SBCTA Long-Range Multimodal Transportation Plan

Stakeholder Working Group Meeting 3

March 28, 2024

AGENDA

1. Introductions
2. Plan Progress
3. Priority Area Discussion
4. Scenario Planning Update
5. Next Steps

LONG RANGE MULTIMODAL TRANSPORTATION PLAN

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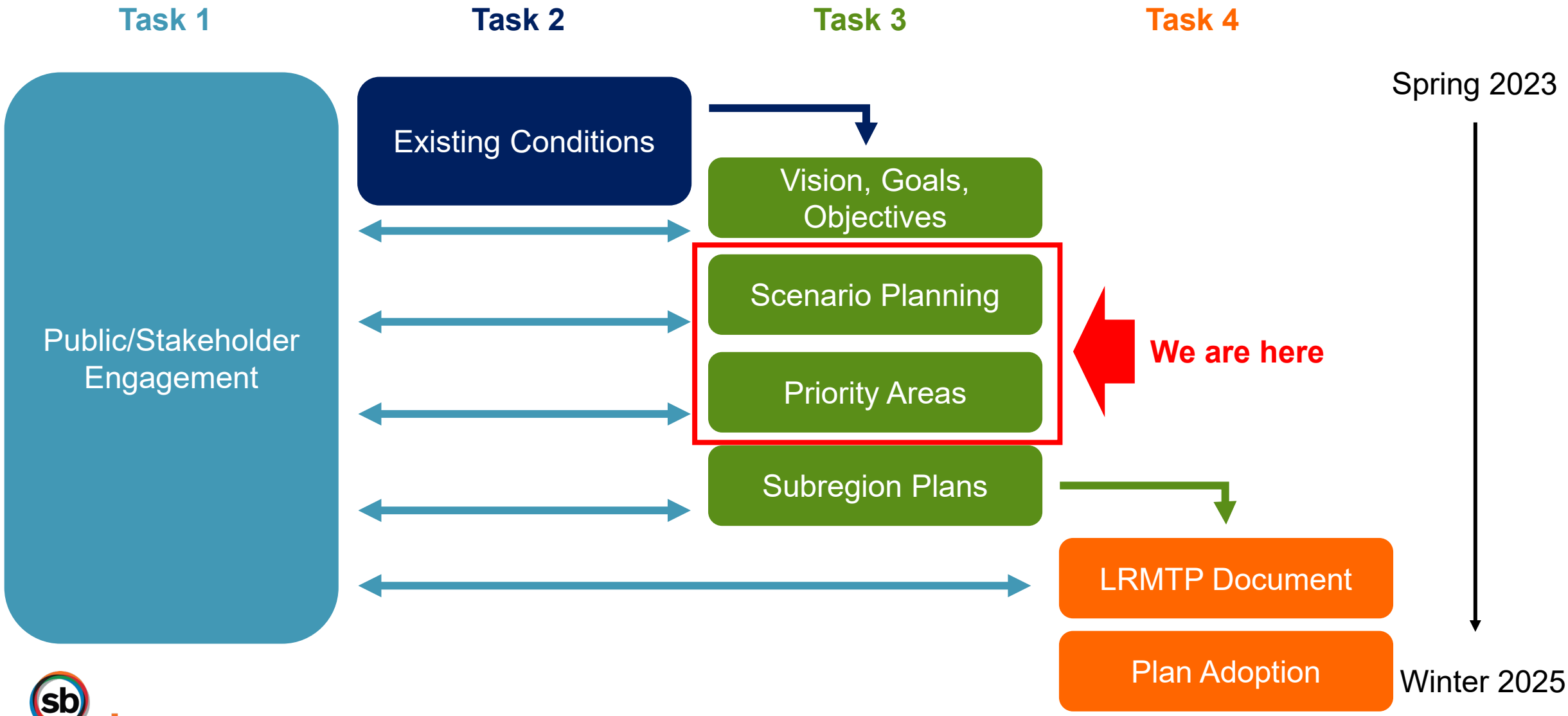
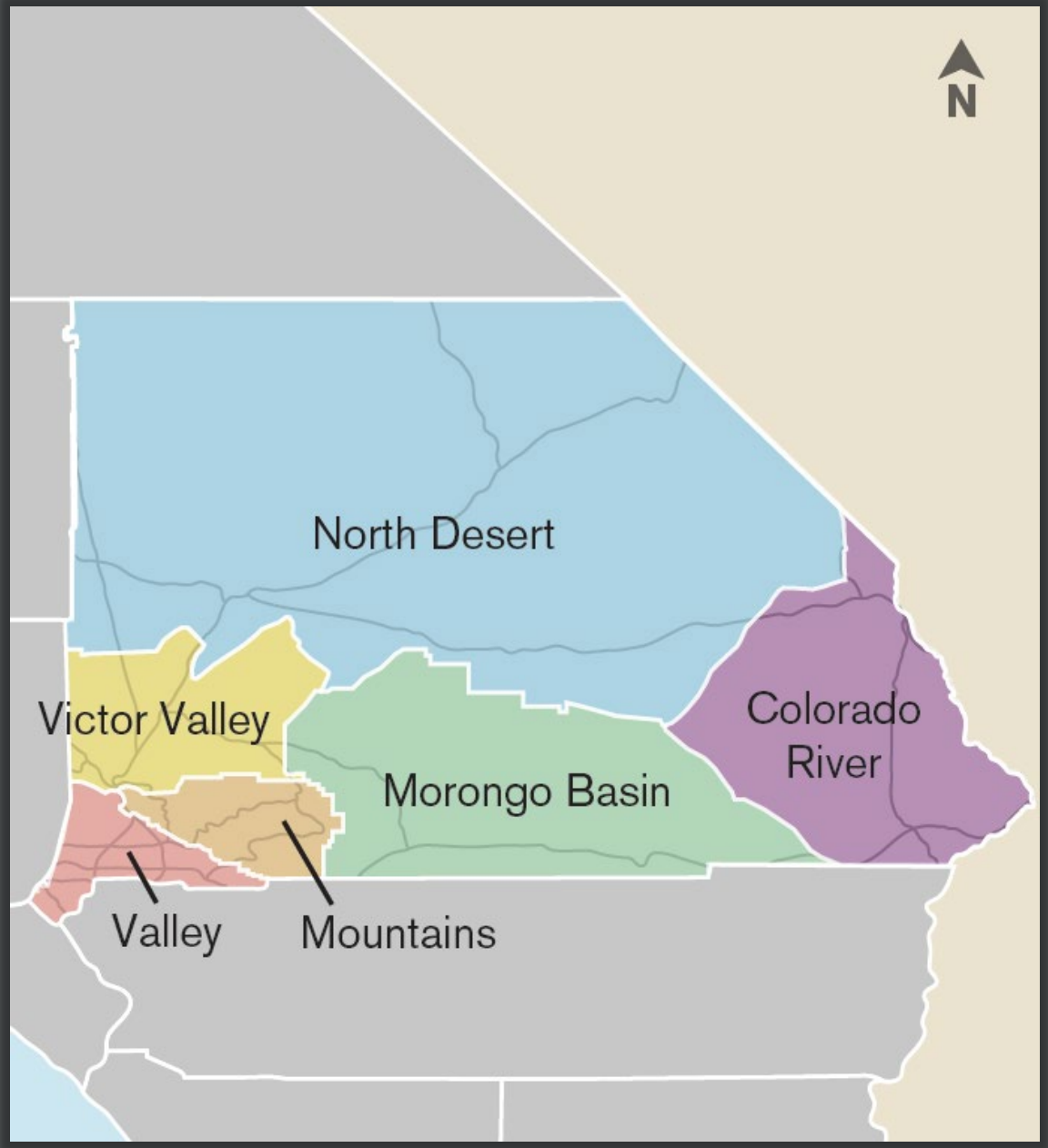
LRMTP Progress

