

Riverside County Strategic Assessment

Riverside County Transportation Commission
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EXECUTIVE SUMMARY



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Executive Summary

ES.1. Introduction

In November 2002, Riverside County voters approved Measure A, a 30-year extension of the countywide ½-percent sales tax originally passed in 1988 to fund transportation improvements in Riverside County. Both measures authorized the Commission to administer the tax according to the expenditure plans delineated on their respective ballots. The current Measure A ("2009 Measure A"), which expires in June 2039, requires the Commission to review and update the expenditure plan in 2019 and every ten years thereafter.

Four years later in December 2006, the Commission adopted a 10-Year Delivery Plan of high-priority projects included in the Western Riverside County Measure A expenditure plan, including the first tolled express lanes in Riverside County. Subsequently the Commission received legislative approval to implement two projects that included tolled express lanes. A vast majority of projects in the 10-Year Delivery Plan will be open to the public by 2020, including tolled express lanes on State Route 91 and Interstate 15 and the Perris Valley Line Metrolink Extension. Therefore, the Commission's relationship to the public is in the midst of significant transition in terms of construction and operations of permanent revenue-generating facilities.

External factors are also shaping the Commission's activities. Since the renewal of Measure A and adoption of the 10-Year Delivery Plan, the Riverside County economy has experienced dramatic swings. Revenue forecasts for Measure A have been adjusted several times, causing project scopes to be modified. The Commission has also had to respond to changing policies at the state and federal level that emphasize greenhouse gas (GHG) reduction, active transportation, and public transit.

At its 2015 annual workshop the Commission directed staff to conduct a strategic assessment to assist the Commission in re-examining the County's needs for transportation investments in the context of: (1) the Measure A expenditure plan and other local transportation-related policies, (2) changing economic and demographic trends in Riverside County, (3) evolving state and federal transportation policies, (4) revenue realities, and (5) desires of the public and stakeholders. The objective of the strategic assessment is to produce findings and provide strategic recommendations on actions the Commission can take to proactively prepare for the County's future.

The next section of this Executive Summary presents the strategic actions recommended for the Commission to take based on the study's analysis and findings. The technical analyses that provide the basis for the recommendations are summarized in the sections following the Recommended Strategy, and include Existing and Future Conditions, Current Plans and Policies, Funding Analysis, Public and Stakeholder Attitudes, and Partner Agency Coordination. The detailed documentation of these analyses is provided in the appendices to this Executive Summary.

ES.2. Recommended Strategy

The recommended strategic actions are based on the technical analyses and findings presented in sections below, and have been grouped into four categories: Plan for the Future, Maximize Our Assets, Increase Funding, and Communicate More.

Plan for the Future

- Develop a long-range transportation plan (LRTP) for Riverside County that provides a vision of the County's future integrated transportation system and a coordinated strategy for agencies to work toward a common vision for meeting mobility needs and contributing to a sustainable transportation system. The LRTP will include:

- Develop principles for development and land use planning that is supportive of an integrated and efficient transportation system for Riverside County;
 - Develop plans for rail and transit facilities to serve employment centers in Riverside County;
 - Develop plans for rail and transit services to serve the essential mobility needs of transit-dependent people including seniors and veterans in Riverside County and provide a viable alternative to driving in the more highly urbanized parts of the County.
 - Develop plans for express lane and other toll facilities to promote driver choice, promote express bus and carpool benefits, provide a means to fund future transportation projects, and increase mobility in Riverside County.
 - Plan for highway and regional arterial roadway facilities to maintain acceptable levels of vehicular mobility in Riverside County, including a re-evaluation of CETAP corridors; and
 - Develop plans and strategies for active transportation facilities to enable greater levels of trip-making by bicycle, on foot, and low-speed electric vehicles.
- Evaluate new and existing corridors to assess feasibility of tolling the entire facility or adding tolled express lanes to determine the next tolling projects in Riverside County. Findings will be incorporated into the LRTP.
 - Continue assuming the leadership role in the development of Riverside County's rail network:
 - Conduct a next-generation rail feasibility study to determine the next rail projects in Riverside County, including an analysis of alternative rail service and project delivery models, with a focus on intra-county travel;
 - Adopt as policy that the Commission will be the lead agency in all fixed guideway projects seeking state or federal discretionary grants.
 - Commence development of the 2019-2029 Measure A Western County Highway Delivery Plan, prioritizing projects deferred from the current delivery plan, specifically:
 - I-15 Express Lanes from Cajalco Road to SR-74 (toll)
 - SR-71/SR-91 Interchange
 - SR-91/I-15 Northbound Express Lane Connector (toll)
 - Continued progress and evaluation of CETAP and alternative corridors.

Maximize Our Assets

- Optimize existing funding sources by:
 1. Prepare the 2019 review and update of the Measure A Expenditure Plan as required by the Measure.
 2. Integrating RCTC services, programs and projects across modes and departments to maximize mobility benefit for as many people as possible.
 3. Developing a countywide coordinated strategy to leverage existing revenue streams to capture additional discretionary and competitive state and federal revenues.
 4. Reviewing and updating the Commission's funding allocation policies (including the bus-rail funding split and Measure A program allocations) to better align and balance current and future needs.
 5. Supporting continuation of the WRCOG and CVAG TUMF programs and periodic policy reviews and updates of fee levels based on nexus study findings.
- Initiate a comprehensive prioritization and phasing assessment of planned and potential transportation improvement projects to determine:

1. Approximate timing/phasing of improvements and the corresponding flow of revenue streams needed to implement them;
 2. If/how some major projects can be phased or scaled down to reduce or defer funding needs;
 3. If/how some major projects may be vulnerable to emerging state and federal policy changes;
 4. Locations where bottleneck improvements can provide congestion relief without needing to improve an entire corridor; and
 5. Improvements or services that can be deferred, replaced, modified, or eliminated because of emerging or expected technological innovations.
- Coordinate with local agencies and rail and transit providers to effectuate development of viable transit-oriented development around rail and transit stations in Riverside County.
 - Coordinate with local agencies to promote development and expansion of employment centers supported by multi-modal transportation.
 - Support CEQA/NEPA reform to reduce the cost and time required to prepare project environmental documents.
 - Enhance the Commuter Assistance Program and Freeway Service Patrol.
 - Enhance the service levels and accessibility of transit service for low-income and transit-dependent communities.
 - Expand the use of technology to make Riverside County's transportation system more "user friendly" and to enhance awareness of transportation programs managed by RCTC and provided as a result of Measure A.

Increase Funding

- Encourage state and federal efforts to increase transportation funding through sources that will provide Riverside County with a fair share.
- Prepare to submit an additional local sales tax measure to voters in 2018 or 2020.
- Consider a truck impact mitigation fee and/or a development impact mitigation fee for highways.
- Collaborate with transit service providers and other programming agencies to explore options for a dependable, sustainable, ongoing revenue source adequate to support operations and maintenance costs of desired future rail and transit expansions.
- Consider how future surplus toll revenues may be used to improve transportation within the corridor in which they were generated.

Communicate More

- Develop an ongoing public education and involvement program to educate the public about Riverside County transportation and RCTC to develop a greater public awareness of:
 - Who RCTC is and the services we offer;
 - What RCTC has accomplished;
 - How Measure A works and the benefits to Riverside County residents and businesses;
 - Current ongoing Measure A projects; and
 - Future needs.
- Enhance existing stakeholder and community engagement processes to ensure that RCTC remains closely in touch with users of the transportation system in Riverside County.
- Develop outreach and feedback mechanisms for dealing with RCTC's new "customers", the users of the express lanes.

ES.3. Existing and Future Transportation Conditions

Demographics

From a current population of almost 2.5 million, Riverside County is projected to grow by 41% by the Year 2040, with the largest numerical growth expected in Western Riverside County and the higher growth rates expected in the desert areas (see **Table ES.1**). Employment is expected to grow faster than population, with an overall growth of 87%.

Table ES.1: Riverside County Population and Employment

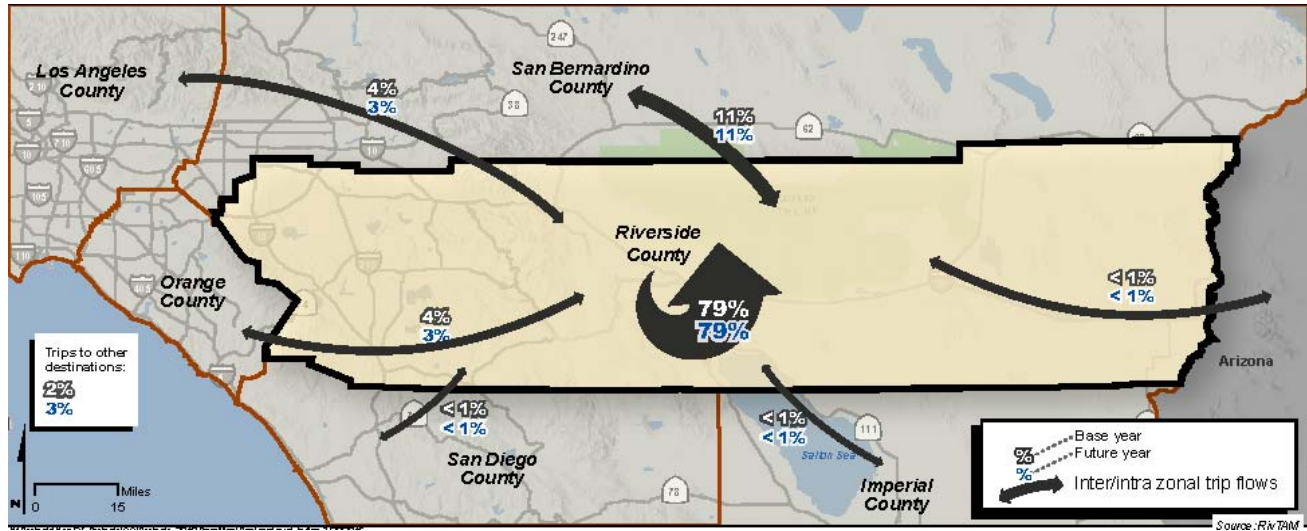
Population	2012 Population	2040 Population	Absolute Difference (2012-2040)	Pct. Difference (2012-2040)
Coachella Valley	431, 206	697,744	266,538	62%
Palo Verde Valley	25,783	43,473	17,690	69%
Western Riverside County	1,787,928	2,430,010	642,310	36%
Total Riverside Co.	2,444,917	3,171,227	926,310	41%
Employment	2012 Employment	2040 Employment	Absolute Difference (2012-2040)	Pct. Difference (2012-2040)
Coachella Valley	148,174	294,174	146,000	99%
Palo Verde Valley	5,080	10,763	5,683	112%
Western Riverside County	463,433	848,829	385,396	83%
Total Riverside Co.	616,687	1,153,766	537,079	87%

Riverside County's forecast growth percentages are the highest of all the urbanized counties in the SCAG region, and in terms of absolute growth in population and jobs Riverside County is second only to Los Angeles County (see **Table ES.2**). Riverside County has the lowest jobs/housing ratio of all the SCAG region counties, and that is expected to continue in the future despite the rapid growth of jobs projected for Riverside County. As a result, many Riverside County residents will commute to other counties for their employment and other trip purposes. As illustrated in **Figure ES.1** the majority of the inter-county trips are to/from San Bernardino County, with trips to/from Orange and Los Angeles Counties comprising most of the rest.

