Mono County
Local Transportation Commission

PO Box 347
Mammoth Lakes, CA 93546
760.924.1800 phone, 924.1801 fax
commdev@mono.ca.gov

PO Box 8
Bridgeport, CA 93517
760.932.5420 phone, 932.5431 fax
www.monocounty.ca.gov

MEETING AGENDA

June 13, 2022 – 9:00 A.M.

SUITE Z and Zoom

437 Old Mammoth Road (above the Vons Starbucks), Mammoth Lakes, California

This meeting will be held in person and via teleconferencing, and members of the Commission may attend from separate, remote locations. As authorized by AB 361, dated September 16, 2021, a local agency may use teleconferencing without complying with the teleconferencing requirements imposed by the Ralph M. Brown Act when a legislative body of a local agency holds a meeting during a declared state of emergency and local officials have recommended or imposed measures to promote social distancing.

Members of the public may participate in person and via the Zoom Webinar, including listening to the meeting and providing comment, by following the instructions below.

TELECONFERENCE INFORMATION

1. Joining via Zoom

You may participate in the Zoom Webinar,including listening to the meeting and providing public comment, by following the instructions below.

To join the meeting by computer

Visit: https://monocounty.zoom.us/j/82782386235

Or visit https://www.zoom.us/ and click on "Join A Meeting." ***Use Zoom Meeting ID*:** 827 8238 6235

To provide public comment (at appropriate times) during the meeting, press the "**Raise Hand**" hand button on your screen and wait to be acknowledged by the Chair or staff.

To join the meeting by telephone

Dial (669) 900-6833, then enter ***Webinar ID***: 827 8238 6235

To provide public comment (at appropriate times) during the meeting, press *9 to raise your hand and wait to be acknowledged by the Chair or staff.

2. Viewing the Live Stream

You may also view the live stream of the meeting without the ability to comment ***by visiting***:
http://monocounty.granicus.com/MediaPlayer.php?publish_id=8eb949e8-01de-46de-810d-3c22a854becd

1. CALL TO ORDER & PLEDGE OF ALLEGIANCE

2. PUBLIC COMMENT: Opportunity to address the LTC on items not on the agenda. Please refer tothe Teleconference information section to determine how to make public comment for this meeting.

3. CONSENT AGENDA ITEMS

a) Approval of minutes from May 9, 2022 (pg. 1)

4. ADMINISTRATION

a) Resolution of Appreciation for Gerry LeFrancois (pg. 4)

5. LOCAL TRANSPORTATION

a) FY 22-23 State Transit Assistance (STA) allocation consideration and approval by Resolution 22-06 *(Deanna Tuetken)* (pg. 5)
b) FY 22-23 Local Transportation Funds (LTF) allocation consideration and approval by Resolution 22-07 *(Deanna Tuetken)* (pg. 16)
c) Consider authorizing Chair to sign Audit Engagement Letter for fiscal year ending on June 30, 2022 *(Deanna Tuetken)* (pg. 21)
d) Discussion of California Transportation Assessment Report Pursuant to AB 285 (Commissioner Kreitz, Bentley Regehr) (pg. 31)

6. CALTRANS

a) Update on Caltrans activities in Mono County *(Caltrans staff)*

7. MONO COUNTY

a) Workshop on the Mono County Resource Efficiency Plan, greenhouse gas emissions inventory update and CEQA streamlining, and Vehicle Miles Traveled CEQA thresholds *(Bentley Regehr)* (pg. 85)

8. TRANSIT

a) ESTA Update *(Phil Moores)* (pg. 226)
b) YARTS Update *(Christine Chavez)*

9. CORRESPONDENCE (pg. 228)

10. REPORTS

a) **Director**
b) **Commissioners**

11. INFORMATIONAL

12. UPCOMING AGENDA ITEMS

a) Update on transportation/trails projects from Eastern Sierra Council of Governments
b) Update on Successor MOU agreement, meeting with Kern COG staff

13. ADJOURN TO DATE- July 11, 2022, at 9:00

***NOTE: Although the LTC generally strives to follow the agenda sequence, it reserves the right to take any agenda item – otherthan a noticed public hearing – in any order, and at any time after its meeting starts. The Local Transportation Commission encourages public attendance and participation.**

In compliance with the Americans with Disabilities Act, anyone who needs special assistance to attend this meeting can contact the commission secretary at 760-924-1804 within 48 hours prior to the meeting in order to ensure accessibility (see 42 USCS 12132, 28CFR 35.130).

