

2021 SACOG Travel Demand Model User Conference

Session 2: SB 743 & VMT Analysis



March 9, 2021

Mari Salazar, Transportation Analyst

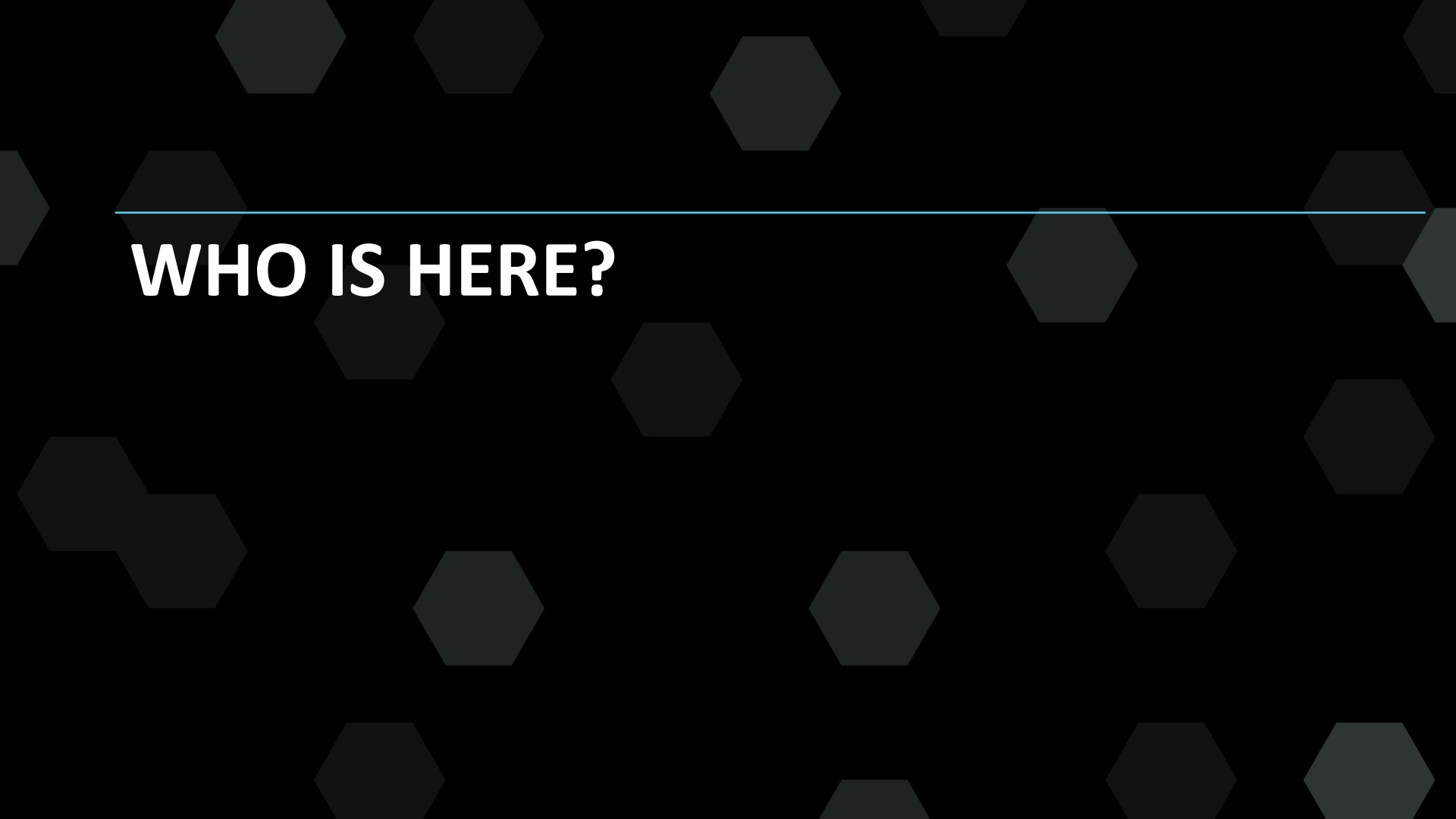
Cameron Shew, P.E., T.E., Senior Civil Engineer, County of Sacramento

Bruce Griesenbeck, Data and Analysis Team Manager



Agenda

- Who is here?
- Introduction to SB 743
- SB 743 Local Agency Working Group Update
- SACOG Resources Update
 - SACSIM & VMT
 - Big Data & VMT
- Continued Support
- Wrap up



WHO IS HERE?