Table ES.2: Demographic Comparisons within SCAG Region

County	2012 Population	2040 Population	Pop % Difference	2012 Employment	2040 Employment	Emp % Difference	2012 Jobs to Households	2040 Jobs to Households
Los Angeles	9,922,731	11,517,461	16%	4,235,143	5,213,136	23%	1.30	1.32
Orange	3,071,544	3,464,493	13%	1,526,227	1,898,685	24%	1.53	1.65
Riverside	2,244,917	3,171,227	41%	616,687	1,153,770	87%	0.89	1.10
San Bernardino	2,067,978	2,725,029	32%	659,463	1,028,205	56%	1.07	1.20
Ventura	835,432	962,806	15%	332,250	420,211	26%	1.23	1.35
Total SCAG Region	18,322,197	22,123,389	21%	7,428,836	9,838,616	32%	1.26	1.33

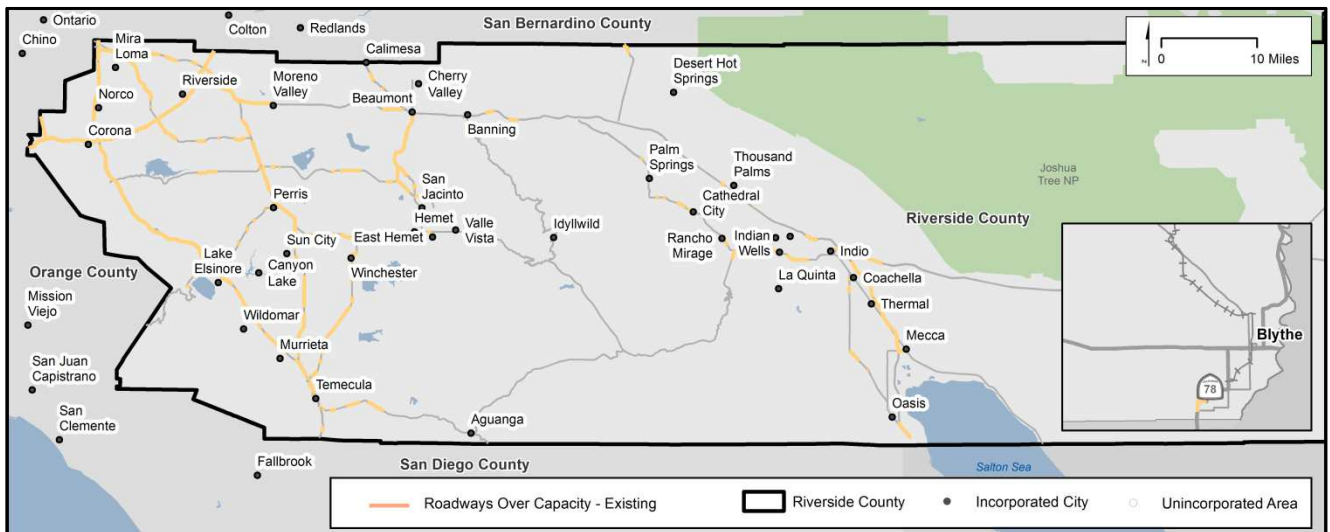
Figure ES.1: Existing and Future (2040) County Travel Patterns



Roadway Facilities

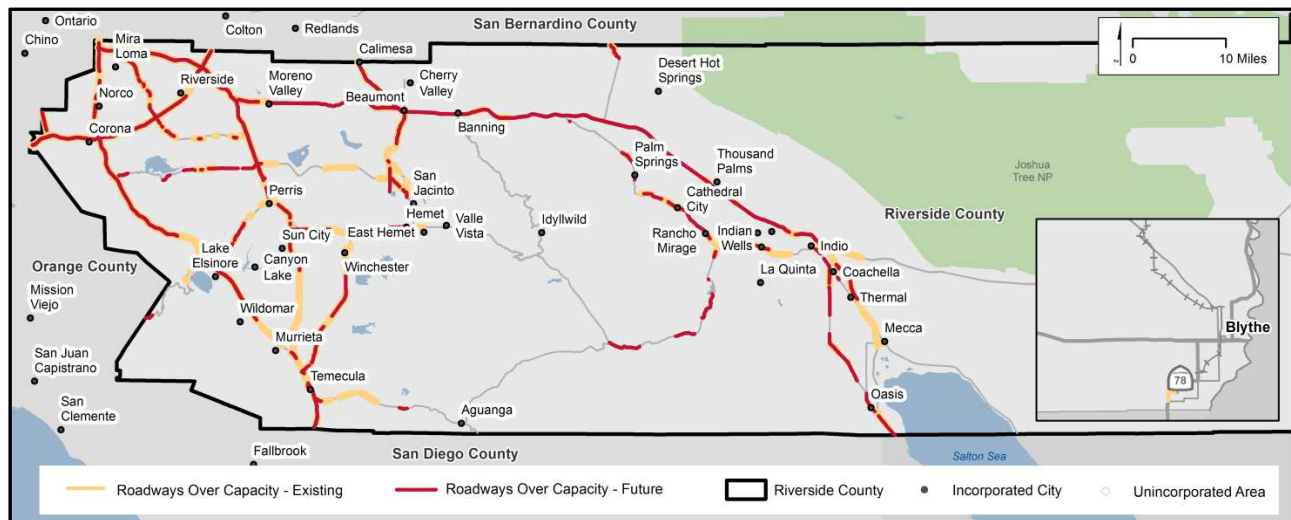
Travel demand is projected to increase consistently with the forecast population and employment growth, and would result in increased congestion on the County's major roadway facilities (see **Figures ES.2 and ES.3**). The substantial increase in the extent of traffic congestion indicates that, despite the highway projects currently under construction and in the pipeline, the large amount of regional population growth will put substantial additional strains on the highway system.

Figure ES.2: Existing Congested Locations on Riverside County's Major Roadway Facilities



Source: RivTAM Base Year Model

Figure ES.3: Future (2040) Congested Locations on Riverside County's Major Roadway Facilities



Source: RivTAM Future Year Model

Rail and Transit

Metrolink service currently operates on three routes to Los Angeles and Orange County, and the terminus of the 91 Line service (Los Angeles to Riverside) will soon be extended from downtown Riverside to Perris along the Perris Valley Line (PVL) (see **Figure ES.4**). Extensions of PVL have been proposed from Perris to San Jacinto and from Perris to Temecula, and rail service has also been studied along the I-15 corridor from Corona to Temecula. The two existing Amtrak services are long-distance trains that operate from Los Angeles to New Orleans (three times per week) and from Los Angeles to Chicago (daily). A study is currently underway of a potential new Amtrak service from Los Angeles to the Coachella Valley with initially two round trips per day.

Figure ES.4: Existing and Proposed Rail Services



Source: Caltrans, SunLine Transit Agency, Riverside County

Bus transit service areas are illustrated in **Figure ES.5**. In addition to the fixed-route and demand-responsive services illustrated on the map the City of Riverside operates its Special Transit for senior citizens and riders with disabilities.

Where these rail lines cross streets at grade, traffic is delayed while each train crosses, and the combination of the number of trains and their length means that the crossing gates are down a total of between one and two hours each day at each street crossed by the BNSF and UP rail lines. For the past decade RCTC has made railroad grade crossings one of its high priorities for transportation improvements, and as a result funding has been obtained to construct 14 grade separations (overpasses or underpasses), and to close two low-traffic crossings. (**Figure ES.6** shows the 14 grade separation locations in green or yellow, and the closed locations in black.) With continuing growth in freight train traffic many of the remaining at-grade intersections are projected to experience high levels of delay, and RCTC has established a list of 19 crossings with the highest priority for improvement. However, the state and federal funding sources that were used to fund the completed grade separations are no longer available, so additional progress in this direction must await the availability of a new source of funding.

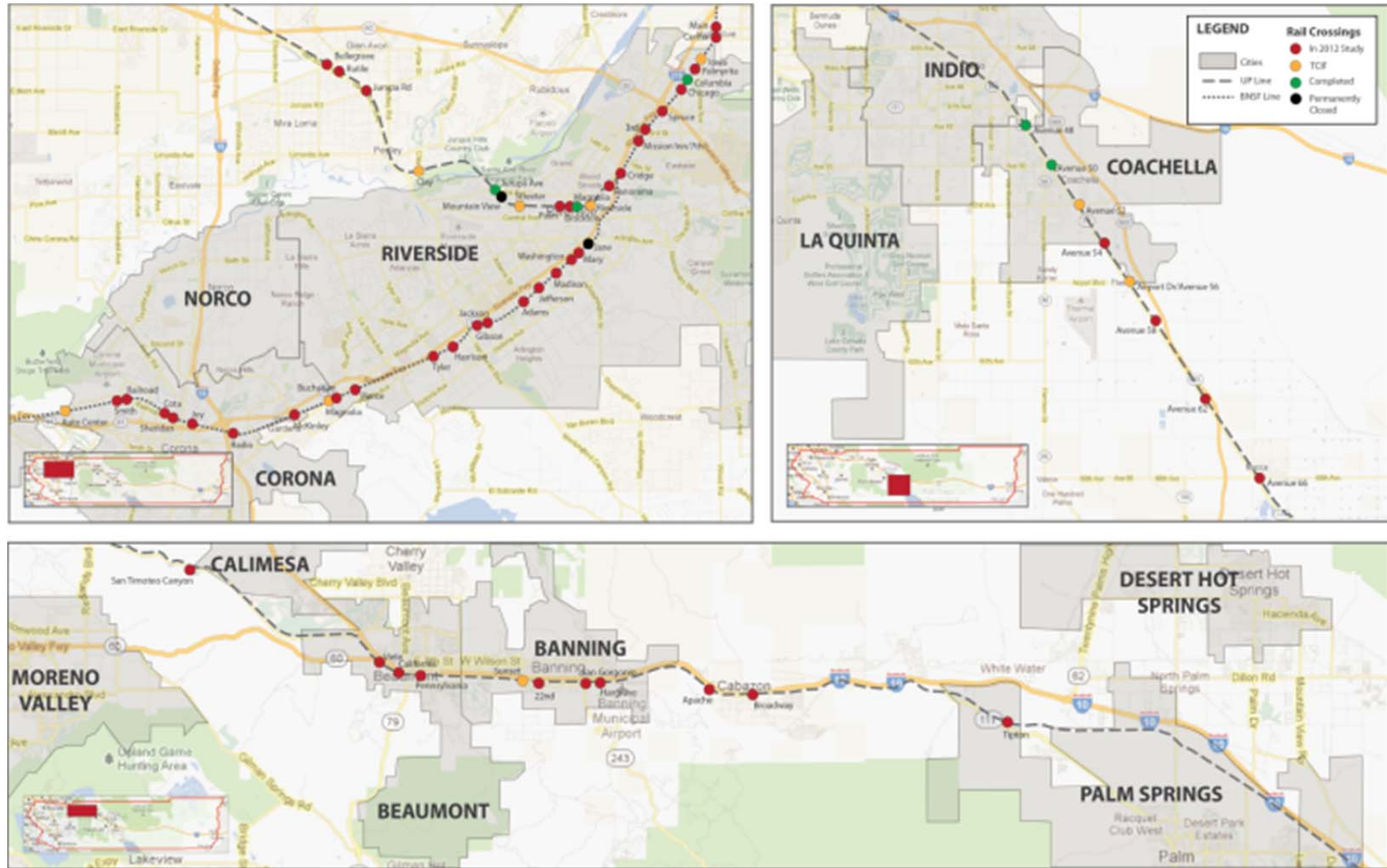
Active Transportation (Bicycles and Pedestrians) and Low-Speed Transportation