COMMISSIONERS

Jennifer Kreitz John Peters Rhonda Duggan John Wentworth Bill Sauser Dan Holler

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Draft Minutes

May 9, 2022 – 9:00 A.M.

COUNTY COMMISSIONERS: Jennifer Kreitz, John Peters, Rhonda Duggan

TOWN COMMISSIONERS: Bill Sauser, Dan Holler

COUNTY STAFF: Gerry LeFrancois, Haislip Hayes, Heidi Willson, Bentley Regehr, Wendy Sugimura, Michael Draper, Deanna Tuetken

CALTRANS: Dennee Alcala, Jacob Burkholder

ESTA: Phil Moores

Public: John Armstrong, John

1. CALL TO ORDER & PLEDGE OF ALLEGIANCE- Vice Chair Peters called the meeting to order and Commissioner Kreitz lead the Pledge of Allegiance.

2. PUBLIC COMMENT: Opportunity to address the LTC on items not on the agenda. Please refer tothe Teleconference information section to determine how to make public comment for this meeting.

- No Public Comment

3. CONSENT AGENDA ITEMS

a) Approval of minutes from April 11, 2022, special meeting
b) Approval of minutes from April 11, 2022, regular meeting

Motion: Approve minutes of special meeting April 11, 2022, and regular meeting April 11, 2022.
Duggan motioned; Kreitz seconded.
Roll Call- Ayes: Kreitz, Holler, Duggan, Peter. Motion carries 4-0 with 2 absent.

Commissioner Sauser joined the meeting at 9:06 am while Gerry was presenting

2. ADMINISTRATION

a) Review and adopt LTC handbook / by-law changes by Minute Order 22-05 *(Gerry LeFrancois)*

- LeFrancois gave a presentation and answered questions from the commission.

Motion: Approval of Minute Order 22-05
Kreitz motioned; Duggan seconded.
Roll Call- Ayes: Sauser, Kreitz, Holler, Duggan, Peter. Motion carries 5-0.

b) Appoint Wendy Sugimura the new Co-Executive Director from Mono County upon the retirement of Gerry LeFrancois by Minute Order 22-04 *(Gerry LeFrancois)*
Motion: Appoint new Co-Executive Director Wendy Sugimura.
Holler motioned; Kreitz seconded.
Roll Call- Ayes: Sauser, Kreitz, Holler, Duggan, Peter. Motion carries 5-0.

3. LOCAL TRANSPORTATION

a) 2022/23 Overall Work Program consideration and approval by Minute Order 22-05 *(Bentley Regehr)*
- Regehr gave a presentation and answered questions from the commission.
- Commissioner Kreitz raised concerns from last meeting regarding Work Element 200.3 Multi-Modal Planning, which includes the county and perhaps shouldn't because the work is specific to the town. She mentioned the description should be explicit or it could cause problems with the grant. Commissioner Kreitz requested the word "county" be stricken.
- Commissioner Kreitz also raised concerns about the Town of Mammoth Lakes' mobility hub study (in WE 200.3) being in the OWP since information was provided at the last meeting that the study had already taken place. She requested more information and responses regarding micro-buses/transit. Haislip Hayes from the Town and Phil Moores from ESTA responded.
- The Commission discussed WE 200.3. The point was made that the WE may include connections from the incorporated Town into the unincorporated county, and therefore retaining "county" in the description was acceptable.
- At least three Commissioners supported retaining "county" in the description of WE 200.3.

Motion: Approval of Minute Order 22-05 with the Mobility Hub Study removed from the budget.
Holler motioned; Sauser seconded.
Roll Call- Aye: Sauser, Holler, Peter. Nay: Kreitz, Duggan. Motion carries 3-2.

b) Discuss Successor Agreement to the Memorandum of Understanding on State Route 14 and US 395 *(Bentley Regehr)*
- Regehr gave a presentation and answered questions from the Commission.
- Commissioner Holler asked if the money would be able to be used for other projects?
- LeFrancois answered yes, it could be used for other projects.
- Commissioner Sauser asked what are the actual chances of getting the money back?
- LeFrancois answered that there is a benefit to at least ask.
- Commissioners requested a meeting with Kern COG to review the process. Commissioner Peters volunteered.

c) Unmet Transit Needs: review analysis, take public input, and consider adoption of Resolution 22-04 (*Michael Draper)*
- Draper gave a presentation and answered questions from the commission.

