

Modeling and Data Support to SB743 Implementation

SACOG 2020 Travel model user conference workshop

Agenda

- **Quick Around**
 - Name, Agency, Knowledge of SB743, expectations of the workshop

- **OPR's technical advisory**
 - Screen criteria
 - VMT analysis tools and methodology

- **SACOG's modeling and data support to SB743 implementation**
 - Thresholds
 - Screen maps
 - Average trip length
 - Modeling

- **Q & A**



Initial Screening - Less Than Significant Impact on Transportation

1. Residential Project

15% below Region's or City's Residential VMT per capita

2. Office Project

15% below Region's commute VMT per employee

3. Near TOD

4. Local-serving Retail

5. Project size – generate less than 110 trips

OPR's technical advisory

Methodology

- Regional/local travel models (tour or trip based), tour based is ideal
- Sketch planning tools

Consistency

- Threshold determination
- Project Assessment
- Project Mitigation

Committed SB 743 Support

- VMT (screening) map
- Transit priority area geography (end of March)
- Fix to SACSIM19—estimating “outside of region” VMT (end of June)
- Regional trip lengths (CALEEMOD, project level VMT estimates) (end of April)

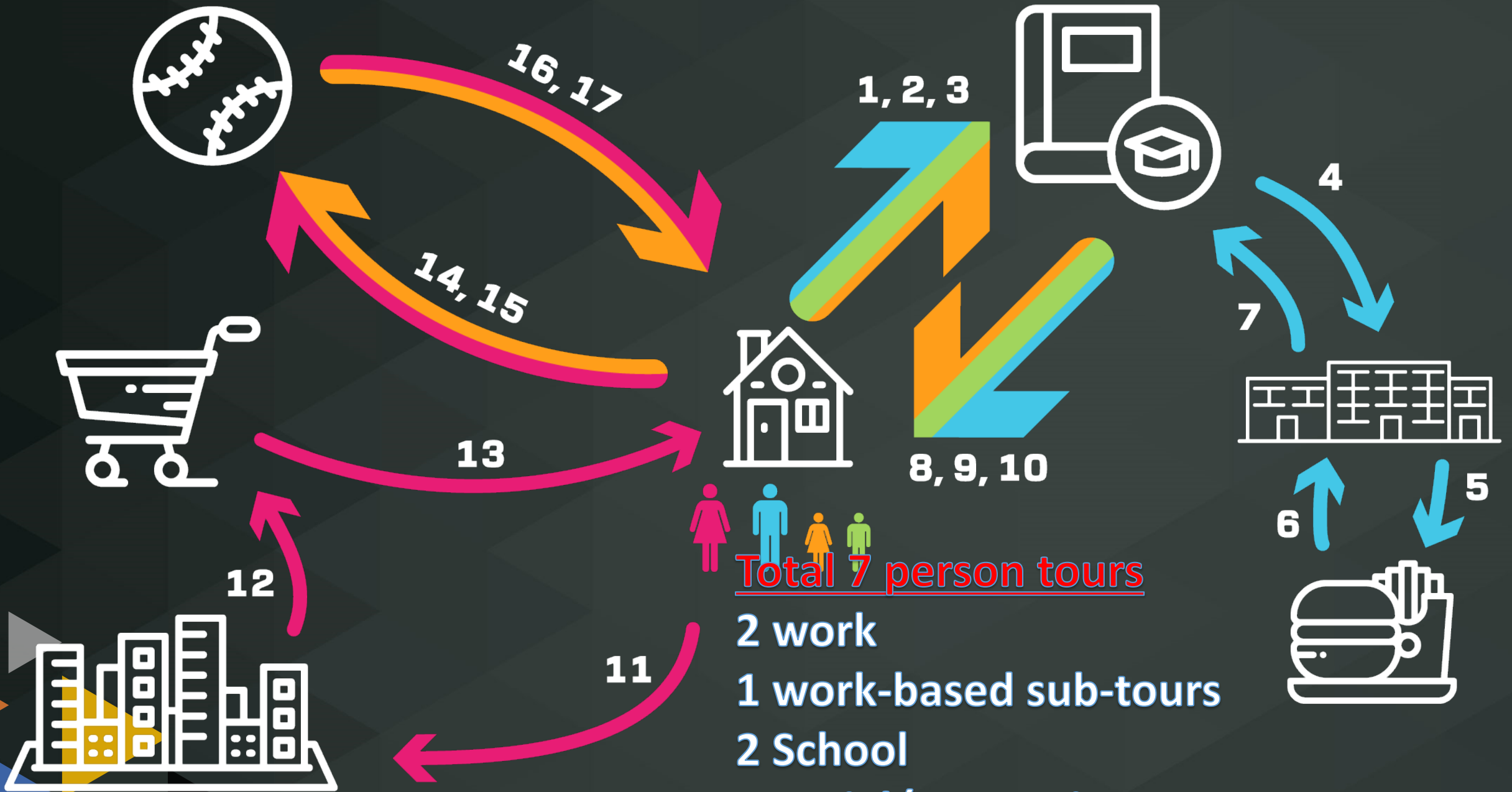
Under Consideration SB 743 Support

- SACSIM streamlining 1: parcel file preparation
- SACSIM streamlining 2: population file preparation
- SACSIM streamlining 3: user interface and speed
- Less-than-4-year updates of base year
- Project-level VMT spreadsheet “template”
- SACMET: bring it back into maintenance

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Screening Maps

- ❖ Draft Available on [open data portal](#)
- ❖ Threshold based on regional average
 - ❖ Request for maps by jurisdictional average
- ❖ Geography – Hexgon (can be TAZ, if recommended by Local Working Group)
 - * Hexgon is manageable for online mapping rendering
- ❖ VMT GIS layer available by [request](#)



Total 7 person tours

- 2 work
- 1 work-based sub-tours
- 2 School
- 2 Social/Recreation

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Accounting for VMT "outside the region"

Issue with Residential Screening Map

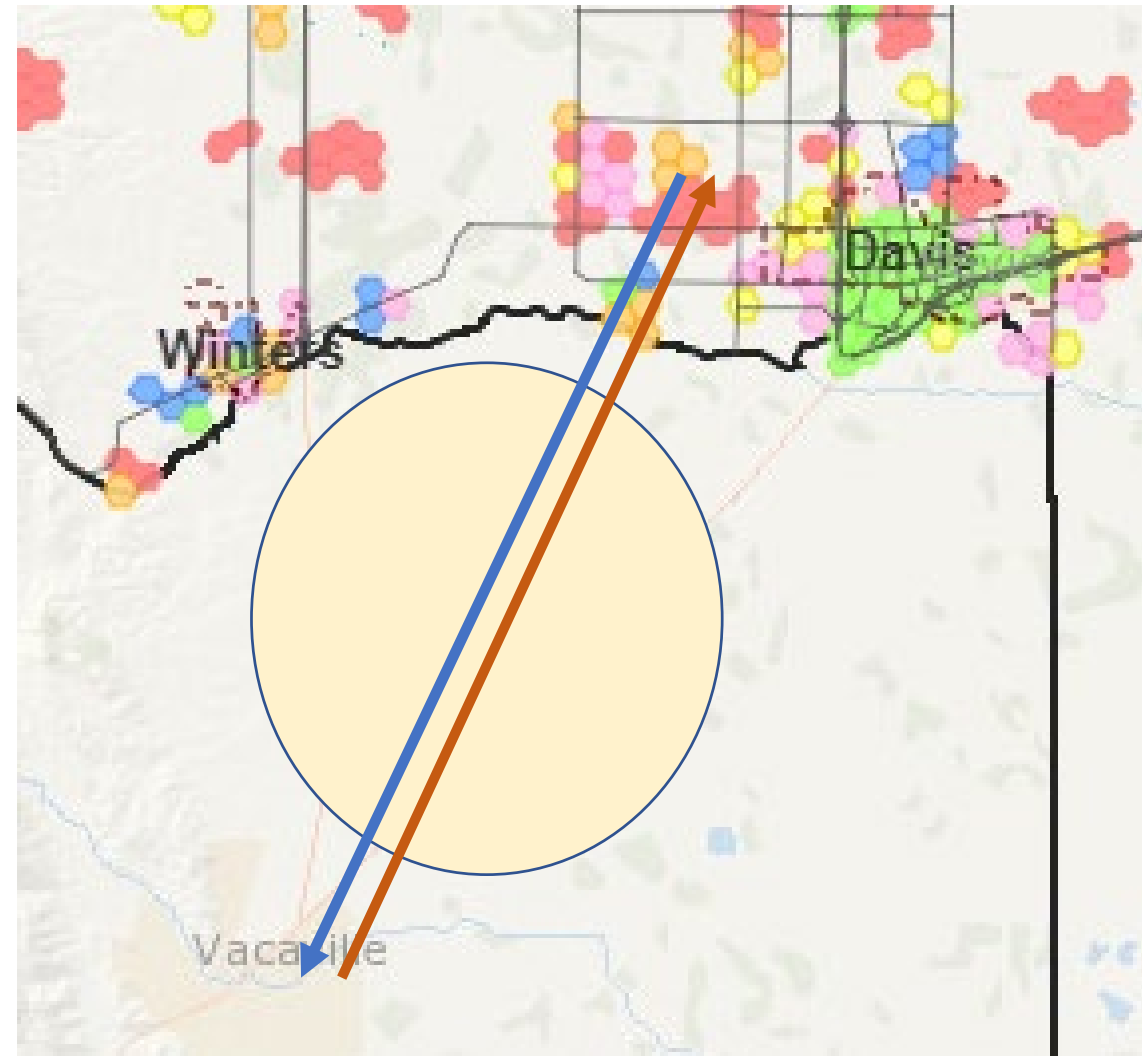
- ❖ *What not accounted – VMT traveled outside SACOG region*
- ❖ *How much -*
Methodology by June 2020