LRMTP Project Process





LRMTP Subregions

- Consistent with Measure I
- Analysis and recommendations will follow the six subregion format

Recap of Last Meeting

- Provided results of online survey
- Discussed plan vision, goals, and performance measures
- Described scenario planning process
  - Transportation network
  - Background context conditions
- Discussed trends and drivers of travel behavior for background context scenarios

Priority Area Discussion

LRMTP Priority Areas

- SBCTA has identified several priority areas that must be addressed by the LRMTP
- The areas are divided into Core Elements of the transport system and Key Issues that span all modes:

Core Elements	Key Issues
Transit	Equity
Active Transportation	Health
Goods Movement	Safety
Highways	Land Use
	Environment
	Sustainability & Resiliency

Priority Area Analysis Format

- Introduction
- Topic Overview
- Current Plans and Recommendations
- Issues & Opportunities
- Multimodal Integration/Integration with other Key Issues
- Gaps and Next Steps

Core Elements

Transit Issues and Opportunities

- **Growing transit ridership**
  - Agencies are focused on recouping ridership after the precipitous decline during the pandemic
  - Opportunities include efforts to improve the rider experience and special fare promotions
- **Improving frequency, connectivity, and accessibility**
  - With limited funds available to pay for operating costs, improving frequency is challenging
  - Jurisdictional coordination can improve connectivity between services and accessibility of transit-oriented development
- **Ensuring safety and environmental / regulatory compliance**
  - Safety concerns are a barrier to ridership
  - Zero-emission mandates add to the regulations that agencies must comply with

Active Transportation Issues and Opportunities

- **Network gaps**
  - Gaps in the county's bike and pedestrian networks limit active transportation use and safety of users
- **Lack of dedicated funding**
  - Many projects are identified in local plans to address these gaps, but funding for most projects is not secured. Grant programs are an opportunity to fund projects, but overall need exceeds available funding
- **E-bike opportunities**
  - The adoption of e-bikes expands the number of users able to bike, the distance they can travel, and the number of trips that are suitable
  - Higher speeds can create conflicts with slower-moving cyclists on regular bikes

Highway Issues and Opportunities

- **State of Good Repair**
  - Polling shows that repairing roads is the public's top transportation priority, but gas tax revenue is falling
- **Long travel times** due to distances and congestion
- **Limited funding for new capacity**
- **Need to accommodate both freight and passenger movement**
- **Pricing strategy opportunities**
  - Can help manage demand and raise new revenue