Agencies throughout Riverside County are working to provide local and regional trails, bikeways, and sidewalks to make bicycling and walking ("active transportation") more viable modes of travel for short trips, and to connect these facilities to long-distance regional facilities and form regional networks for active transportation. Additionally, several communities are providing facilities that accommodate low-speed motorized vehicles for travel without needing to travel in mixed traffic with autos and trucks.

Key Findings and Strategic Considerations of Existing and Future Conditions

- Forecast population growth in Riverside County of 926,000 (41%) by Year 2040.
- Forecast jobs growth of 537,000 (87%) by 2040.
- Continued low future jobs-housing ratio despite robust jobs growth forecast.
- Forecast growth is expected to substantially increase highway congestion despite the highway improvement projects currently underway and in the pipeline.
- Opportunities to expand transit service to fill unmet needs are constrained by funding limitations.
- Continuing growth in freight rail traffic means that additional railroad grade separations will be needed to reduce traffic delays at rail crossings, but additional sources of funding are needed.
- Active transportation facilities are an important component of the transportation system, to facilitate short trips without use of an auto and to provide better bicycle and pedestrian connections to transit.

Figure ES.6: Location and Status of Rail Crossings in Riverside County



ES.4. Current Plans and Policies

Current Plans

The future of transportation in Riverside County is laid out in a diverse array of planning documents that have been developed by various responsible agencies. **Table ES.4** identifies current plans, responsible agencies, transportation modes, and planning horizons.

Table ES.4: Summary of Current Transportation Plans for Riverside County

Plan	Agency	← Improvement Plans for →									Planning Horizon	
		High-ways	Mgd Lanes	Arterial Roads	Intchg, Grd Sep.	Rail Transit	Bus Transit	Active Trans	Habit -at	NEV	Long Term	Short Term
2013 CA State Rail Plan	Caltrans					X					X	
General Plan Circulation Element	County of Riverside	X		X				X			X	
CVAG Non-Motorized Transportation Plan	CVAG							X			X	
TUMF Regional Roadway System	CVAG			X	X			X			X	
SR-91 Implementation Plan	OCTA/RCTC/ Caltrans	X	X		X	X	X				X	X
Measure A Expenditure Plan (2009-2019)	RCTC	X	X	X	X	X						X
Western Riverside County Highway Delivery Plan (2006)	RCTC	X	X		X							X
Comprehensive Operational Analysis	RTA						X					X
Comprehensive Operational Analysis	SunLine Transit Agency						X					X
Regional Transportation Plan	SCAG	X	X	X	X	X		X			X	
Short-Range Transit Plans	SunLine, Corona, Banning, Beaumont, Riverside, Palo Verde						X					X
Western Riverside County Non-Motorized Transportation Plan	WRCOG							X			X	
TUMF Regional System of Highways and Arterials	WRCOG			X	X			X			X	
Riverside County Multiple Species Habitat Conservation Plan (MHSCP)	Western Riverside County Regional Conservation Authority								X		X	
Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)	Coachella Valley MSHCP								X		X	
4-City Neighborhood Electric Vehicle Transportation Plan	WRCOG, Corona, Norco, Riverside and Moreno Valley									X	X	X
Neighborhood Electric Vehicle (NEV) Plan	CVAG									X	X	X

The Role of Measure A

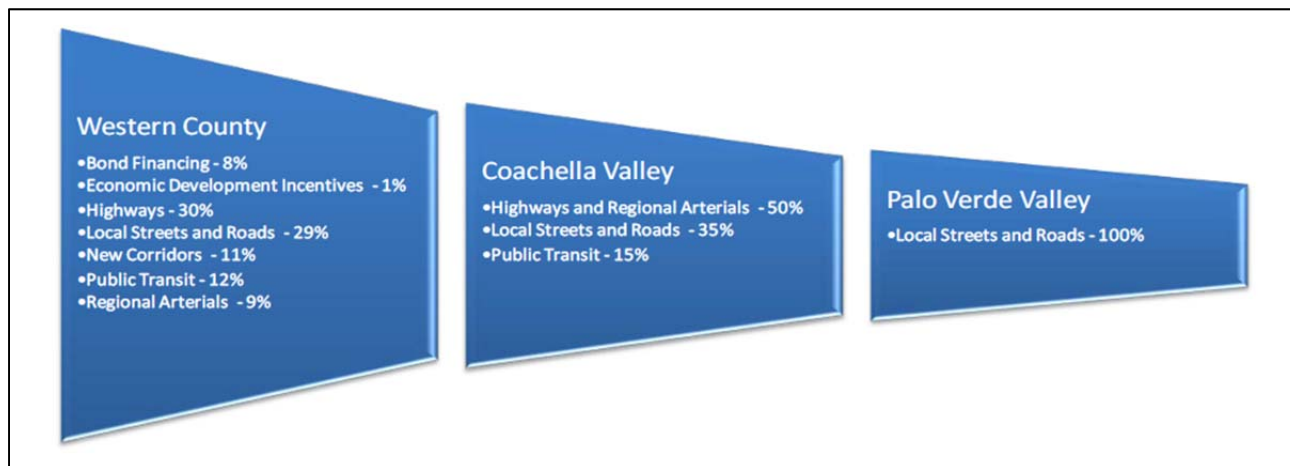
Central to RCTC's mission since 1989 has been the delivery of projects included in Measure A, the County's half-cent sales tax dedicated to transportation improvements. In 1988 County residents approved Measure A as a 20-year program (1989-2009), and in 2002 the voters approved a 30-year extension (2009-2039). Each measure included a list of transportation improvements to be delivered using the sales tax revenues. **Table ES.5** highlights Measure A projects that are completed, under construction, or planned in Western Riverside County and the Coachella Valley.

Funds raised by Measure A are returned to each of the County's three distinct geographic areas – Western Riverside County, Coachella Valley, and Palo Verde Valley – in proportion to their contribution. Generally, 75% of the funding is allocated to Western Riverside, 24% to Coachella Valley, and 1% to Palo Verde Valley. **Figure ES.7** illustrates the distribution of Measure A funds geographically and between programs.

Table ES.5: Summary of Measure A Projects

Western County	Coachella Valley
Completed 60/215 East Junction Project 74/215 Interchange Project I-215 South Project I-215 Bi-County Gap Closure I-215 Central Project SR-91/La Sierra Avenue Interchange Project SR-91/Van Buren Boulevard Bridge and Interchange Project SR-91/Green River Road Interchange Project I-215 Widening – Southbound – Blaine Street to Martin Luther King Boulevard) I-215/Van Buren Boulevard Interchange SR-74 Curve Widening Grade Separations: Auto Center Drive, Columbia Avenue, Iowa Avenue, Jurupa Avenue, Magnolia Avenue, Riverside Avenue, and Streeter Avenue Perris Valley Line – 24 mile commuter rail extension terminating in Perris (2016)	Completed SR-111: <ul style="list-style-type: none"> Make Improvements and Widen SR-111 through Indian Wells (Phases I-IV) Washington Street Intersection Improvement (La Quinta) I-10/Palm Drive/Gene Autry Trail I-10/Indian Canyon Drive I-10/Bob Hope Drive/Ramon Road Interchange I-10/Date Palm Drive I-10/Monterey Avenue Interchange Project Grade Separation Projects: Avenue 48/Dillon Road, Avenue 50, and Avenue 52
Under Construction 91 Project – Tolled Express Lanes SR-91 HOV Project Grade Separation Projects: Clay Street, Magnolia Avenue, and Sunset Avenue	Under Construction I-10/Jefferson Street Interchange Project Avenue 56 / Airport Boulevard Grade Separation Project
Future Term I-15 Express Lanes Project SR-60 – Add Truck Climbing and Descending Lane, Badlands area east of Moreno Valley 71/91 Interchange Project SR-71 Corridor Improvement Project SR-79 Realignment Project Mid County Parkway I-215 North Project 10/60 Interchange I-10 Truck Climbing Lane	Future Term SR-111: <ul style="list-style-type: none"> Signal Synchronization Project Intersection improvements and Street Widening in Cathedral City Widening Project in Indian Wells from Cook Street to the Eastern City Limit Madison Street to Rubidoux Street – Street Improvement Project (Indio) SR-86 Interchanges I-10 Interchange Projects <ul style="list-style-type: none"> I-10 / Monroe Street I-10 / Jackson Street Whitewater River Bridge Crossing (Avenue 50) Avenue 48 Widening (Jackson Street to Van Buren Street) SR-86/Avenue 50 Interchange Project Avenue 66 Grade Separation Project

Figure ES.7: 2009 Measure A Programs by Geographic Area



Source: RCTC Annual Budget

As part of the 2002 Measure A extension, RCTC is committed to supporting habitat mitigation in Riverside County. RCTC has fully paid its \$153 million obligation to the Western Riverside County Regional Conservation Authority (RCA) for the Multiple Species Habitat Conservation Plan (MSHCP), as promised under Measure A.

Long-Term Improvement Needs and Costs

Based on all the plans listed above in **Table ES.4**, a needs list was developed to indicate improvement projects needed to achieve full development of current plans. This is a comprehensive list covering all modes and all the various components of the regional transportation system in the County planned for a horizon year of 2040.

An order-of-magnitude cost estimate was identified for each project in the needs list using estimates available from recent studies or by applying typical unit costs to the needed improvement. **Table ES.6** summarizes the capital costs, which collectively total \$23.4 billion.

