze.com/wiki/Connected_Citizens_Program#Existing_Partners.
- “Data-Smart City Solutions.” *Data-Smart City Solutions*. Accessed June 9, 2016. <http://datasmart.ash.harvard.edu/>.
- “IBM - Smarter Cities Solutions for Intelligent Transportation - United States,” September 25, 2012. http://www.ibm.com/smarterplanet/us/en/smarter_cities/infrastructure_solutions/index_C.html.
- “Mobility Is a Crucial City Challenge.” *SmartisCity*, June 9, 2015. <http://en.smartiscity.eu/mobility-is-a-crucial-city-challenge/>.
- “SANDAG: An Assessment of Its Role in the San Diego Region,” March 2016. California Legislature Analyst’s Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.htm#intro.
- “SDCTA TransNet Extension Support Position Paper.” *Google Docs*. Accessed June 10, 2016. https://docs.google.com/a/sdcta.org/document/d/1WPQyKz0_AHYVn_2EAuc7W6Jzlh1RlcZhFvF0ywXdl0c/edit?usp=sharing.
- “The Four Biggest Myths about Induced Demand | Planning, Urban Development, Transportation.” *Urbanist.co* | *Planning, Urban Development, Transportation*, July 7, 2014. <http://urbanist.co/busting-four-biggest-myths-induced-demand/>.
- “TransNet Extension & Ordinance Ballot Language and Expenditure Plan.” Accessed June 10, 2016. http://www.sandag.org/uploads/publicationid/publicationid_1283_6596.pdf.
- “TransNet Story Map.” Accessed June 10, 2016. <http://transnetmap.sandag.org>.
- “Transportation Infrastructure: Evaluating the Economic Impact of TransNet on San Diego’s Economy.” San Diego Regional Economic Development Corporation, May 5, 2016. <http://www.sandiegobusiness.org/taxonomy/term/480/0>.
- “TRAVIC - Transit Visualization Client.” Accessed June 9, 2016. <http://tracker.geops.ch/?z=14&s=1&x=-13038897.8851&y=3858493.0667&l=transport>.
- “TS1-2-TheRoleofBigDataandAnalytics.pdf.” Accessed June 9, 2016. <http://www.itscalifornia.org/Content/AnnualMeetings/2015/Presentations/TS1-2-TheRoleofBigDataandAnalytics.pdf>.
- “Urban Insights Launches Big Data and Predictive Analytics Consulting Practice for the Transportation Industry > Urban Insights.” Accessed June 9, 2016. <http://urban-insights.com/News/ID/26/Urban-Insights-Launches-Big-Data-and-Predictive-Analytics-Consulting-Practice-for-the-Transportation-Industry>.
- “Use TransNet Funds to Build More Freeways | The San Diego Union-Tribune.” Accessed June 10, 2016. http://www.sandiegouniontribune.com/uniontrib/20040427/news_1e27slater1.html.
- “What’s Up With That: Building Bigger Roads Actually Makes Traffic Worse | WIRED.” Accessed June 10, 2016. <http://www.wired.com/2014/06/wuwt-traffic-induced-demand/>.
- “White Paper: Anatomy of Ballot Measure – Analysis of the Transit Elements in SANDAG’s Proposed 2016 Ballot Measure Expenditure Plans.” *Circulate San Diego*. Accessed June 10, 2016. <http://www.circulatesd.org/anatomyofaballotmeasure>.
- Badger, Emily. “You Already Own the Next Most Important Transportation Planning Tool - CityLab,” February 3, 2012. <http://www.citylab.com/tech/2012/02/you-already-own-next-most-important-transportation-planning-tool/1124/>.
- Chieppo, Charles. “Is Columbus the Future of Urban Transportation?” *Data-Smart City Solutions*, July 6, 2016. <http://datasmart.ash.harvard.edu/news/article/is-columbus-the-future-of-urban-transportation-864>.

- Gilman, Hollie Russon. *Democracy Reinvented: Participatory Budgeting and Civic Innovation in America*. 1 edition. Washington, D.C: Brookings Institution Press/Ash Center, 2016.