Introduction to SB 743

- Passed in 2013
- Changes to CEQA transportation analysis
- LOS-> VMT
- Lead agency implementation June 2020



SB 743 Local Agency Working Group

- Regional forum
- Technical Assistance
- Collaboration



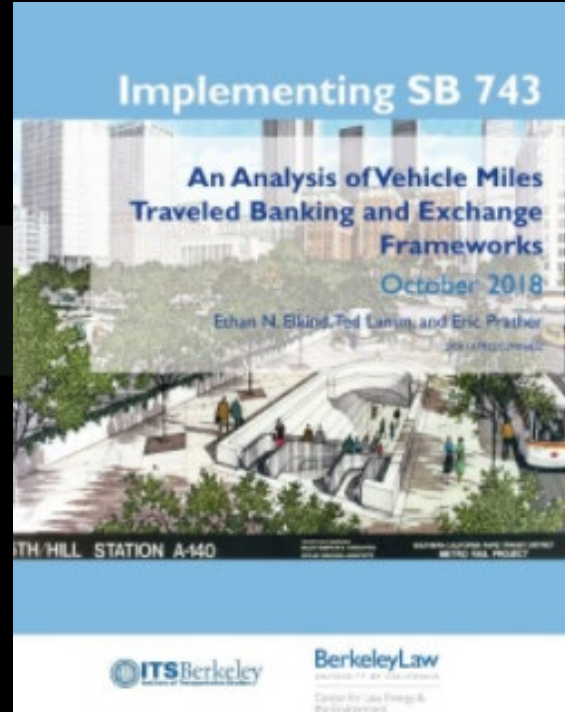
SB 743 Implementation Tools



- Existing tools, models and resources
- VMT estimation methodologies
- Minimum project size for VMT analysis
- TDM for VMT analysis
- Mitigation measures

Mitigation Programs Feasibility Study

- Submitted application (not awarded)
- Applicability to local jurisdictions in the SACOG region



Local Agency Perspective

SACRAMENTO COUNTY SB 743 IMPLEMENTATION



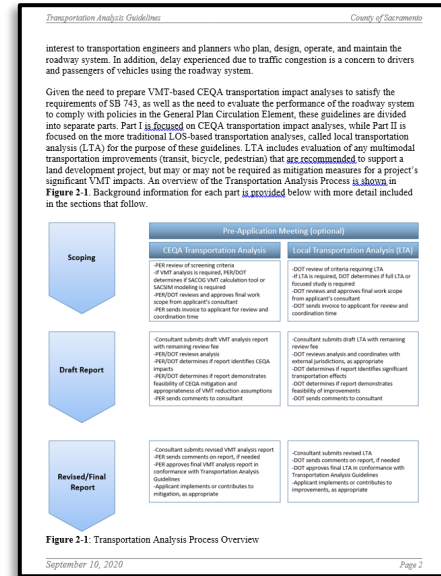
Local Agency Perspective on SB 743 Implementation

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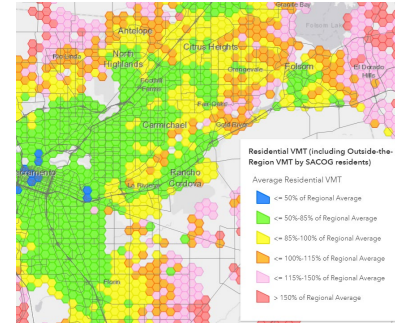
Path to Implementation

- Local Agency Working Group (LAWG)
 - 2019 - ongoing
- Updated Transportation Analysis Guidelines (TAG)
 - March - June 2020
- Planning Commission Approval
 - June 2020
- Board Approval
 - October 6, 2020