Table ES.6: Total Estimated Cost of Capital Improvements (2016-2039), by Mode/ Project Type

Mode/Project Type	Amount (in 2015 \$)
Freeways & Interchanges	\$8,724,000,000
Arterials	\$9,990,000,000
Grade Separations	\$1,528,000,000
Transit – Intercity and Commuter/Regional Rail	\$1,392,000,000
Transit - Bus Capital	\$1,092,000,000
Non-motorized/Active Transportation	\$642,000,000
Total	\$23,367,000,000

In addition to the capital improvements costs, the future transportation system will have substantial, ongoing operations and maintenance (O&M) costs due to planned improvements in rail and transit services. **Table ES.7** summarizes existing rail and transit O&M costs, which total \$156 million annually. **Table ES.8**

summarizes the annual O&M costs (in Year 2015 dollars) for the planned rail and transit system, which total \$562 million annually.

Table ES.7: Existing Annual O&M Costs for Transit and Rail

	Annual O&M Cost (in 2015 \$)
Metrolink	\$14,000,000
RTA	\$75,500,000
SunLine	\$52,500,000
Municipal Operators	\$3,200,000
Specialized Transit	\$10,800,000
Total Existing Annual Countywide Transit O&M Cost	\$156,000,000

Table ES.8: Future (2040) Annual O&M Costs for Planned Transit System

Mode	Annual O&M Cost (in 2015 \$)
Intercity Rail	\$30,200,000
Commuter/Regional Rail	\$126,200,000
Basic Local Bus	\$246,400,000
Enhanced Local Bus	\$144,600,000
Regional Express Bus	\$14,300,000
Total Future Annual Rail and Transit O&M Cost	\$561,700,000

Current Policies

Following is a summary list of key policies currently in effect relative to the transportation system and its development and operation:

Freeways and Highways

- The Freeway Service Patrol program of commuter assistance delivers a high benefit-cost ratio for delay reduction on freeways, however, there is limited funding available to expand the FSP program.

Managed Lanes and Tolling

- RCTC has secured specific legislation that guides the development and operation of toll facilities on SR-91 and I-15. Similar legislation has not been passed for toll lanes on other highways.

Arterials and Local Streets

- TUMF programs in Western Riverside County and the Coachella Valley place some responsibility for funding transportation improvements on the development generating the need for improvements.
- Local agencies must maintain their existing commitment of local funds for street, highway and public transit purposes to receive Measure A Local Streets and Roads funds.

Rail and Transit

- The 2008 Transit Vision includes:
 - Provisions to guide annual allocation of Measure A and TDA funds, as well as percentages for specialized transportation contribution of Measure A;
 - Vision for potential Perris Valley Line extensions to San Jacinto and Temecula;
 - Funding split formula for transportation funds in Western Riverside County: 78% for public bus and 22% for commuter rail.
- CVAG has established a policy to dedicate 10% of the Coachella Valley's annual TDA State Transit Assistance (STA) funds to establishing passenger rail service.

Non-Motorized / Active Transportation

- The State of California has redirected programming responsibilities for active transportation funding from MPOs to the State.
- RCTC and local cities must now compete to secure a portion of the 50% of total funds made available annually through the Active Transportation Program statewide funding solicitation.

Sustainability / Climate Change / Environment

- Senate Bill 535 requires a portion of cap-and-trade funds to be directed to disadvantaged communities. Grant applications for these funds should involve projects that are located in or directly benefit disadvantaged communities. Riverside County includes a number of the disadvantaged communities that have been identified statewide.
- Executive Order B-30-15 mandates a 40 percent reduction in GHG emissions below 1990 levels by 2030, so regional agencies must take climate change into account in their planning and investment decisions and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives.

Funding / Finance

- The 2013 RCTC Comprehensive Debt Management Policy allows RCTC to investigate innovative project financing methods where appropriate (TIFIA, toll revenue-backed bonds) for future projects.
- The *2013 Edition RCTC Full Speed Ahead 2009-2019 Delivery Plan* provides for exploration of alternative procurement and delivery options such as design-build and public-private partnerships.

Strategic Issues and Policy Gaps

The review of current plans and policies presented in the preceding sections raises several issues deserving consideration in the Strategic Assessment. They include strategic issues that should be considered because of changing conditions or needs, as well as issues which are not currently addressed by adopted plans or policies ("gaps"). This section outlines the plans and policies that fall into one of these categories, and summarizes the issues or questions that should be considered in the Strategic Assessment.

Technology and Automation

The rapid advancement of technology will affect the future of transportation, especially promising the potential to make the system safer and more efficient. Strategic issues to consider include:

- Could the emergence of automated vehicles increase the capacity of the highway system so that some planned improvements may be no longer necessary?

- Will the emergence of car-sharing systems substantially change auto ownership patterns in the future, and how will that affect traffic volumes and congestion levels?
- How can traveler information systems be used in the future to enable travelers to make optimal travel choices, and how much can that improve the efficiency of the system?
- Can technological advancements be tapped to improve service and reduce costs for serving the transit-dependent?

Congestion Management vs. Greenhouse Gas Reduction

State laws, policies, and funding programs put increasing emphasis on reduction of greenhouse gases (GHG), often to the detriment of strategies to reduce traffic congestion through highway capacity expansion. Riverside County will need to improve all components of its transportation system to provide adequate mobility for the 3.2 million people projected to live in the County in 2040. Strategic issues to consider include:

- What land use strategies can realistically be implemented in Riverside County to shorten driving distances and to enable people to accomplish more of their mobility needs without the need for an automobile?
- What strategies can be pursued to bring more employment to Riverside County so people can live closer to their jobs?
- What strategies can be pursued to provide more Riverside County residents with good mobility alternatives to the single-occupant automobile?
- How can Riverside County best contribute to, and be compatible with, the SCAG region's Sustainable Communities Strategy while providing good quality of life for its residents including meeting their mobility needs?
- What highway system improvements will be important for supporting economic development in Riverside County and minimizing time people waste in congested traffic?
- What is the optimal mix of transportation system investments so the system is both ecologically and financially sustainable?

Funding Availability and Allocations. Current funding sources will be very inadequate to pay for all the County's future transportation improvement needs. Also, funding sources are increasingly dedicated to particular modes or purposes, which affects the types of projects that are possible to fund. Strategic issues to consider include:

- Are RCTC's funding allocation policies still appropriate in light of system investment needs and emerging trends in state and federal funding?
- Is the current split of funds between bus transit and rail transit appropriate for the future?
- How can transit service be substantially expanded in the future and be financially sustainable? Farebox revenues cover only a portion of transit O&M costs, and funding sources for transit O&M are limited.
- How should RCTC determine funding priorities, given the inevitable shortfall of revenues in relation to identified needs?
- As new funding sources are considered and realized, what policies can be adopted to make sure the funds are directed to improvements that are truly important for meeting Riverside County's transportation needs?
- Is there funding availability to meet the maintenance and operations needs of the Commission-owned commuter rail stations?

Regional Emergency/Evacuation Planning. There is no plan in place for dealing with a catastrophic event that would require large-scale evacuation or disable key components of the regional transportation system in Riverside County for extended periods of time.

Key Findings and Strategic Considerations of Current Plans and Policies

- Long-range planning for Riverside County transportation is addressed in a large number of plans developed by multiple agencies. Not all plans are coordinated among one another.
- Measure A requires a ten-year update of the Expenditure Plan in 2019.
- The Measure A Western County Highway Delivery Plan will shortly need to be updated to address the period 2019-2029.
- The Riverside County transportation system has a total capital improvement need of \$23 billion by 2040
- The Riverside County rail and transit system has an estimated annual transit O&M cost of \$562 million (2015 dollars) in 2040.
- To contribute to state greenhouse gas reduction goals, rail and transit service should be developed in concert with transit-oriented development and employment centers.
- Active transportation funds must now be competitively pursued at the state level by local agencies.
- Western Riverside County has fixed split percentages for allocating funds to bus and rail, and O&M cost needs in each sector will change over time as system needs continue to evolve.
- Emerging technological innovations have the potential to substantially increase operating efficiencies of the transportation system, as well as provide users with better information about travel choices and conditions.

ES.5. Funding Analysis

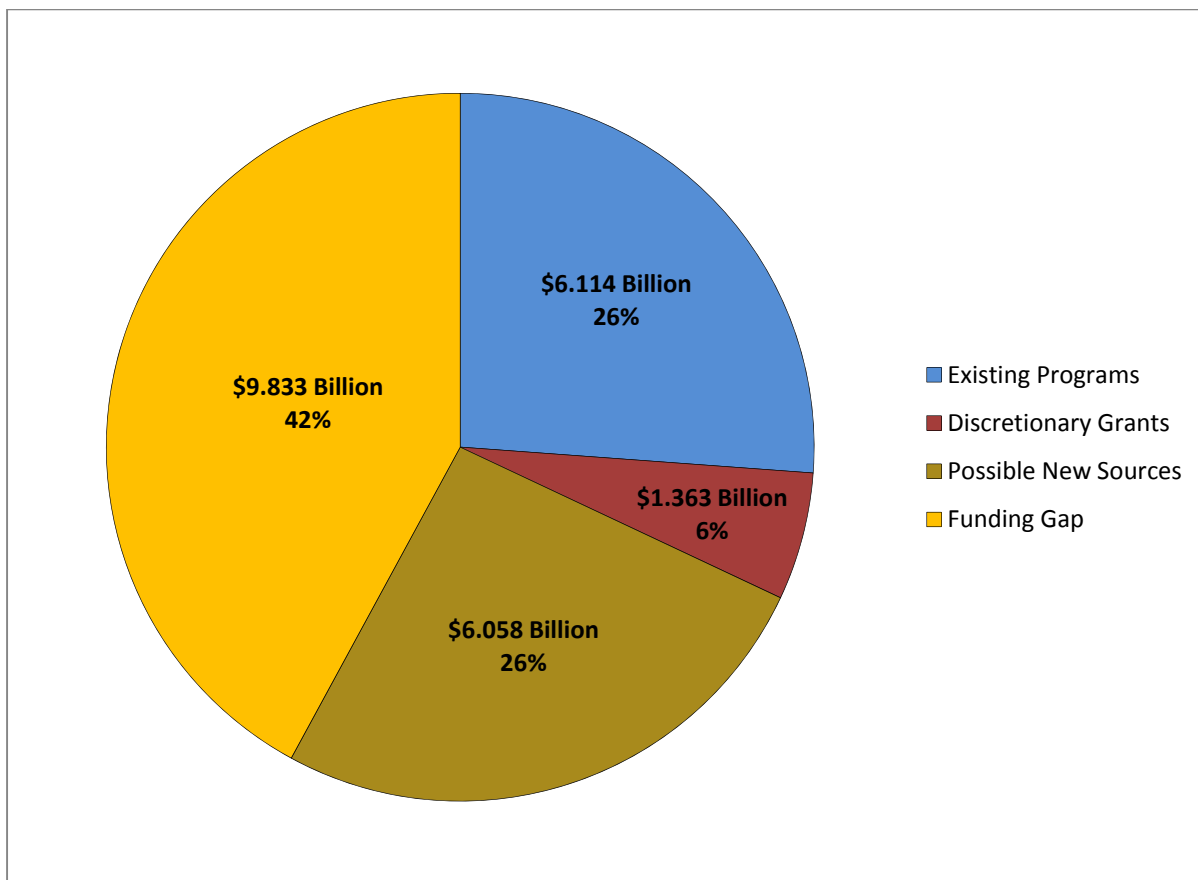
Revenue sources at the federal, State, and local levels were identified and analyzed for their future funding potential, both for capital improvements and transit operations and maintenance (O&M). Estimates for each revenue source were developed based on a combination of factors, including 1) the assumed continuation of prior year funding amounts, 2) planning documents from the relevant programming agencies, 3) independent forecasts, and 4) consultations with RCTC staff. Revenue sources were assigned to one of three categories:

- **Category A** – existing revenues reasonably expected to be available countywide in the future, including those from formula programs or ongoing levies/fee programs (example: TUMF)
- **Category B** – existing unprogrammed revenues that Riverside County might realistically secure on a discretionary or competitive basis (example: cap and trade grants)
- **Category C** – “strategy revenues” that are contingent upon the implementation of future federal or State legislation or project-specific funding mechanisms (example: mileage-based user fees, highway or express lane tolls)

Funding for Capital Projects

Figure ES.8 illustrates the availability of capital funding in relation to the projected \$23 billion need. Existing programs (Category A) can cover 26% of the need, and plausible discretionary grant funds (Category B) can cover another 6%. This leaves a funding gap of almost \$16 billion (two-thirds of the total need).