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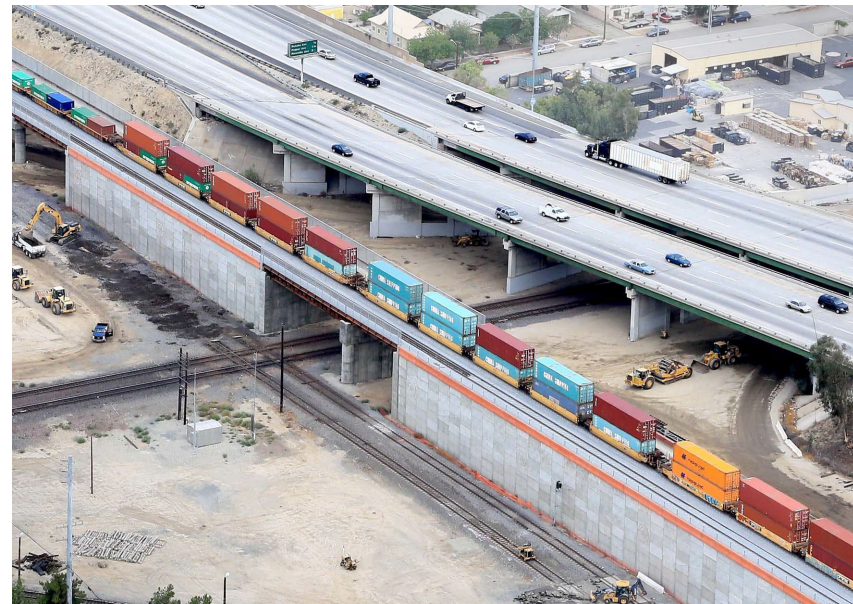
Goods Movement Issues and Opportunities

- **Congestion on major truck corridors**
  - Increasing goods movement demand leads to congestion and air quality impact
  - Freight as an economic driver
- **Safety Impacts**
  - Truck and at-grade highway-rail crossing collisions create a safety hazard for all road users
- **Local community concerns** regarding safety and health impacts
- **Funding gaps** for truck & rail corridor infrastructure improvements
- **Need for jurisdictional collaboration** to implement sustainable freight programs



Key Issues

Safety Issues and Opportunities

- **Active transportation safety**
  - A disproportionate share of collisions involve pedestrians and cyclists
- **Transit access safety**
  - Concerns over safety and security are a barrier to using transit or carpooling from park and ride facilities
- **Local opportunities**
  - Many jurisdictions have outdated or no plans for active transportation, presenting an opportunity to identify needed improvements
- **Design opportunities**
  - Speeding, improper turning, and unsafe lane changes are the most common factors in collisions
  - Design modifications targeting these factors can improve safety

Land Use Issues and Opportunities

- **Low-density, dispersed development** is difficult to serve with transit
- **Jobs-housing imbalance**
  - Many residents must commute long distances to jobs in other subareas or counties
- **Transit-oriented development**
  - Few places are economically feasible for multifamily or large-scale commercial development in current market conditions
  - Opportunities are increasing, including West Valley Connector and Brightline
- **Transportation and land use disconnect**
  - Decisions are made by separate entities, but there are opportunities for coordination

Equity Issues and Opportunities

- **Mobility and Connectivity**
  - Those without cars face challenges traveling long distances across the county to reach jobs and services
  - Transit frequency and service coverage is limited
- **Affordability**
  - Cars are expensive to own, operate and maintain
  - Low-income residents struggle to even pay for subsidized public transportation services
- **Adverse impacts**
  - Residents of communities near highways and warehouses face disproportionate burdens of pollution and safety risks from the transportation system
- **Targeted fare programs** can make transit more affordable

Environmental Issues and Opportunities

- **Transportation is a major contributor to emissions** driving climate change and poor air quality
  - San Bernardino County communities suffer disproportionately from air quality impacts
  - Truck traffic adds to air quality concerns
- **Zero-emission technology**
  - Electric vehicle adoption depends on the development of charging infrastructure
  - Transit agencies face an unfunded mandate to adopt zero emission buses
  - Current zero-emission buses face range and reliability concerns
- **Habitat conservation**
  - Transportation infrastructure can fragment natural habitats and act as a barrier to wildlife movement

Health Issues and Opportunities

- **Physical activity**
  - Walking and biking are an opportunity to improve health by being more active, but network gaps, long distances between locations, and comfort concerns limit active transportation in auto-oriented areas
- **Air and noise pollution**
  - Exposure to air and noise pollution can damage health, especially for communities along major transportation corridors
- **Access to health services**
  - Long travel distances and limited transit frequency and coverage are a barrier to access the health care system, particularly in rural areas

Sustainability and Resiliency Issues and Opportunities

- **Population growth**
  - Leads to increased stress on transportation infrastructure and additional greenhouse gas emissions
- **Projected increase in frequency and severity of extreme weather events**
- **Needed upgrades to fueling infrastructure and energy grid**
  - Increased adoption and use of alternatively fueled vehicles
  - Need for demand management and infrastructure resiliency
- **Affordability and feasibility of electric vehicle use**
- **Equity considerations** for disadvantaged communities and vulnerable populations affected by climate change

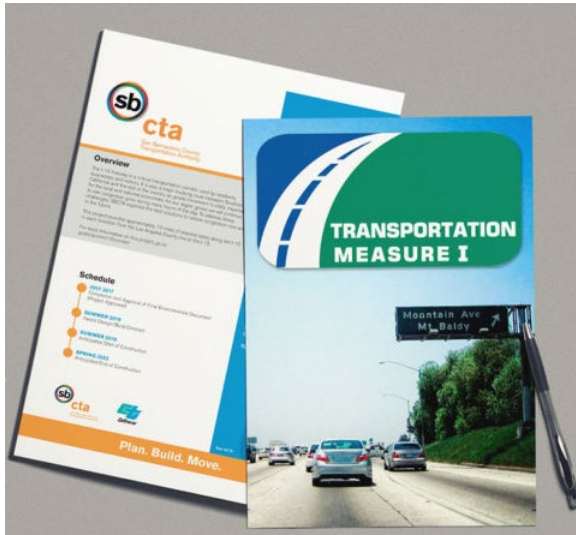
Scenario Planning

Scenario Planning Process

- Consider how future trends may affect the transportation system
- Model different potential futures and assess effects on outcomes
- Determine which issues and strategies rise to the top in multiple futures or perform better in particular scenarios