Screening Criteria

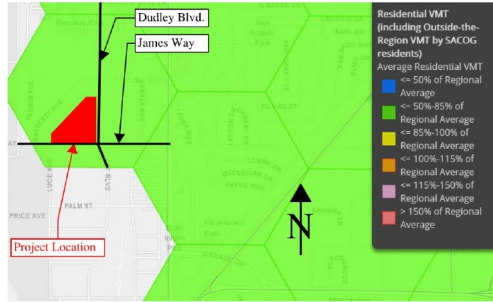
1. Small Projects
2. Local Serving Retail
3. Local Serving Public Facilities/Services
4. Projects in VMT Efficient Areas
5. Projects near Transit Stations
6. Affordable Residential Projects



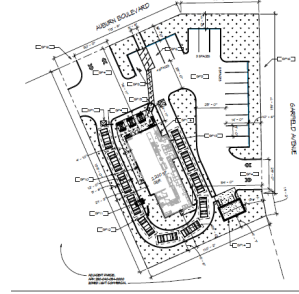
Public, Civic, and Institutional Uses		Project Type
A. Assembly Uses		
1. Places of Worship or Other Religious Institution		RPFS
2. Private Social Center, Social Club, Fraternal Hall/Lodge		RPFS
B. Educational and Cultural Uses		
1. Art Gallery, Art Studio		RET
2. College, University		RPFS
3. School, Private		RPFS
4. School, K-12, Public		LPFS
5. School, K-12, Private		RPFS
C. Government Uses		
1. Government and Local Agency Buildings and Uses		LPFS or RPFS ⁵
D. Parks and Open Space		
1. Cemetery		RPFS
2. Community Garden		LPFS
3. Public Park		LPFS or RPFS ⁵
4. Wildlife Preserve		LPFS or RPFS ⁵
5. Market Garden		LPFS
E. Social Care Uses		
1. Ambulance Service		LPFS
2. Adult Day Care Center		LPFS
3. Child Day Care Center		LPFS

Commercial Uses		Project Type
A. Commercial Service Uses		
1. Animal and Pet Services		RET
2. Business Services		RET
3. Personal Services		RET
4. Repair Services		RET
B. Eating/Drinking Uses		
1. Bar/Tavern		RET
2. Catering Service		RET
3. Restaurant, Carry-out/Drive-through/Sit-down		RET
4. On-Sale Alcoholic Beverages		RET
C. Entertainment / Recreation Uses		
1. General Recreation Facility, Indoor		RPFS ⁵
2. General Recreation Facility, Outdoor		RPFS ⁵
3. Driving Range		RPFS ⁵
4. Adult Business		RET
5. Arcade, Electronic, Mechanical, Video Games, or Computer Gaming Center		RET
6. Boat Dock, Private		LPFS
7. Campground		RPFS
8. Card Room		RPFS
9. Dancing in a Bar or Restaurant, Incidental		RET

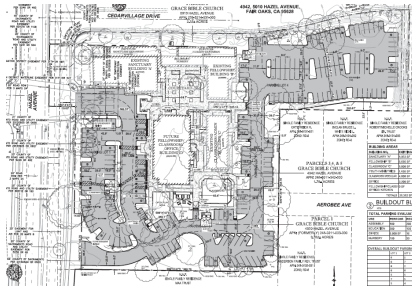
Implementation Examples: Screening



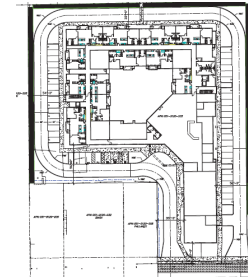
Low VMT Area



Locally-Serving Retail



Small Project



Locally-Serving Public Facility/Service

- Checklist
 - Net change threshold
 - Large projects/plan areas
 - Project inconsistent with model assumptions
 - Significant roadway component