Motion: Approve Resolution 22-04.
Kreitz motioned; Duggan seconded
Roll Call- Aye: Sauser, Kreitz, Holler, Duggan, Peter. Motion carries 5-0.

d) Update on legislation of interest to Regional Transportation Planning Agencies *(Gerry LeFrancois)*
- LeFrancois gave an update and answered questions from the Commission.

4. CALTRANS

a) Update on Caltrans activities in Mono County *(CT staff)*
- Dennee Alcala gave an update on Caltrans activities in Mono County.

5. TRANSIT

a) ESTA Update *(Phil Moores)*

- Moores gave a presentation and answered questions from the commission.

b) YARTS Update *(Christine Chavez)*
   - A representative from YARTS was unable to attend.

6. INFORMATIONAL

a) Town Mammoth Lakes quarterly report *(Haislip Hayes)*
   - Hayes gave a quarterly update.

b) Mono County quarterly report *(Chad Senior)*
   - Senior gave a quarterly report on the roads in Mono County.
   - A public comment was made by John Armstrong regarding Benton Crossing Road and the concerns regarding the current conditions of the road.

7. CORRESPONDENCE

8. COMMISSIONER REPORTS

a) Commissioners Kreitz and Commissioner Holler gave reports.

9. UPCOMING AGENDA ITEMS

a) Update on transportation/trails projects from Eastern Sierra Council of Governments.
b) Allocation of LTF and STA funds.
c) Resolution of Appreciation for Gerry LeFrancois.

10. ADJOURN at 11:03 TO - June 13, 2022, at 9am

Mono County Local Transportation Commission
Resolution of Appreciation

WHEREAS, following work on a master's degree in Town and Rural Planning at CSU Chico, Gerry Le Francois became an Assistant Planner with the Mono County Planning Department in 1994; and

WHEREAS, Gerry took on a variety of current planning, advanced planning, and environmental assignments, and during the ensuing 28 years steadily progressed to Associate Planner, Senior Planner, and Principal Planner, where he became the primary transportation planner for the Local Transportation Commission (LTC), and then most recently the Executive Director of the LTC; and

WHEREAS, given his versatility and expertise, Gerry touched most major planning undertakings of the County, including key transportation projects such as the June Lake Avalanche Bypass Road (Lakeshore Drive), Crowley Lake Drive traffic calming, trails plans, wildlife crossing funding, regional transportation plan updates, and main street plans; and

WHEREAS, Gerry became the in-house expert on programming the Regional Transportation Improvement Program (RTIP) and other funding sources such as the Transportation Enhancement (TE) program, coordinating millions of dollars to deliver projects like the Lake Mary Bike Path in the Town of Mammoth Lakes and School Street Plaza in Bridgeport, and enhancing quality of life, safety, recreational opportunities, and community character for the Town of Mammoth Lakes and Mono County alike; and

WHEREAS, Gerry was a key player in managing the Memorandum of Understanding (MOU) projects between Mono County LTC, Inyo County LTC, and Kern Council of Governments, along with Caltrans District 9, leveraging funding across multiple jurisdictions to deliver projects with regional benefits from Mojave to the Nevada State border such as the North Mojave, Freeman Gulch Segment 1, and Olancha Cartago (under construction) four-lane projects, and making possible the High Point Curve safety project; and

WHEREAS, Gerry's special tasks included serving several years as Secretary to the California Transportation Commission's Rural County Task Force, coordinating a rare California Transportation Commission meeting visit to Mono County, and convening the Airport Land Use Commission; and

WHEREAS, Gerry's vast knowledge of Mono County transportation planning history serves as invaluable institutional memory, and will likely result in staff continuing to call him about the history of various transportation projects in his retirement; and

WHEREAS, Gerry's calming demeanor, unconditional teamwork, and skill dealing with contentious situations, and simply being one of the nicest people around, will be sorely missed.

NOW, THEREFORE, BE IT RESOLVED that the Mono County Local Transportation Commission expresses its sincere appreciation to Gerry Le Francois for his many years of service to the citizens of Mono County and the Town of Mammoth Lakes, and wishes him many happy trails in retirement.

John Wentworth, Chair	John Peters, Vice Chair	Bill Sauser, Commissioner
Rhonda Duggan, Commissioner	Jennifer Kreitz, Commissioner	Dan Holler, Commissioner

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June 13, 2022

TO: Mono County Local Transportation Commission

FROM: Deanna Tuetken, Administrative Services Specialist

RE: FY 2022-23 State Transit Assistance Fund (STA) apportionment and allocation

RECOMMENDATION
Adopt Resolution R22-05 approving the apportionment and allocation for State Transit Assistance 2022-23 fiscal year.