Figure ES.8: Funding Sources for Capital Improvements 2016-2039



Revenue from potential new sources of funds (Category C) at the various levels of government has been estimated for the purpose of illustrating how much the funding gap could be filled by particular sources. Eight potential funding sources have been quantified, and their potential revenue is shown in **Table ES.9**. Of potential new revenues that could be adopted at the local level, an additional sales tax would generate the greatest amount of funding. A freeway mitigation fee or vehicle license fee each has the potential to generate one-third to one-half as much as a quarter-cent sales tax, and toll revenues on other highways (besides the 91 and 15) would generate about 50% less than those.

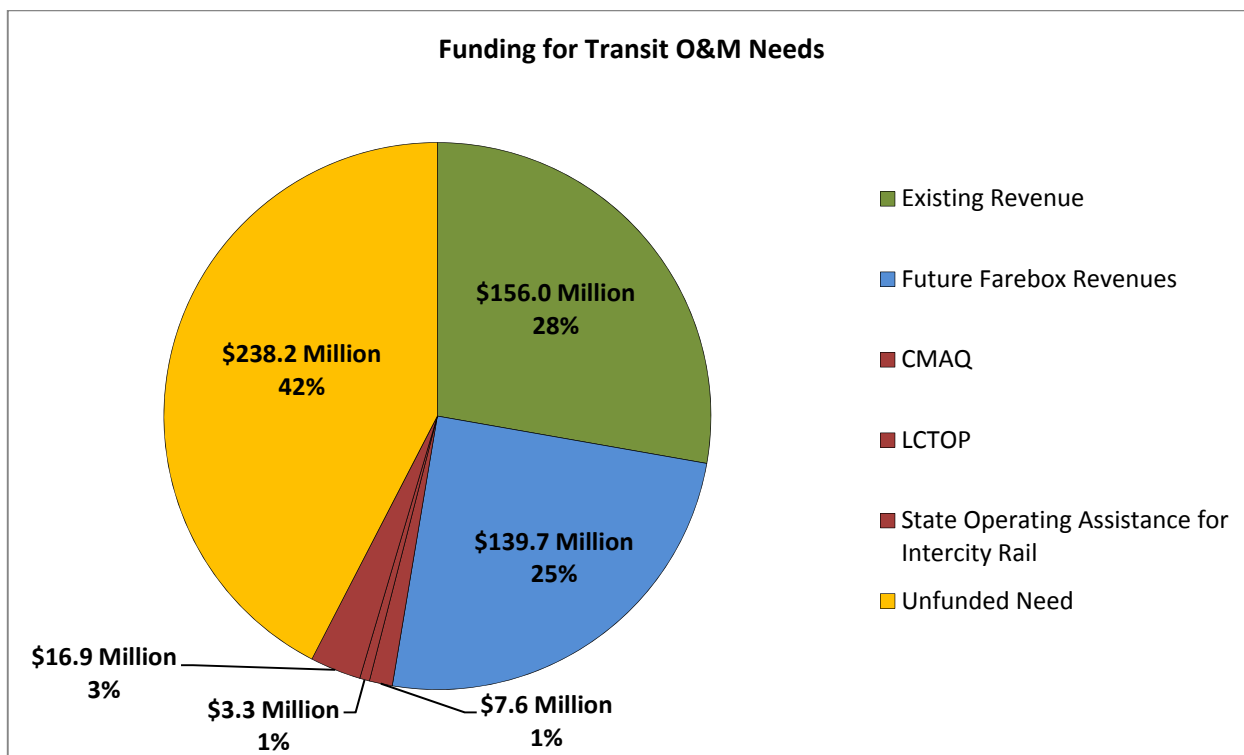
Table ES.9: Estimate of Potential Revenue from New Sources (Category C)

	Estimated Revenue by 2040 (in 2015 \$)
Federal Gas Tax Increase	\$587,000,000
State Gas Tax Increase	\$847,000,000
Mileage-Based User Fee (State)	\$1,957,000,000
Measure A2 – 1/4 cent increase for 20 years	\$1,265,000,000
Vehicle License Fee increase	\$422,000,000
Freeway Mitigation Fee	\$585,000,000
Tolls on Additional Express Lanes	\$241,000,000
Private Railroad Funds	\$153,000,000
Total	\$6,058,000,000

Funding for Operations and Maintenance Costs

Figure ES.9 illustrates the available funding for rail and transit operations needs in the Year 2040. Available sources of revenue for future (new) services are limited to farebox revenue and three current funding programs that collectively can cover 30% of the total need, leaving an O&M funding gap of \$238 million annually for the planned 2040 rail and transit system. No sources of substantial new O&M funding are currently under consideration at any level of government.

Figure ES.9: Funding for Rail and Transit O&M in Year 2040



Key Findings and Strategic Considerations of Funding Analysis

- The County's transportation capital needs total \$23 billion over the next 25 years, and current revenue sources are estimated to be able to generate \$6.1 billion.
- There is potential to generate additional capital funding through competitive grant sources. The estimated potential additional revenue is about \$1.3 billion, leaving an estimated funding gap of \$15.9 billion.
- The funding gap could realistically be closed substantially with potential new sources that have been talked about at the local, state, and federal levels, even if those sources were plausible.
- Current sources of funding for O&M will be unable to fund the rail and transit services planned for the Year 2040, leaving an estimated annual gap of about \$238 million, or 42% of the total O&M costs. No new significant sources of O&M funding are under consideration at any level.
- Of potential new revenues that could be adopted at the local level, an additional sales tax would generate the greatest amount of funding. A freeway mitigation fee or vehicle license fee each has the potential to generate one-third to one-half as much as a quarter-cent sales tax, and toll revenues on other highways (besides the 91 and 15) would generate about 50% less than those.

ES.6. Public and Stakeholder Attitudes

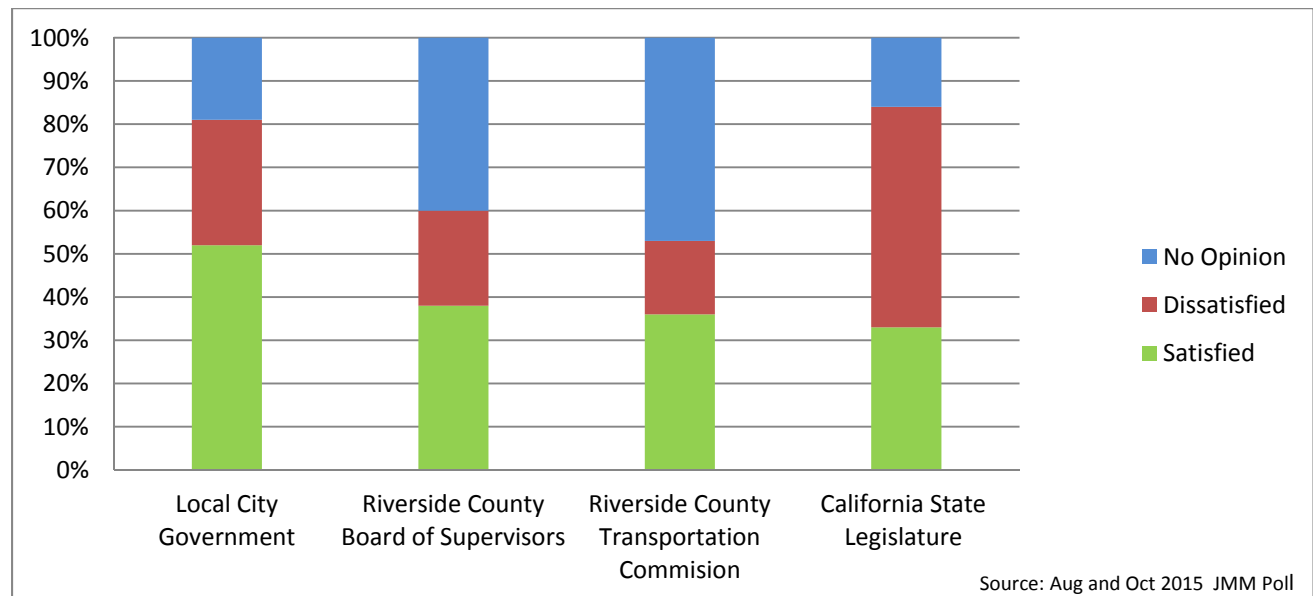
Public and stakeholder attitudes were gauged through two types of activities: (1) telephone polling of a random sample of 800 Riverside County voters conducted during August and October, 2015; and (2) a series of five community summits held in August/September 2015 plus a public workshop held in Blythe in October 2015.

Polling of Registered Voters

Based on the polling, the following are the key messages and perspectives of the voting public.