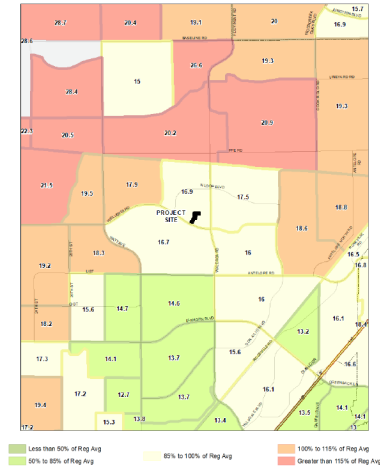
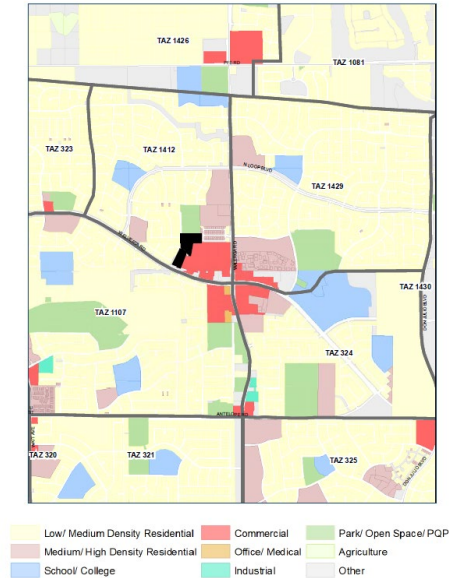
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- ITE Trip Generation
 - Adjustments (e.g. internal trip reductions)
 - Tour Lengths from Model
- Metrics by TAZ as Proxy for Development

- [illegible]

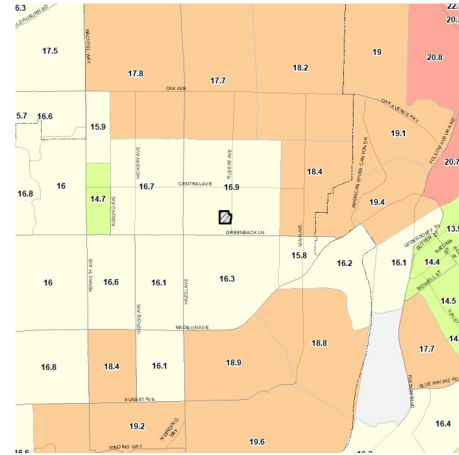
Implementation Example: 73 unit project

FIGURE 1: TRAFFIC ANALYSIS ZONE 1412 PREDOMINANT LAND USE



RESIDENTIAL LAND USE TYPE	# OF UNITS	ESTIMATED POPULATION	ESTIMATED VMT/CAPITA	% OF REGIONAL AVERAGE
VERY LOW DENSITY RESIDENTIAL	9	31	22.6	128%
LOW DENSITY RESIDENTIAL	780	2,775	17.4	99%
MEDIUM DENSITY RESIDENTIAL	540	1,973	17.2	98%
MEDIUM-HIGH DENSITY RESIDENTIAL	529	1,740	15.9	90%
TOTAL TAZ 1412	1,858	6,519	16.9	96%

Source: SACSIM19 2016 Model, DKS Associates

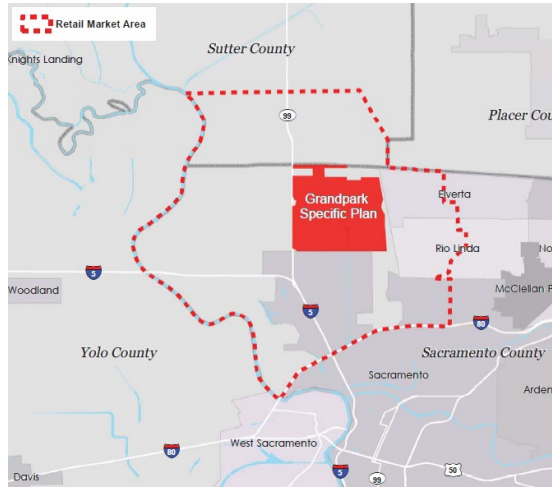


Approach to Mitigation

- Larger Projects: CSA10 benefit zone to fund trip-reducing services/programs
 - Shuttle and transit services
 - Vanpool/carpool program
 - Guaranteed ride home
 - Bike/transit subsidies
 - Telecommuting/educational programs
 - Transportation coordinator
 - TMA membership to provide above
- Smaller Projects: currently exploring programmatic approaches
 - VMT impact fee program
 - VMT mitigation bank