- Context scenarios were modeled using SBTAM+ (2050 horizon year)

Transportation Network	Demand Context		
	1	2	3
Baseline	A	B	C
Enhanced			



Context Scenarios

Scenario 1: “Business as Usual”

- Travel patterns return to pre-pandemic conditions
- Assumes 2019 travel behavior with 2050 population and employment

Scenario 2: “Virtual Future”

- Shift to remote work is permanent and grows stronger
- Assumes anyone who can work from home does so, reducing home-based work trips

Scenario 3: “Smart Growth”

- Assumes 2019 travel behavior with modified land use
- Future population and employment growth in the San Bernardino Valley is concentrated around major transit corridors

Virtual Future Results

- Mass adoption of telework has modest impact on overall VMT
- There is a larger reduction in travel time and delay, because work trips tend to occur at peak hours
- Transit ridership declines significantly

2050 Average Weekday Performance			
Performance Measure	**Business as Usual**	**Virtual Future**	**% Change**
Total VMT	91,000,000	87,000,000	-3.9%
Total VHT	2,130,000	2,000,000	-6.5%
Truck VMT	12,800,000	12,800,000	-0.4%
Truck VHT	242,000	235,000	-3.2%
Passenger VMT per household	82	78	-4.4%
Person Hours Traveled, work trips	890,000	620,000	-30%
Person Hours Traveled, non-work trips	1,510,000	1,630,000	+7.7%
Total delay	244,000	175,000	-28%
Hours of delay per household	0.26	0.18	-28%
Drive alone mode share, work trips	80.2%	80.3%	+0.1%
Drive alone mode share, non-work trips	39.6%	39.9%	+0.3%
Transit ridership (SCAG Region)	1,520,000	1,290,000	-15%
Truck delay	23,000	16,000	-29%

Metrics represent San Bernardino countywide results unless otherwise noted

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Smart Growth Results

- Omnitrans ridership increases 22% and Metrolink San Bernardino Line ridership increases 17%
- However, impacts on VMT and regional transit ridership are modest

2050 Average Weekday Performance			
Performance Measure	**Business as Usual**	**Smart Growth**	**% Change**
Total VMT	91,000,000	89,000,000	-1.8%
Total VHT	2,130,000	2,100,000	-1.9%
Truck VMT	12,800,000	12,700,000	-0.5%
Truck VHT	242,000	240,000	-0.9%
Passenger VMT per household	82	80	-2.1%
Person Hours Traveled, work trips	890,000	870,000	-2.3%
Person Hours Traveled, non-work trips	1,510,000	1,470,000	-2.7%
Total delay	244,000	240,000	-1.7%
Hours of delay per household	0.26	0.25	-1.7%
Drive alone mode share, work trips	80.2%	79.1%	-1.1%
Drive alone mode share, non-work trips	39.6%	39.4%	-0.2%
Transit ridership (SCAG Region)	1,520,000	1,540,000	1.6%
Metrolink San Bernardino Line	10,600	12,500	+17%
Omnitrans	119,000	145,000	+22%
Truck delay	23,000	22,000	-3.9%

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Business as Usual Delay Forecast