Note:

CEQA requires

"good faith effort at full disclosure."

Do so "where methodologies exist"



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Screening Maps – VMT Computation

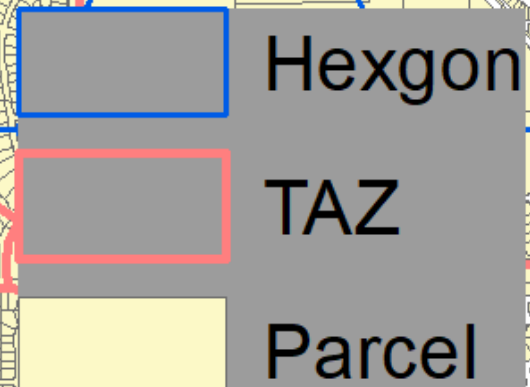
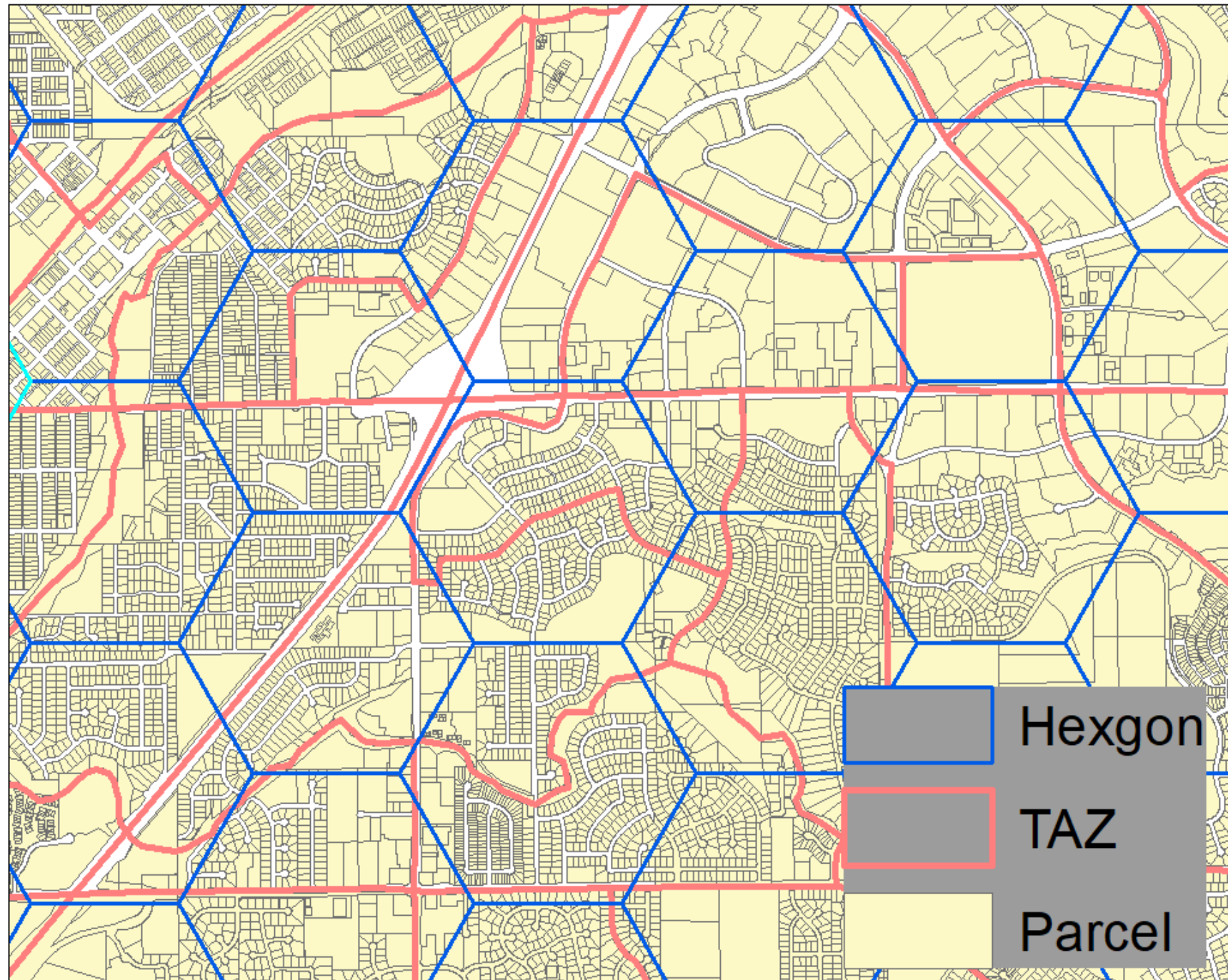
					Household Generated (Home location)			48		
					Commute	Location 1		20		
						Location 2		12		
trip#	hhID	personID	tourID	tourHalf	tripID	Origin	Dest	Mode	Dist	VMT
11	1	1	1	1	1	Home	Work	DA	10	10
12	1	1	1	2	1	Work	Shop	DA	7	7
13	1	1	1	2	2	Shop	Home	DA	3	3
5	1	2	1	1	1	work	Food	walk	0.5	-
6	1	2	1	2	1	Food	work	walk	0.5	-
1	1	2	1	1	1	Home	School	SH3	3	1
4	1	2	1	1	2	School	Work	DA	5	5
7	1	2	1	2	1	Work	School	DA	5	5
10	1	2	1	2	2	School	Home	SH3	3	1
3	1	3	1	1	1	home	school	SH3	3	1
8	1	3	1	2	1	school	home	SH3	3	1
2	1	4	1	1	1	home	school	SH3	3	1
9	1	4	1	2	1	school	home	SH3	3	1
14	1	1	2	1	1	home	Socil/Re	SH2	6	3
15	1	1	2	2	1	Socil/Re	Home	SH2	6	3
16	1	3	2	1	1	home	Socil/Re	SH2	6	3
17	1	3	2	2	1	Socil/Re	Home	SH2	6	3