	Existing Zone No. 3 Boundary Estimated Expenditures
Direct Costs	
Management	
General Administration	\$ 140,030
Market Research/Survey	\$ 20,000
Marketing	10,200
Subtotal	\$ 170,230
Programs	
Community Shuttle	\$ 171,850
Car Sharing	20,650
Transit Pass Subsidy	43,400
Bike Subsidy	35,280
Interactive Kiosk	18,620
Walk to School	1,120
Subtotal	\$ 290,920
Total Transportation Services	\$ 461,150
District Administration Costs	
CSA Administration ¹	\$ 10,000
County Tax Roll Levy Fee ²	23,900
Total District Administration Costs	\$ 33,900
Total Levy	
Total Expenditures	\$ 495,050
Contingency Fund Activity ³	133,577
Balance to Levy	\$ 628,627
Parcel Statistics	
Total Estimated Parcels Levied	4,480
Total Estimated Equivalent Dwelling Units (EDU)	6,321.67
Levy per EDU	\$99.44
Maximum Levy per EDU (FY 2015/16)	\$99.44

Implementation Example: Unique Approach



Specific
Plans



SMF Master Plan
Update

Early Experience

- SB 743 has not significantly reduced our analysis burden
- Many residential projects that were below thresholds for traffic analysis now have significant VMT impacts
- Mitigating impacts difficult to impossible without a programmatic approach
- Screening is working for small projects and locally-serving retail, service, and public facilities
- New data sources
- Ongoing Challenges
 - Events
 - Cumulative Analysis
 - Transportation Projects
 - Caltrans Facilities and Safety Practitioners Guidance

Questions & Discussion

SACSIM Model & VMT Analysis

- Follow-up on commitments made last year
- Spotlight on a couple of resources
- Discussion on Big Data & VMT

SB 743 & VMT Follow-ups from 2020

- ✓ VMT per capita map—screening resource*
- ✓ Transit priority area map—updated to new state definitions*
- ✓ Methodology to account for external VMT**
- ✓ Update CALEEMOD average trip lengths