Congestion hotspots

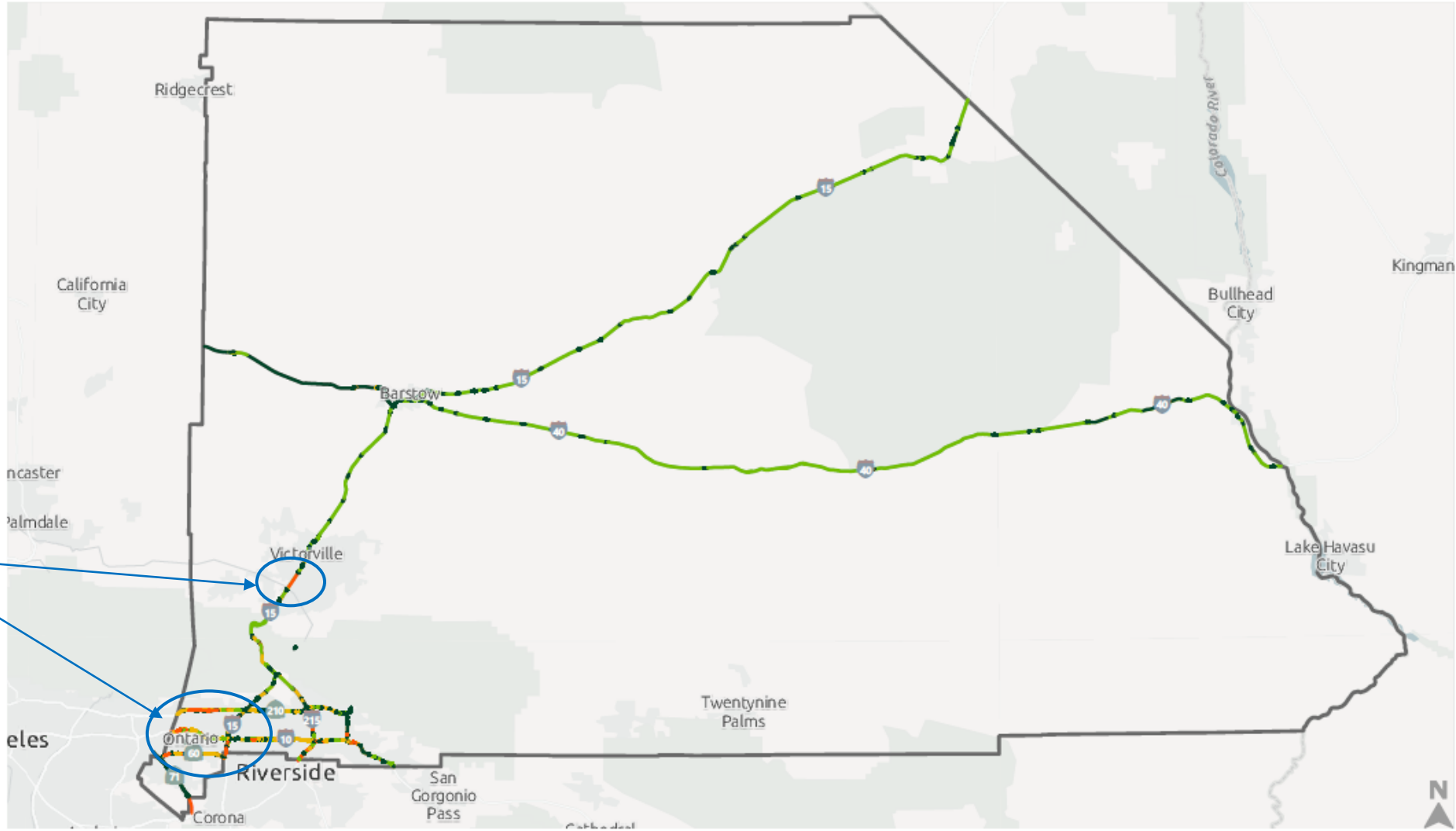

Figure 1A

Virtual Future Delay Forecast

Congestion hotspots are reduced

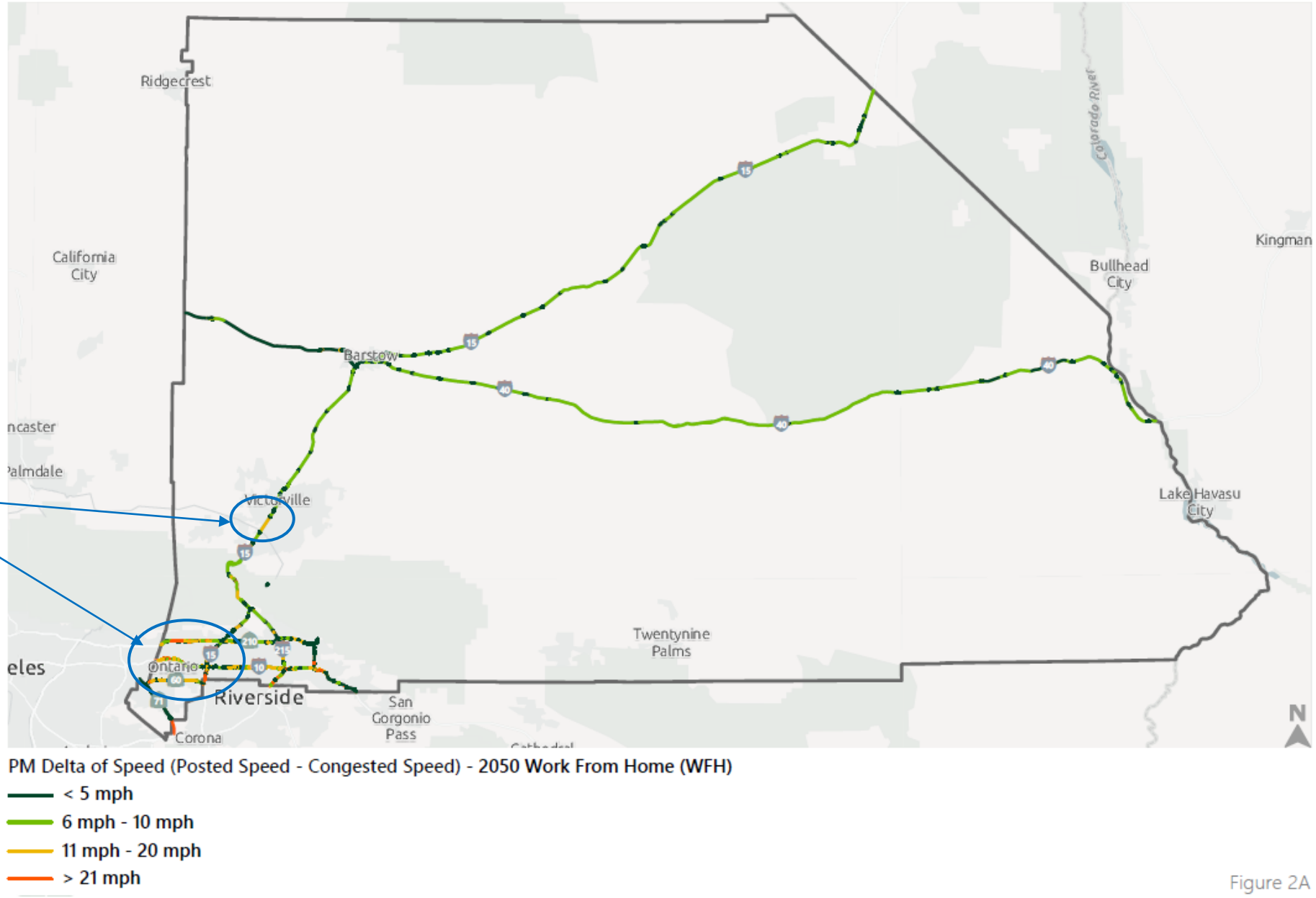

Figure 2A

Smart Growth Delay Forecast

- Changes from business as usual are modest

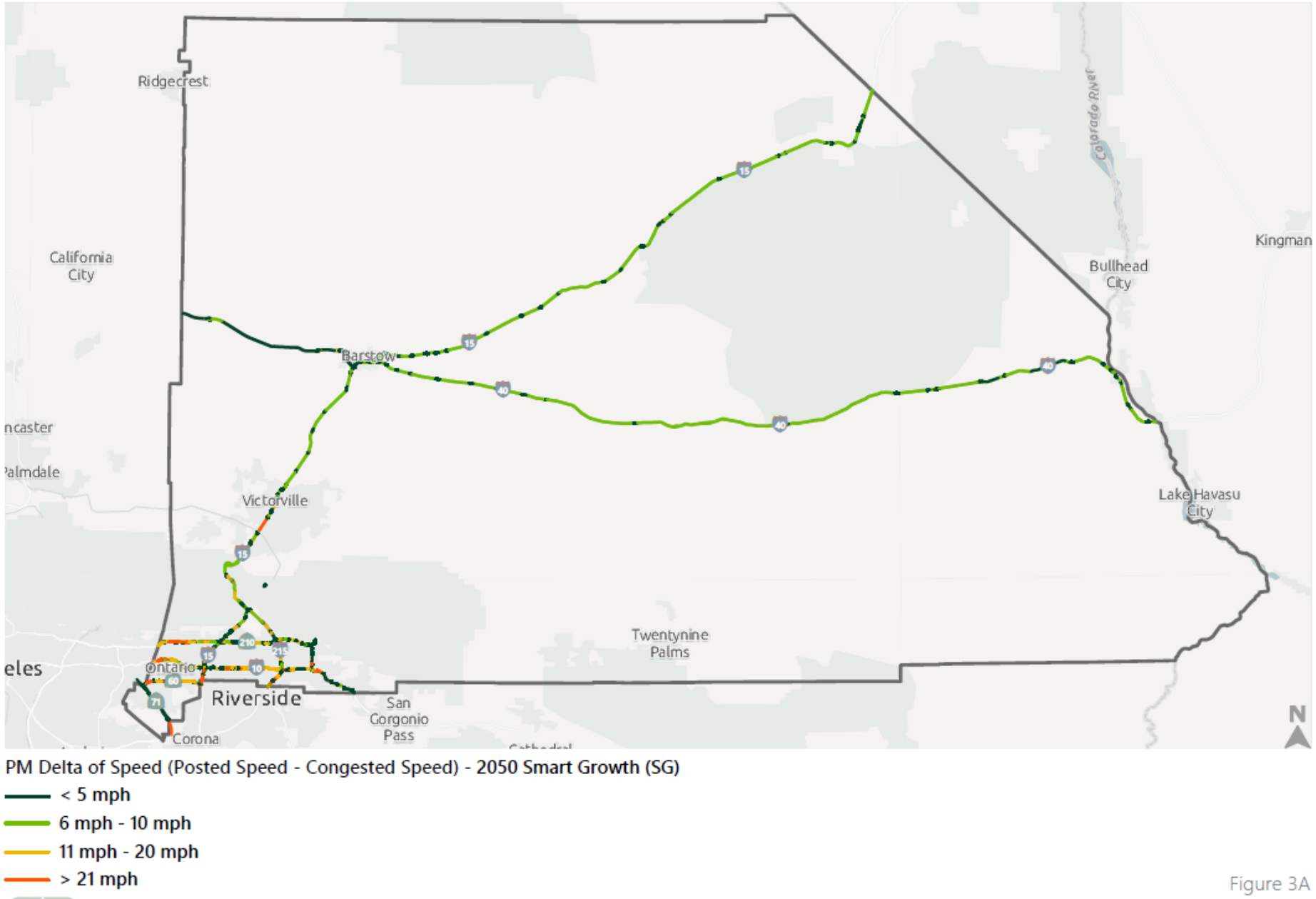

Figure 3A

Business as Usual Delay Forecast, Valley Area

SR-60 and SR-210 near LA County Line