Screening Map Geographies

Parcel

Hexgon

TAZ



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Screening Maps

What VMT accounted, what are not

- Residential/Household Generated – everything tallied to HOME (residence locations)
 - Denominator for per capita – all people
 - Un-counted – VMT traveled outside the region by SACOG residents
- Commute/Work related – only work tours, tallied to JOB locations
 - Denominator for per employee – Jobs available for internal workers
 - SACSIM estimate the proportion of jobs taking by external workers
 - VMT outside the region are not relevant for office project
 - **From Day 1: work VMT maps tend to be chaotic—OPR will participate in a dialog on options for modifying the map—SACOG will follow up.**

Committed SACOG's Support

Screening Maps

Screen map using any other sub-area threshold

By REQUEST sacsim@sacog

Screen map by TAZ geography

If Local Working Group recommend

Post-Processes to compute VMT from model output tour/trip table

- Update the trip distance using the distance from global last iteration
- Compute VMT made by residents to outside the region but cut at region border
- Hands training available by request sacsim@sacog

Committed SB 743 Support

- VMT (screening) map - Available by Hex, TAZ later, threshold by sub-areas by request
- Transit priority area geography (end of March)
- Fix to SACSIM19—estimating “outside of region” VMT (end of June)
- Regional trip lengths (CALEEMOD, project level VMT estimates) (end of April)

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Transit priority area geography (end of March)

Include the following in addition to what's in TIP—change in definition in statute:

- ❖ New light rail stations outside the **TIP**, but inside the **MTP** time horizon
- ❖ Any bus rapid transit stations (that meet the definition below) inside the MTP time horizon
- ❖ Any intersection of two high frequency bus stops that meet that definition after the TIP, but before the MTP time horizon

TPA bill:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1824

Major transit stop bill:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1560

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Under Consideration SB 743 Support

SACSIM streamlining 1: parcel file preparation

- ❖ Assemble data variable from multiple sources
- ❖ Buffering is the bottleneck
- ❖ Not worth to streamlining ?? (buffer methodology may change)
- ❖ Willing to provide hands on training
- ❖ From Day 1: User Guide is top priority

Under Consideration SB 743 Support

SACSIM streamlining 2: population file preparation

- ❖ Seeking for new population synthesizer - in plan
- ❖ Uncertain - Process to prepare the inputs and post-processing the outputs
- ❖ Minimum - better documentation and hands-training
- ❖ From Day 1: User Guide is top priority.



Questions
Comments
Suggestions