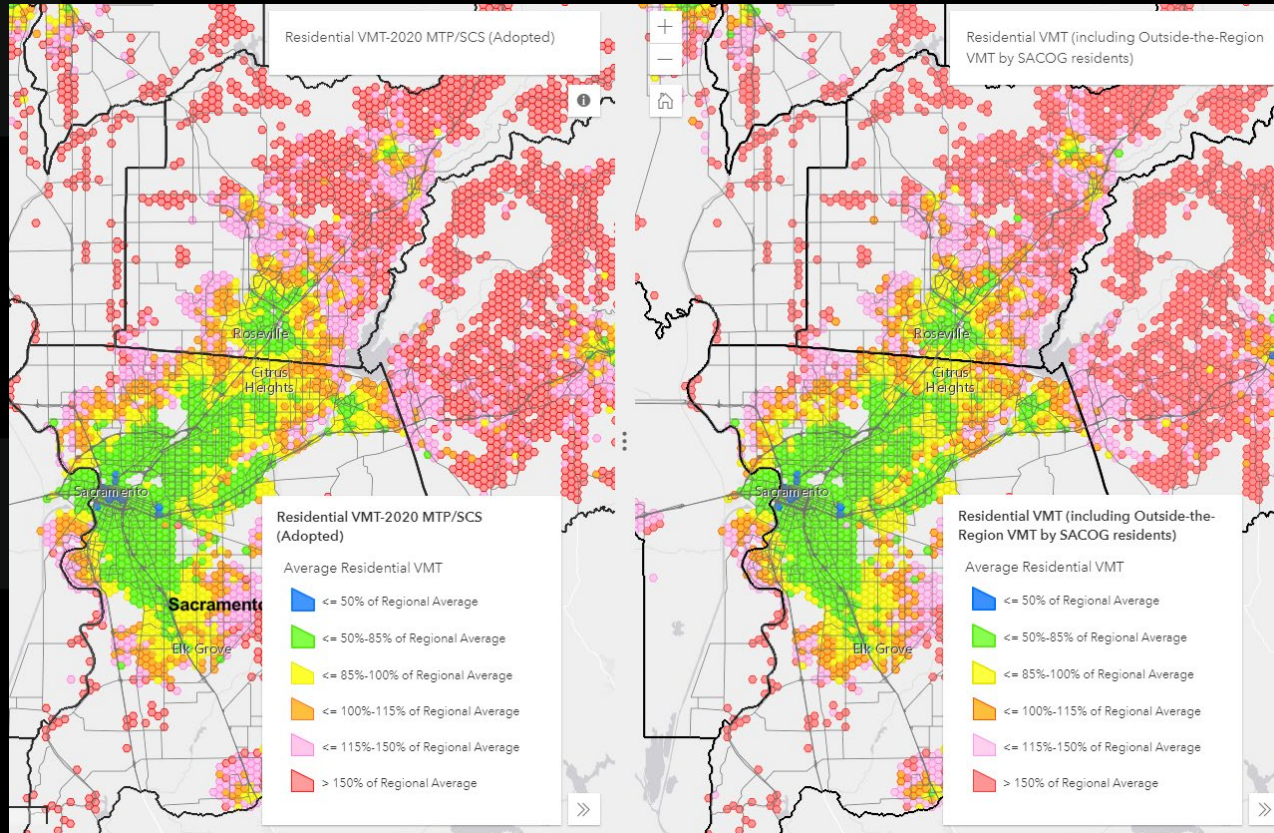
Other Items from 2020

- Streamline SACSIM parcel, population files—some progress—Session 5 for details
- < 4 year updates of SACSIM base year—no progress
- Project VMT spreadsheet—no progress
- Bring SACMET into maintenance—no progress

VMT per Capita Maps

- Maps generated from tour-based, household-generated VMT (per OPR guidance)
- Worker VMT per job map
- Versions w/ and w/out external VMT
- External VMT based on inter-regional travel data from Replica platform
 - Responsive to OPR guidance on “truncation”