Arterial congestion in Rancho Cucamonga

Colton/Downtown San Bernardino

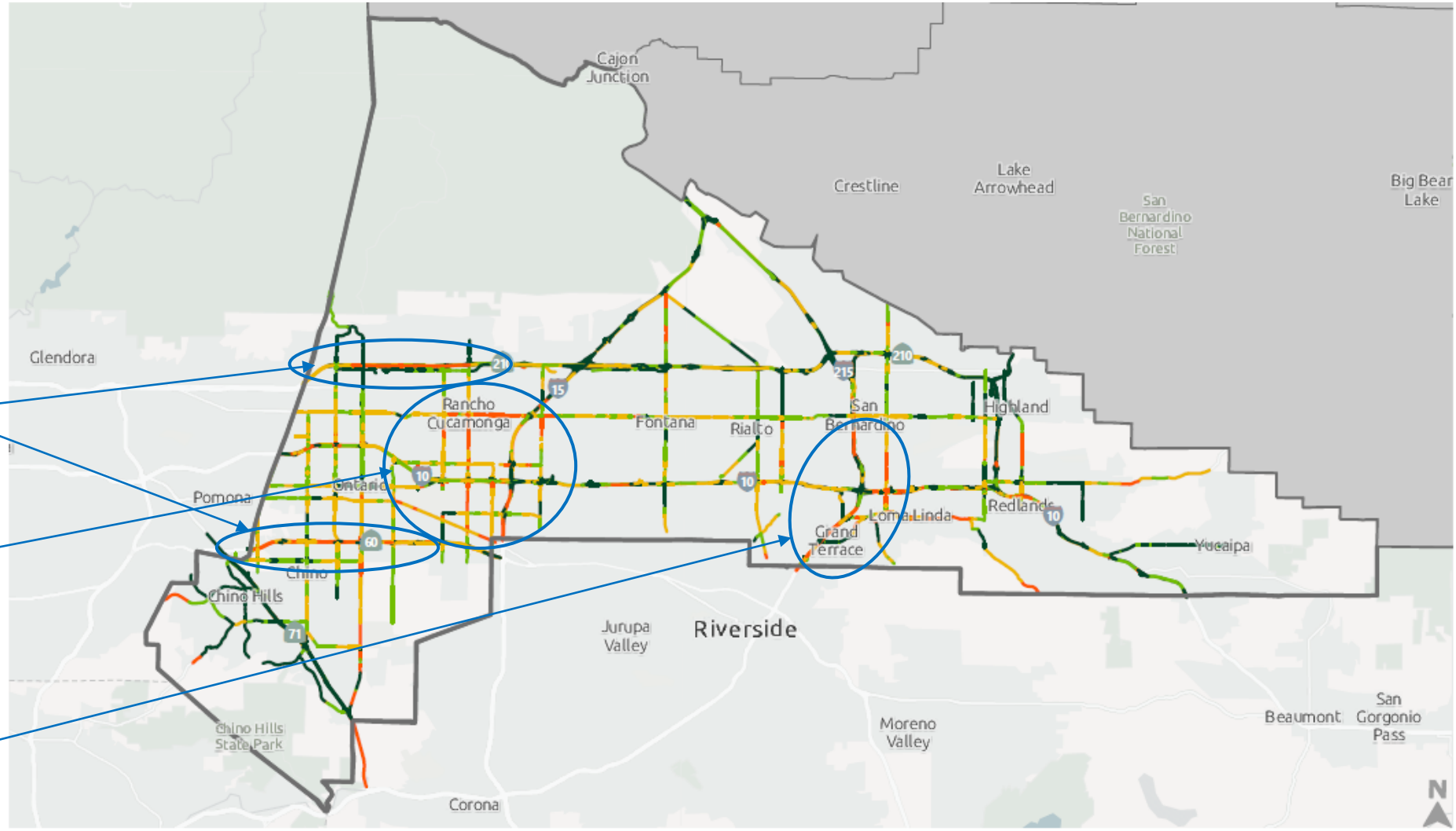

Figure 1B

Virtual Future Delay Forecast, Valley Area

- Congestion hotspots are reduced

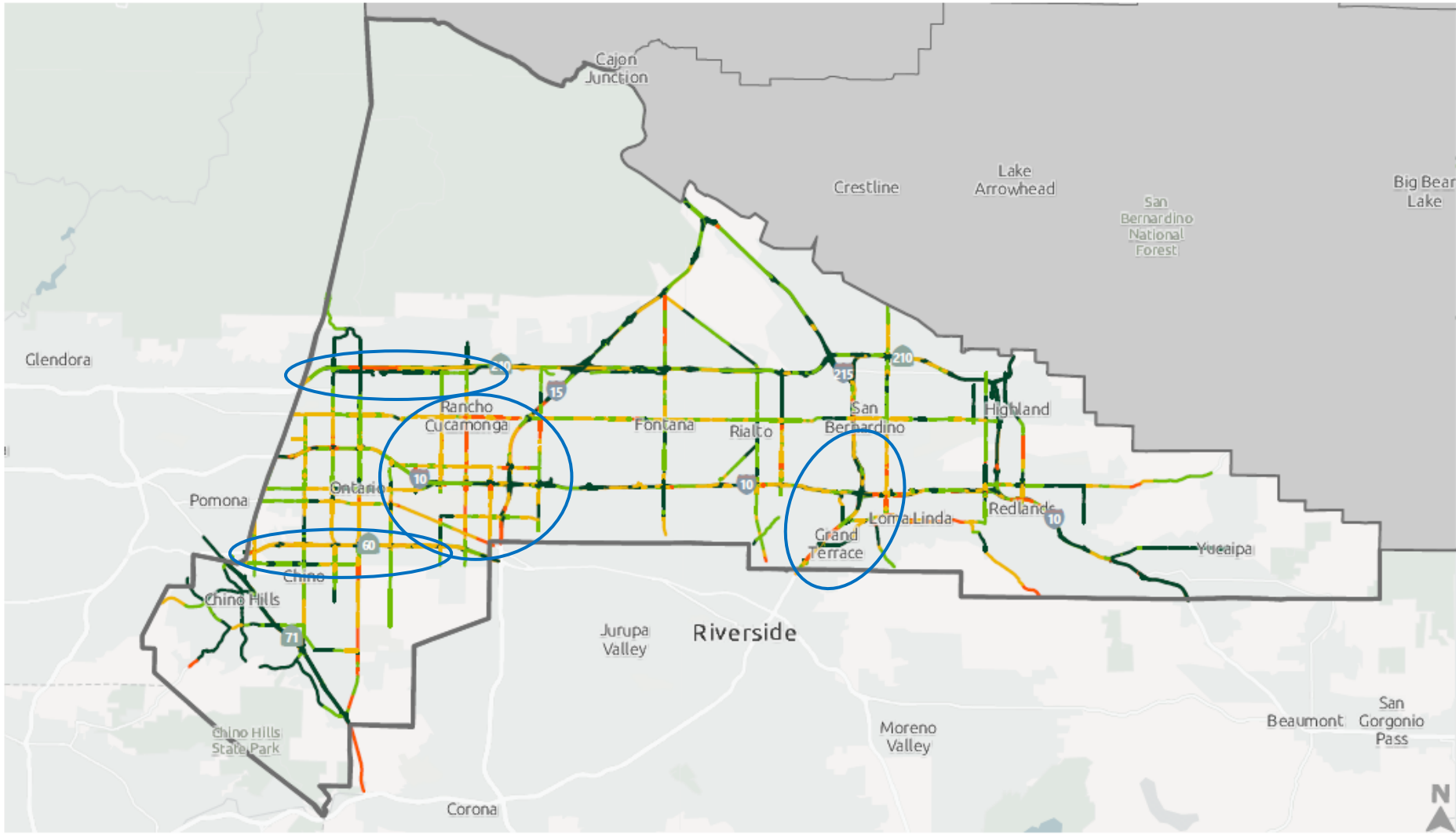

Figure 2B

Smart Growth Delay Forecast, Valley Area

Shortens congested area on SR-210

Increased congestion around Rancho Cucamonga station