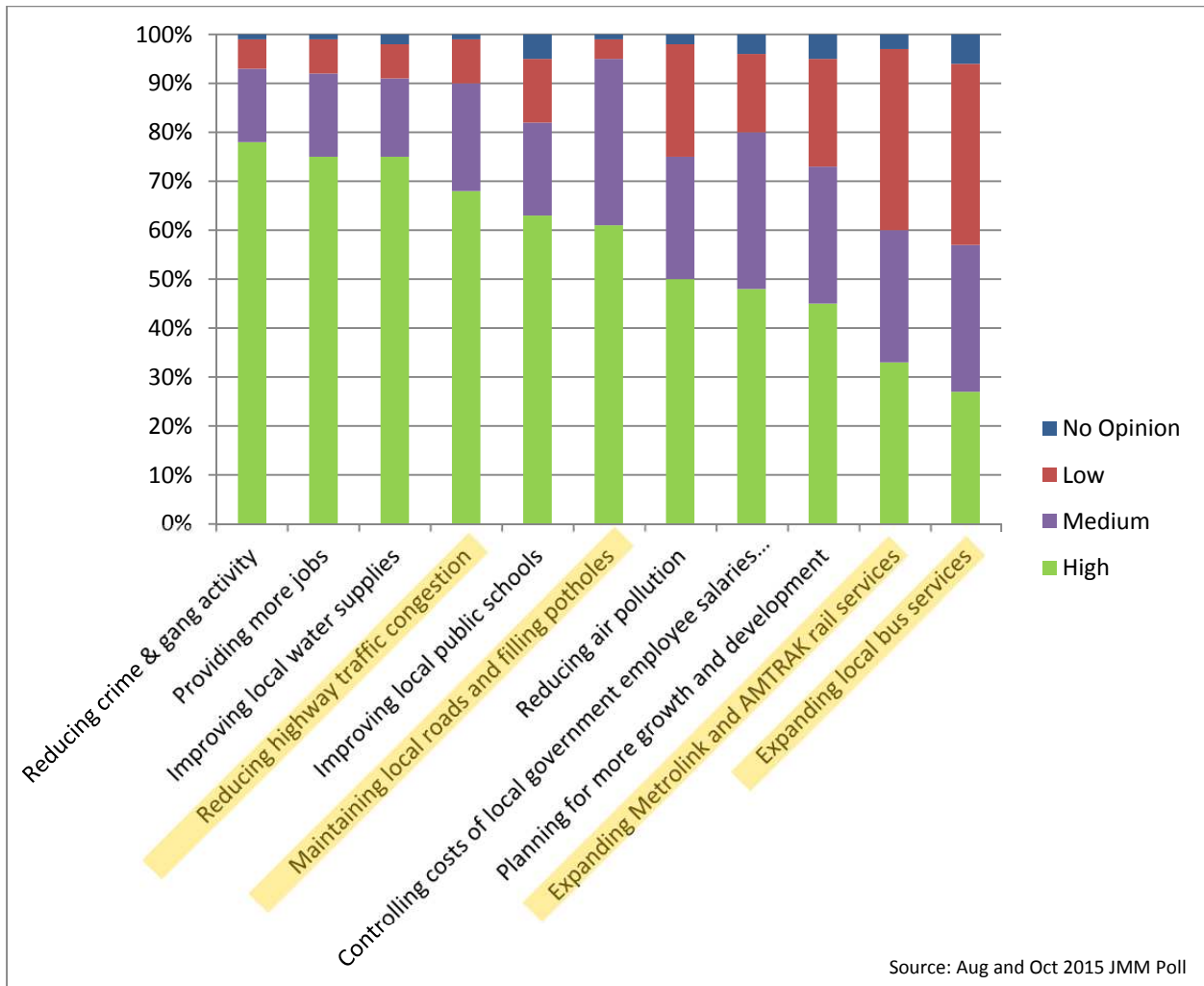
Views of Government. Respondents in general do not have favorable opinions of government (see **Figure ES.10**). “No Opinion” numbers are high for RCTC, likely because many voters do not know who RCTC is or what it does.

Figure ES.10: Views of Government Performance



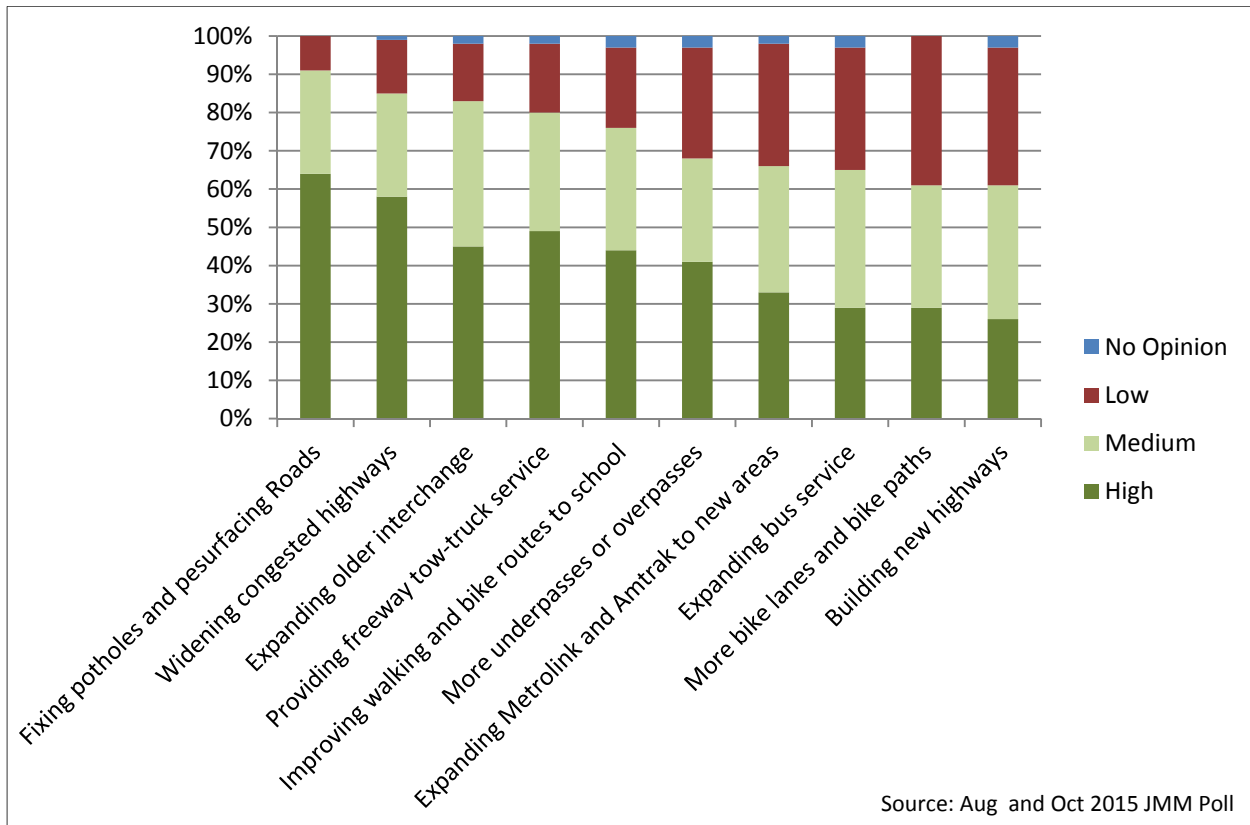
Priority of Issues. Reducing highway congestion is the transportation issue of highest priority, following the three top issues of reducing crime, creating jobs, and improving water supplies (see **Figure ES.11**). Roadway maintenance is also a high priority issue. Expanding rail and transit services are much lower priorities to voters.

Figure ES.11: Priority Issues for Riverside County



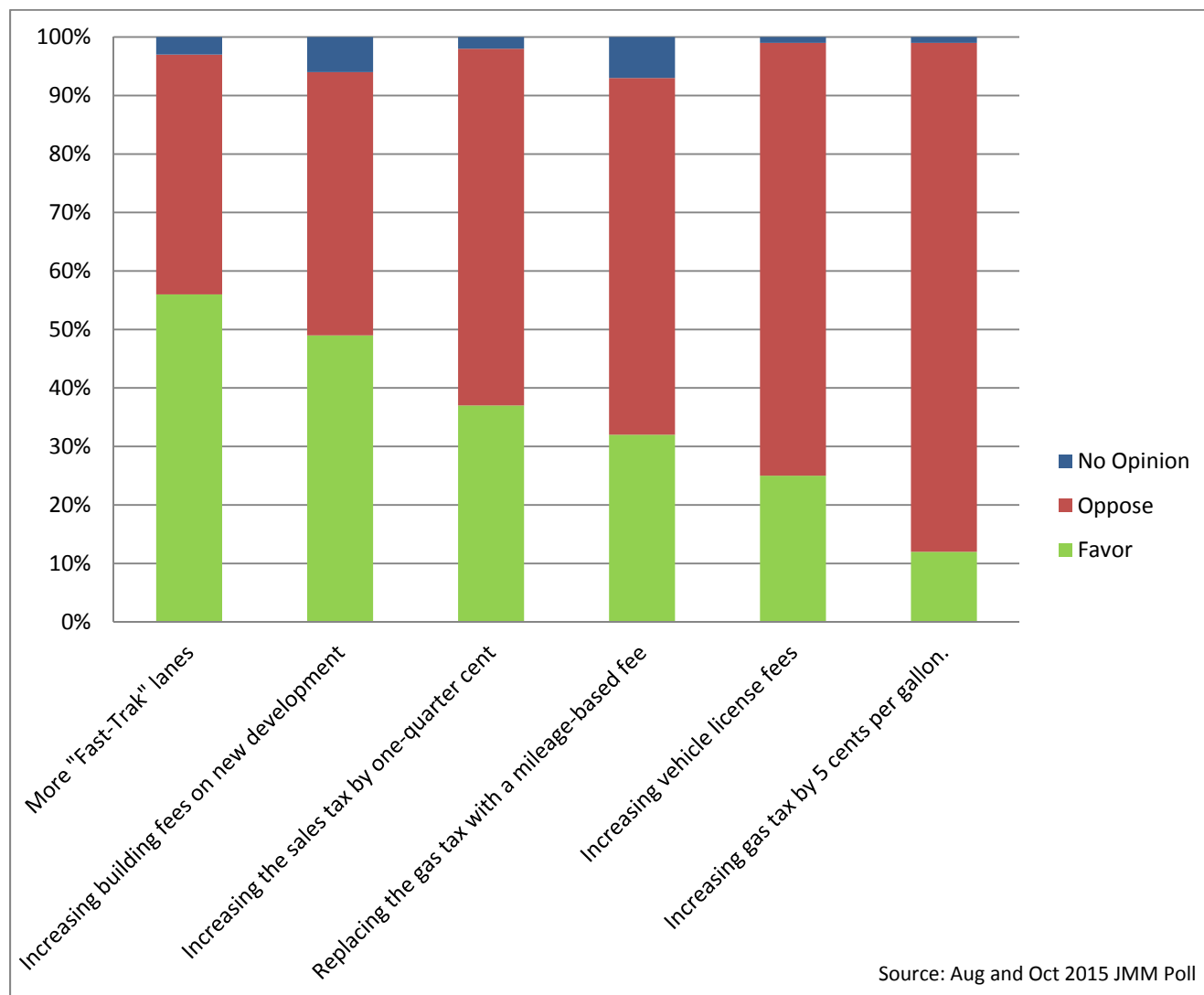
Priority of Transportation Improvement Types. Fixing potholes and widening highways to reduce congestion are the highest transportation priorities for voters (see **Figure ES.12**). Expanding older interchanges and providing freeway tow truck service gets very high marks. Walking and bike routes to school are higher priority than bike lanes and bike paths in general. Improving rail and bus transit are medium priorities, and new highways are a relatively low priority.