Downloadable from ODP



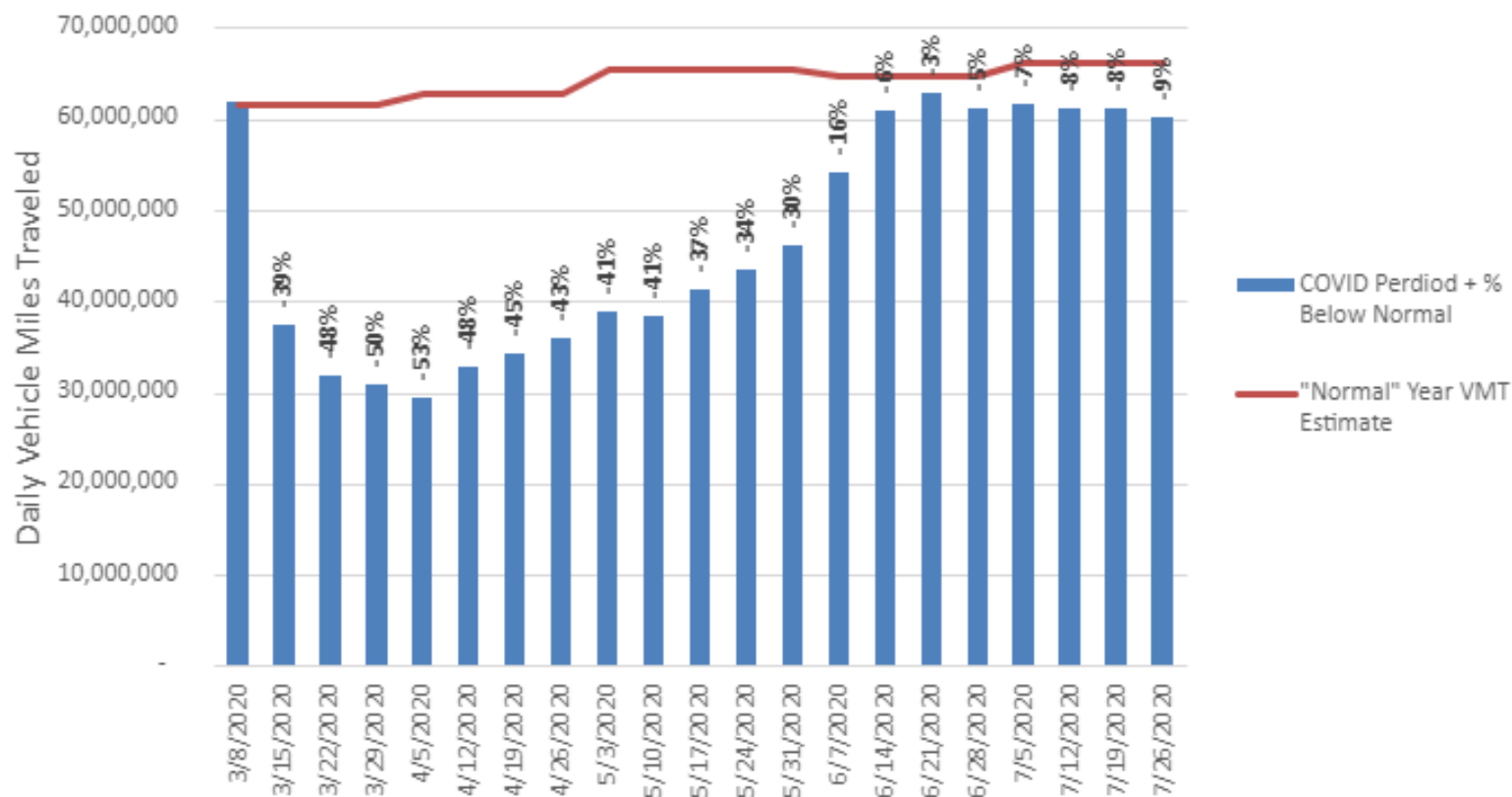
Big Data and VMT

- COVID & SIP orders—things change
- Number of free big data sources offered
 - Streetlight Data “VMT Monitor”
 - Google Mobility Data
- Replica Places—available through “Big Data for Transportation Planning Pilot”

Streetlight VMT Monitor

- Partnership of Streetlight & Cubiq
- Estimate of the VMT generated by current residents of a county
- Baseline VMT for each county (pre-COVID 2020)
- Device data used to track change in distance traveled from baseline
- SACOG adapted this for tracking VMT in SACOG region

Vehicle Miles Traveled in Sacramento Region During COVID Period



Google Mobility

- Baseline (January 2020)
- Device data used to track change in:
 - Time spent at residences
 - Visits to non-residential places
- Continues to be offered free

El Dorado County

Retail & recreation

-8% compared to baseline



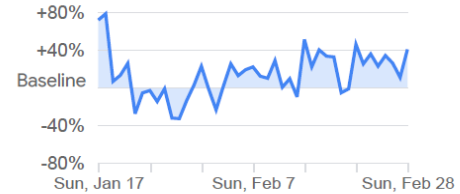
Grocery & pharmacy

-10% compared to baseline



Parks

+41% compared to baseline



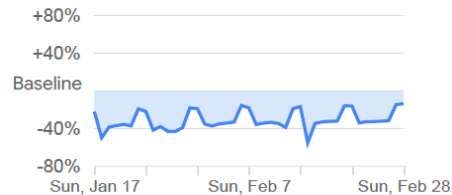
Transit stations

-14% compared to baseline



Workplaces

-14% compared to baseline



Residential

+4% compared to baseline



* The data doesn't meet quality and privacy thresholds for every day in the chart.

Replica

- Data platform provides query-able, quarterly “snapshots” of travel to, from & within SACOG region
- Data synthesized using device, point of purchase, and ground count data (Session 4 for more details)
- Platform available to SACOG through end of 2021

What has all this Big Data told us?

- Pretty consistent on the overall changes in travel through COVID period:
 - Replica:
 - Spring '20: household-generated VMT per capita -38%
 - Summer '20: climbed back to 7% below pre-COVID
 - Google Mobility
 - March '20: Time at residence +13%; visits to workplace -39%
 - February '21: Time at residence +3%; visits to workplace -15%
 - Streetlight VMT Monitor
 - April '20: 53% drop in VMT from pre-COVID
 - July '20: climbed back to 9% below pre-COVID

Potential SB 743 applications

- Accounting from external VMT
- VMT per capita maps for screening
 - One application in SACOG region already
- Baseline updates
 - Changes in VMT from model base years
- Mitigation monitoring?

Under Consideration for 2021

- LAWG: Programmatic VMT Mitigation
- VMT per Capita Maps: Add guidance on their use?
- Big data applications (VMT maps, baseline adjustments)
- Other ideas—we'd like to hear from you

Questions & Discussion

Session 3

Is it 2024 yet? Planning for the future



Thank you for joining us!

Any questions please contact

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