- Goldsmith, Stephen. "L.A.'s Testing Ground for Transportation Efficiency," March 16, 2016. <http://www.governing.com/blogs/bfc/gov-los-angeles-transportation-efficiency-mobility-management.html>.
- . "Open Data's Road to Better Transit." *Data-Smart City Solutions*, September 23, 2013. <http://datasmart.ash.harvard.edu/news/article/open-datas-road-to-better-transit-304>.
- . "The Next Generation of Public Employees Must Understand Data and Policy." *Data-Smart City Solutions*, July 5, 2016. <http://datasmart.ash.harvard.edu/news/article/the-next-generation-of-public-employees-must-understand-data-and-policy-863>.
- Hecht, Ben. "From Transit to Access." *Data-Smart City Solutions*, May 28, 2014. <http://datasmart.ash.harvard.edu/news/article/from-transit-to-access-464>.
- Henschen, Doug. "San Diego Taps Big Data To Optimize Transit." *InformationWeek*, July 10, 2014. <http://www.informationweek.com/big-data/big-data-analytics/san-diego-taps-big-data-to-optimize-transit/d/d-id/1297178>.
- Heifetz, Ronald A., Marty Linsky, and Alexander Grashow. *The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World*. 1 edition. Boston, Mass: Harvard Business Press, 2009.
- Keatts, Andrew. "San Diego's Growth Projections Are Consistently Off," May 21, 2015. <http://www.voiceofsandiego.org/topics/land-use/sandag-isnt-good-at-predicting-population-growth/>.
- . "The Line Between Education and Advocacy on SANDAG's Tax Proposal - Voice of San Diego," June 22, 2016. <http://www.voiceofsandiego.org/must-reads/the-line-between-education-and-advocacy-on-sandags-tax-proposal/>.
- Lee, Douglass. "Induced Traffic and Induced Demand." *Concepts of Induced Demand*. Accessed June 10, 2016. http://www.worldbank.org/transport/roads/rpl_docs/apbinduc.pdf.
- Litman, Todd. "Generated Traffic and Induced Demand: Implications for Transport Planning." *ITE Journal* 71, no. 4 (April 2001): 38–47.
- San Diego Association of Governments. Manager of Regional Models. Telephone, July 7, 2016.
- Mehndiratta, Shomik. "Big Data Comes to Transport Planning: How Your Mobile Phone Helps Plan That Rail Line." Text. *Transport for Development*, December 30, 2014. <http://blogs.worldbank.org/transport/big-data-comes-transport-planning-how-your-mobile-phone-helps-plan-rail-line>.
- Moore, Mark H. *Creating Public Value: Strategic Management in Government*. Revised ed. edition. Harvard University Press, 1995.
- Newcombe, Tod. "Intelligent Transit: Data Improves Transit Efficiency." Accessed June 9, 2016. <http://www.govtech.com/dc/articles/Intelligent-Transit-Data-Improves-Transit-Efficiency.html>.
- Onita, Laura. "Big Data to Change Urban Mobility Habits across the Globe - E & T Magazine." *Engineering And Technology Magazine*, May 19, 2015. <http://eandt.theiet.org/news/2015/may/transport-predictive-analytics.cfm>.
- Randal O'Toole. "Debunking the Induced-Demand Myth." *Cato Institute*, June 18, 2014. <http://www.cato.org/blog/debunking-induced-demand-myth>.
- TIBCO Staff. "Using Predictive Analytics to Improve Public Transportation." Analytics. *The TIBCO Blog*, September 9, 2015. <http://tibco.cm/1SXEzw5>.
- Widhalm, Peter, Yingxiang Yang, Michael Ulm, Shounak Athavale, and Marta C. González. "Discovering Urban Activity Patterns in Cell Phone Data." *Transportation* 42, no. 4 (July 2015): 597–623. doi:10.1007/s11116-015-9598-x.
- Wood, Colin. "Data Makes Dubuque, Iowa Smart and Sustainable," May 20, 2013. <http://www.govtech.com/Data-Makes-Dubuque-Iowa-Smart-and-Sustainable.html>.