Figure ES.12: Support for Transportation Improvements



Support for New Revenue Sources. When asked about their support for different types of new revenue sources (see **Figure ES.13**), a majority of voters support building new FasTrak lanes, and almost half support increased fees on new development. Other fees and taxes get lower levels of support, ranging from 37% support for a quarter-cent sales tax down to 12% support for increasing the gas tax by five cents per gallon.

Figure ES.13: Support for Alternative Revenue Sources



Summits and Workshops for Stakeholders and the General Public

Stakeholders attending the Summits were a diverse group representing many interests within Riverside County, with a strong focus on environmental awareness, alternative transportation options, and governance/policy issues. Inputs received at each of the summits are summarized in **Figure ES.14**, and the following discussion highlights some of the main messages.

Transportation needs. Accessibility to public transportation was identified repeatedly as a need, including safer sidewalks, ADA accessible curb ramps, and better connections between transit systems. First mile / last mile access and access for seniors were also identified as needs. Many participants were not aware of some transportation services currently being provided.

How to solve/address the needs. Participants frequently mentioned improvements to public transit, including extending hours of service; more routes and improved frequencies; access to information on availability and schedules; access to alternate modes; use of alternative fuels; and ensuring transit is affordable to all residents. Stakeholders also indicated that better communication, land use policies, and elected official involvement would address some of the needs. Participants emphasized the need to link transportation and land use policies, respect the needs of users in improving quality of life, ensure better connectivity between rural and urban areas, and maximize capacity through the use of existing infrastructure and information technology.

The major challenges: Nearly every group discussion during the Summits concluded that funding (finding it, getting it, keeping it) was a significant challenge to transportation progress. Stakeholders also identified the length and complexity of the environmental process, changes to the political landscape, and government/development policies as potential challenges.

Key Findings and Strategic Considerations of Public and Stakeholder Attitudes

- A substantial portion of the public is unfamiliar with RCTC.
- Transportation issues are important to the public, but currently not as important as crime, jobs, and water issues.
- Top public priorities for transportation improvements include roadway maintenance and reducing highway congestion. Freeway Service Patrol also gets strong support.
- Public support for new revenue sources is strongest for express toll lanes, and moderate for increased fees on new development. Additional fees and taxes are opposed by a majority of voters, with the greatest opposition to a gas tax increase.
- Stakeholder groups and the public identify improved accessibility to public transit as an important need, including more hours of service, service to more areas, and better/easier connections.
- Other stakeholder desires – better land use/transportation linkages, more consideration for user quality of life, better rural/urban connectivity, and use of emerging technologies to help address transportation needs.
- Stakeholders consistently identified the lack of funding as the biggest challenge to achieving needed improvements.
- Other key challenge to address – reducing the length and complexity of the environmental process.

Figure ES.14: Summary of Summits and Workshop

Riverside

Jobs & Economy

Create a direct link for goods movement between the 15 and 91. Increase frequency for public transit. Deal with congestion near schools through land use collaboration. Additionally, attract more local jobs by encouraging affordable housing near jobs thereby reducing travel times. Extend train service on weekends and weekdays.

Innovation and Technology

Communication makes transit attractive. Provide tech training for seniors, Disabled, Students and affinity groups such as bicyclists. This will enhance safety, encourage satellite offices, reduce trips, and help people working at home. More integrated planning; destroy silos with intergovernmental coordination around cross jurisdiction services. Build express bus service with signal pre-emption and special lanes.

Access for All

Better interconnection to key destinations such as jobs and hospitals with clearly defined destinations, wayfinding, and transfer stations. More bike racks on buses, dial-a-ride services to adjacent cities, and additional routes to areas not covered by RTA such as La Sierra and Orangecrest. Provide more comfort through amenities such as shade and seating for all.

Environment

More information about closures and detours. Improve 511 accuracy. Create incentives such as ride a bus day, ride your bike day, and pre-tax transit passes. Promote alternative fuels. Provide later Metrolink service between Riverside and San Bernardino. Promote existing services.

Perris

Jobs & Economy

The community needs more job opportunities. Improve East-West corridor through Moreno Valley. Enhance training and apprentice programs for community college students and veterans. Seek more benefits from the warehouses that are everywhere with 60+ near March AFB alone. Consider how we keep people employed when transportation projects are done. Enhance cooperation between RCTC and SANBAG to enhance connections to jobs.

Innovation and Technology

Create new channels of communications to the public such as Apps, kiosks at every station, and one method of payment for all systems. Create events like Ciclavia and partner with communications companies for tickets from home and notifications. Provide more charging stations for electric cars.

Access for All

Challenge: Difficult to get assistance for seniors and the disabled. Need additional funding, longer hours. There is a lack of educational information about existing programs such as schedules, bicycle safety education, carpool/vanpool awareness, and adequate pedestrian facilities. Consider neighborhood support, neighbors driving seniors and the disabled. RCTC, be ambassadors to get the word out to the seniors.

Environment

Promote cross-county collaboration. Encourage incentives for logistics industry to stagger work hours and dedicated truck lanes/hours. Provide incentives to carpool. Change land use patterns and meet the AB32 and SB375 mandates. The solution is public/private partnerships working with non-profits, and incorporating visionary strategies from other states and countries.

Winchester

Jobs & Economy

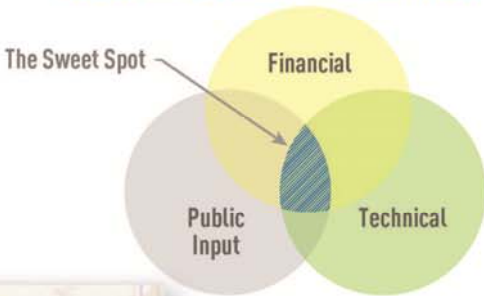
Widen existing corridors such as Scott Rd., Bundy Canyon, and SR74. Improve accessibility to MCP & SR79 so businesses can move here. Metrolink

What We Heard

1. Maximize capacity through the use of existing infrastructure and information technology.
2. The County benefits when the nexus between transportation and land use planning is met.
3. Recognize the need for better connectivity between rural (affordable) and urban centers.
4. Generate transportation policy by respecting the needs of the users and how it makes their lives better and more convenient.



How Decisions Are Made - Your Input Matters



extensions to San Jacinto, Hemet, and Temecula. Concentrated communities, not urban sprawl. Challenges include funding, operations, environmental constraints, and maintenance.

Innovation and Technology

Need better planning and zoning changes with more mixed-use and more density. Improve connectivity between modes, with better scheduling and frequency, and a universal public transit pass. Use solar energy with charging opportunities. Incentivize alternative work schedules. Deal with distracted driving and reducing the need for single occupancy vehicles.

Access for All

Most important: Need more bike lanes, bus lines to Hemet with expanded service hours, and specialized transportation for students with special needs. Need wheel chair access. Look at comprehensive long range planning and better coordination with cities. Expand and complete trails system.

Environment

Provide more green technology for vehicles, charging stations, and bike renting services. Improve the trails with a network like CV Link, and provide more air-conditioned buses.

Temecula

Jobs & Economy

Add additional access from Orange County to San Diego and to airports. Expand I-15, 215, and SR74. Consider toll lanes, mainline improvements, and an east-west bypass. The goal is to attract hi-tech jobs to the area. Connect areas of interest, i.e., Old Town to the Mall.

Innovation and Technology

Education and outreach information critical. Uber changed the Taxi industry so use technology Apps for transit info. Change land use policies and provide incentives for developers to create a more viable biking and walking infrastructure.

Access for All

Safety. Class II bike trails not always safe. We need creative ideas such as

floating parking, dedicated streets, and raised bike lanes. Better transit for college. First and last mile connectivity.

Environment

Streamline CEQA and encourage telecommuting. Help change minds-sets and habits to increase use of transportation options and build walkable communities.

Palm Desert

Jobs & Economy

Need a transit center in east Coachella Valley with connections to the rural areas, Blythe, Imperial Valley, and Mexicali. CV Link and an active transportation network means youth and sustainability. Reprioritize funds to achieve improved roadway maintenance. Allocate funding by community to provide flexibility encouraging local alternatives to active transportation. East Coachella Valley has no transit planning and limited rural transit resources plus political opposition to moving projects forward in the Salton Sea area. Freight movement creates jobs.

Innovation and Technology

Provide access to WiFi on buses. Increase the alternative fuel vehicles, the Sunline fleet, and consider smaller, electric buses. Technology can help overcome negative perception of mass transit services. Take care of what you have before you spend money elsewhere.

Access for All

Improve customer experience such as shaded bus shelters with benches, friendlier bus drivers, better planning because some parts of Coachella Valley have no sidewalks or bike trails. Provide better city lighting in eastern Coachella Valley. Rural areas are underserved and heavily reliant on cars with some people not owning them. Need affordable taxis for seniors to access medical facilities.

Environment

Funding is the main challenge. Currently, there are no incentives for residents to care or get involved in the political change process. Make the

case to the gated communities so they care. Land use is a major challenge to change behavior.

Targeted Focus Group - Alternatives to CV Link

Reprioritize funds to achieve improved roadway maintenance. Allocate funding by community to provide flexibility encouraging local alternatives to active transportation.

Blythe

Jobs & Economy

Not enough attention from RCTC. Bring the money for improvements out here. Connectivity is what will improve the quality of life in the Valley. Extended standard bus hours, a way to get to work on solar project without a car, the SunLine to Coachella and options to Palo Verde College after 7:00 pm.

Innovation and Technology

Develop Apps for local transit schedules and create a flexible schedule to adjust for rider demand like Super Shuttle. A clearinghouse to connect all resources together with one number for dispatch. Safety and education improvements needed.

Access for All

Approximately 20% of the local population is transit dependent. There is no taxi service, Uber, or local charter bus company to Phoenix. In the next 5-10 years huge growth in senior population. Better access to health care in Riverside, Loma Linda, Moreno Valley is critical. Volunteer reimbursement program and Technology can help facilitate Dr. Brooks volunteer program but recognize this is a temporary solution. There needs to be more planning here.

Environment

The recent bridge washout. Maintain and strengthen our infrastructure. Build a linear trail along the Colorado River. Provide bus shelters to protect against intense heat.

ES.7. Partner Agency Coordination

Interviews and meetings with partner agencies provided insights and information as to their views and priorities. A City Manager Roundtable was held on September 10 with the League of California Cities-Riverside Division Executive Committee, a Regional Agency CEO Meeting was held on September 30, and WRCOG/CVAG CEOs held a conversation with RCTC Executive Staff on October 8. Additionally, City Managers from the cities and the County of Riverside CEO's office were surveyed in order to identify priorities for their jurisdiction as well as for the region as a whole. Finally, the long-range transportation plans of adjacent counties were reviewed to determine the consistency of plans for inter-county corridors connecting to Riverside County.