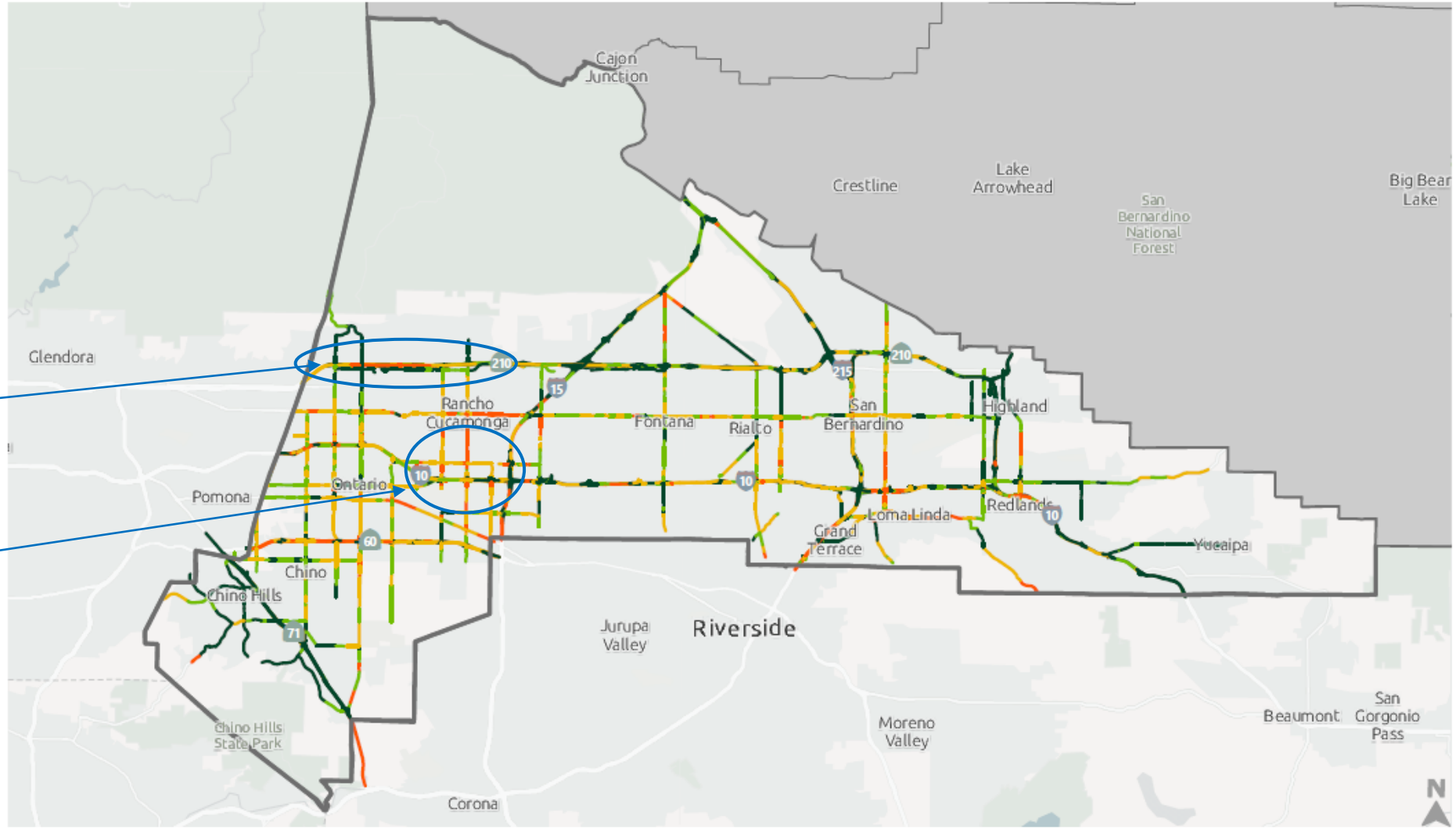

Figure 3B

Key Findings

- While changes in demand contexts can affect certain measures, overall impacts on vehicle travel are minimal
  - Telecommuting reduces delay, but also transit ridership
  - Reallocating growth boosts transit ridership but does not meaningfully reduce VMT
- Congestion hotspots that exist in all scenarios show projected system bottlenecks
  - State Route 210 in the West Valley
  - Rancho Cucamonga/Ontario International Airport

Next Steps

- Finalize priority area analyses
- Apply scenario planning process to network enhancements
- Review results, assess gaps and opportunities to prioritize improvements
- Next round of public engagement in early summer 2024

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