Partner agencies' perceptions of Riverside County needs. City Managers see the TUMF program in western county as needing improvement. They also see a need for a cohesive voice from the region to state and regional (SCAG) government as well as a comprehensive countywide transportation plan. The top needs they identified for the county's transportation system include improving highway interchanges, fixing potholes and resurfacing roads, widening congested arterials, and expanding rail service to new areas of the county (see **Figure ES.15**).

Partner agency priorities. Based on the local agency survey, the individual jurisdictions' high priority categories included fixing potholes and resurfacing roads as the highest priority, followed by expanding older interchanges on major highways and improving walk and bike routes to schools (see **Figure ES.16**). Specific to transit operators, RTA needs to grow their service and construct a new central facility, while SunLine, needs to implement basic infrastructure improvements in addition to service expansion. (For example, making a bus stop ADA-compliant does not make sense if there are no sidewalks connecting to the bus stop.)

How partners think RCTC can help. RCTC could potentially coordinate/lead a countywide transportation plan that rolls up into the RTP/SCS. RCTC could also lead a coordinated strategy that could protect local transportation dollars and help local cities present a cohesive approach to state and federal funding opportunities. Cities could use RCTC's help in legislative advocacy, and in helping elected officials understand the existing programs, why they are important, how they are funded, and how infrastructure is a component of economic development. Additionally, RCTC could provide strategic support of City capital improvement programs by helping cities understand funding options for projects, building a strategy, and prioritizing projects. Partners also indicated that RCTC could provide best practices and case studies for how to get projects done, illustrate creative solutions that have been used by others, and provide specific technical staff resources on modeling, air quality, etc. to help project funding applications. A "toolbox of capability" at no/low charge to COG/cities could help create a consistent approach out of Riverside County on all project applications for funding (on modeling, congestion, issues, etc.). Agencies see an opportunity to partner with County and Regional Parks and feel that RCTC could lead this effort.

Future needs in inter-county corridors. For the most part, adjacent county's corridor plans are consistent with the plans in Riverside County. One key area of difference is the I-15 corridor between Riverside County and San Diego County. The long-range plan in San Diego County is to add two toll lanes each direction to the current eight general purpose lanes, and in Riverside County the improvement identified in Measure A is to add one general purpose lane in each direction. In the corridor connecting Riverside County to Orange County, the ongoing 91 project in Riverside County will bring the corridor to a consistent cross-section (two toll lanes plus five general purpose lanes) on both sides of the county line. In the long-term future, additional capacity may be needed in this corridor.

Figure ES.15: Regional Transportation Improvement Priorities for Local Jurisdictions

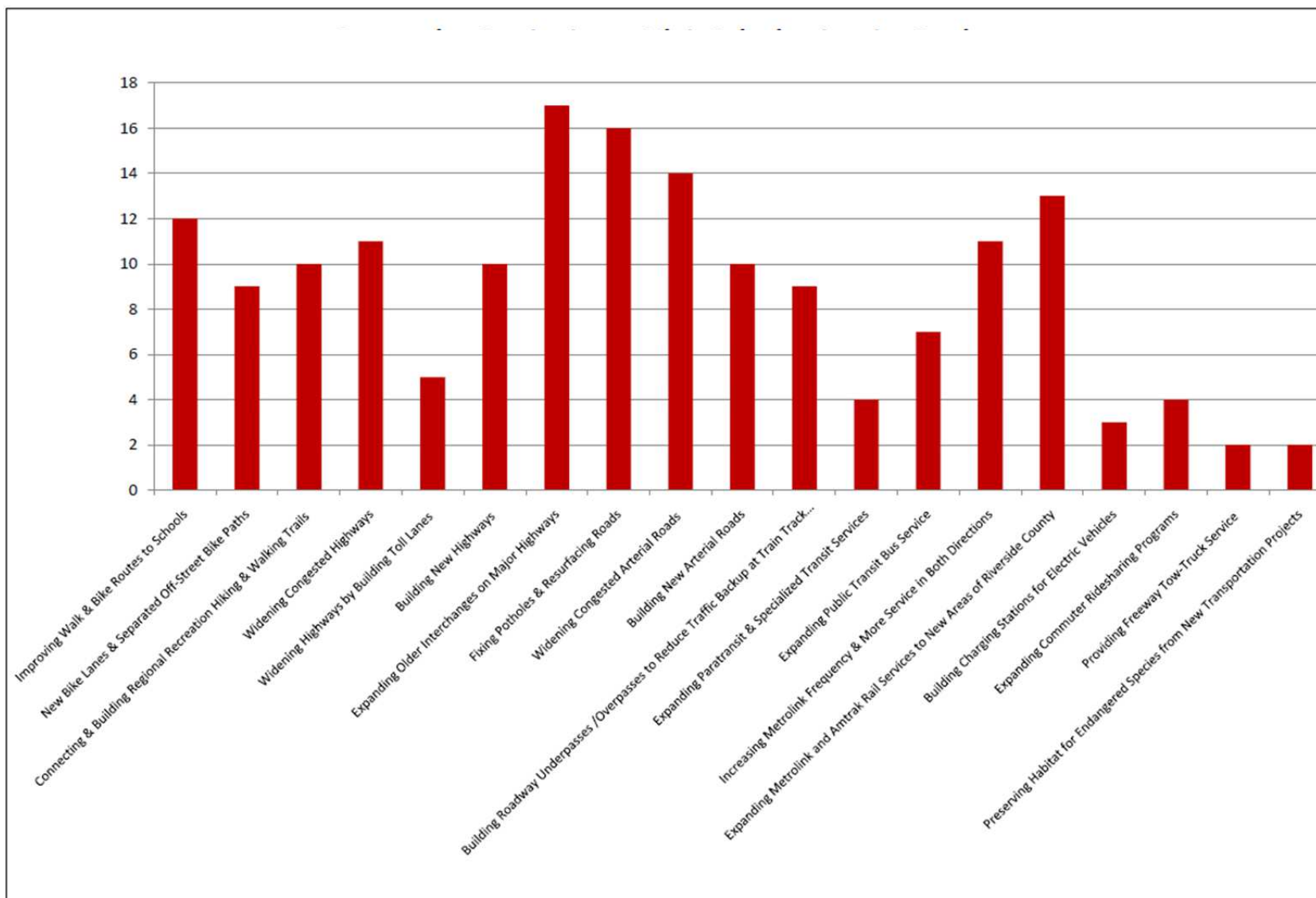
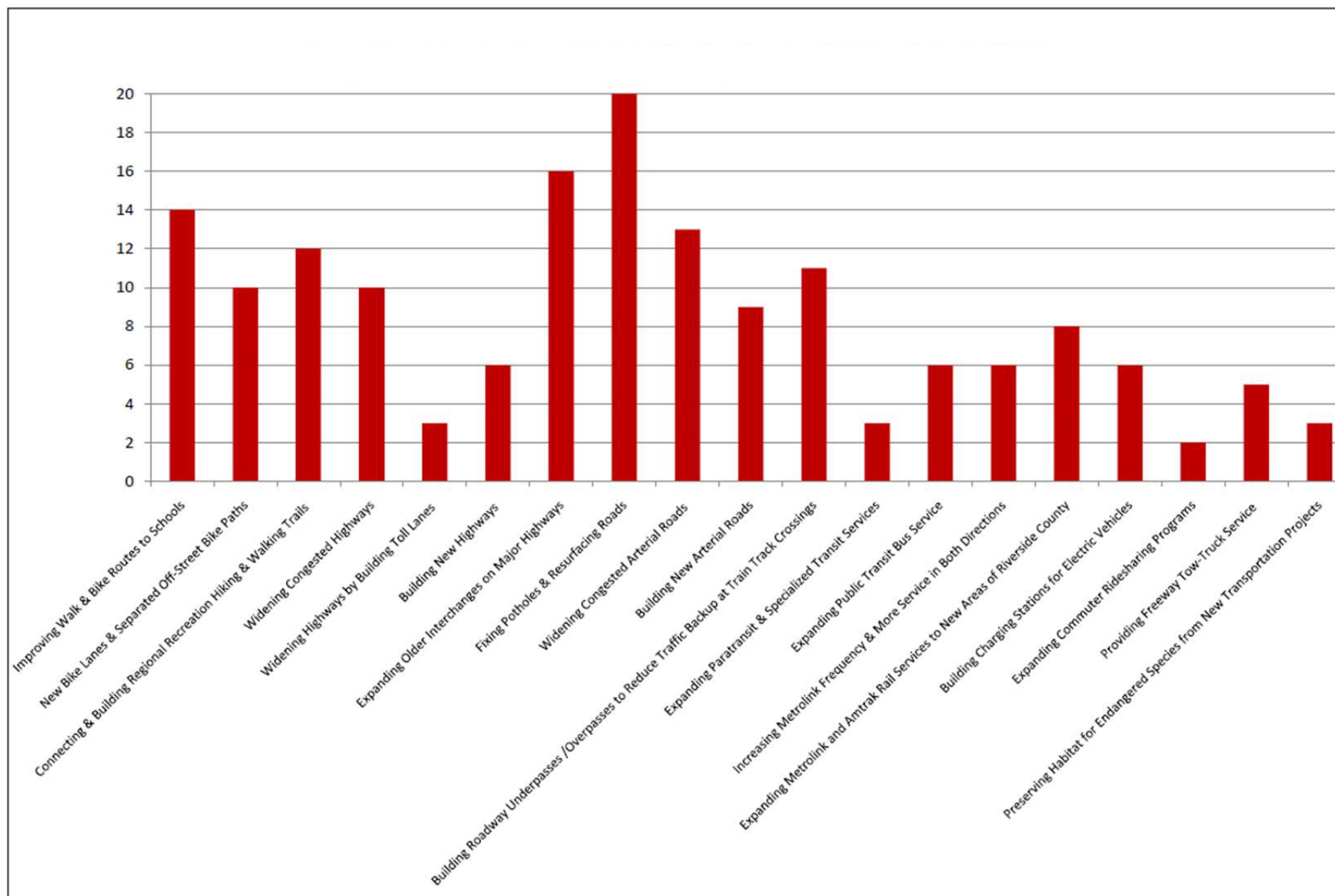


Figure ES.16: Local Transportation Improvement Priorities for Local Jurisdictions



Key Findings and Strategic Considerations of Partner Agency Coordination

- Roadway maintenance and improving older highway interchanges are the top transportation improvement needs as seen by RCTC's local (city and county) partner agencies.
- The local partner agencies desire RCTC to provide leadership and resources to enable a more effective coordinated approach to legislative advocacy and pursuit of funding from the state and federal governments.



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