FINANCIAL IMPLICATIONS
The 2022-23 estimate, as provided by the State Controller's Office for STA funding, is $305,881. Allocation of these funds is guided by the Transportation Development Act. This is $76,749 above the 2021-22 STA estimate.

DISCUSSION
The State Controller has estimated that Mono County's share of the STA 2022-23 allocation is $305,881 as per the attached, with $123,750 from PUC 99313 and $182,131 from PUC 99314. The allocation is based on the Public Utilities Code sections 99313 and 99314. It should be noted that the Section 99314 allocation is based on the Annual Report of Financial Transactions of Transit Operators, as submitted by Eastern Sierra Transit Authority (ESTA). Reporting requirements result in ESTA's submitting one report for all services in Inyo and Mono counties. Therefore, the Section 99314 allocation reflects the regional allocation for both counties. Note that 30% of the 99314 funds will be directed to Inyo County ($54,639). Staff has a claimant letter on file from ESTA for these funds, as required by the Transportation Development Act and State Law (Public Utilities Code Section 99313 and 99314). The attached resolution R22-07 allocates these funds to ESTA for transit operations as a pass-through entity.

For questions regarding this item, please contact Megan Mahaffey at 760.924.1836.

ATTACHMENTS
1. State Controller Apportionment Allocation Estimate FY 2022-23
2. Resolution R22-07

BETTY T. YEE
California State Controller

January 31, 2022

County Auditors Responsible for State Transit Assistance Funds
Transportation Planning Agencies
County Transportation Commissions
San Diego Metropolitan Transit System

SUBJECT: Fiscal Year 2022-23 State Transit Assistance Allocation Preliminary Estimate

Enclosed is a preliminary summary schedule of State Transit Assistance (STA) funds estimated to be allocated for fiscal year (FY) 2022-23 to each Transportation Planning Agency (TPA), county transportation commission, and the San Diego Metropolitan Transit System for the purposes of Public Utilities Code (PUC) sections 99313 and 99314. Also enclosed is a schedule detailing the amount of the PUC section 99314 allocation for each TPA by operator.

PUC section 99313 allocations are based on the latest available annual population estimates from the Department of Finance. Pursuant to PUC section 99314.10, the PUC section 99314 allocations are based on the State Controller's Office (SCO) transmittal letter, Reissuance of the FY 2020-21 STA Allocation Estimate, dated July 30, 2021. Pursuant to PUC section 99314.3, each TPA is required to allocate funds to the STA-eligible operators in the area of its jurisdiction.

According to the FY 2022-23 enacted California Budget, the estimated amount of STA funds budgeted is $734,715,000. SCO anticipates the first quarter's allocation will be paid by November 30, 2022. Please refer to the schedule for the amounts that relate to your agency.

Please contact Mike Silvera by telephone at (916) 323-0704 or email at msilvera@sco.ca.gov with any questions, or for additional information.

Sincerely,

(Original Signed By)

MELMA DIZON
Manager
Local Apportionments Section

Enclosures

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE
SUMMARY
JANUARY 31, 2022

Regional Entity	PUC 99313 Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate	PUC 99313 Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate	PUC 99314 Fiscal Year 2022-23 Estimate	Total Fiscal Year 2022-23 Estimate
	A	**B**	**C**	**D= (A+B+C)**
Metropolitan Transportation Commission	$ 39,184,873	$ 32,514,802	$ 196,846,972	$ 268,546,647
Sacramento Area Council of Governments	9,966,407	8,269,920	6,366,559	24,602,886
San Diego Association of Governments	4,864,088	4,036,120	2,188,240	11,088,448
San Diego Metropolitan Transit System	12,001,214	9,958,360	9,009,395	30,968,969
Tahoe Regional Planning Agency	549,716	456,143	58,050	1,063,909
Alpine County Transportation Commission	5,774	4,792	827	11,393
Amador County Transportation Commission	190,135	157,770	13,160	361,065
Butte County Association of Governments	1,030,967	855,476	104,727	1,991,170
Calaveras County Local Transportation Commission	229,096	190,099	5,122	424,317
Colusa County Local Transportation Commission	113,175	93,910	9,085	216,170
Del Norte County Local Transportation Commission	137,088	113,753	13,189	264,030
El Dorado County Local Transportation Commission	885,654	734,897	111,591	1,732,142
Fresno County Council of Governments	5,222,677	4,333,670	1,717,767	11,274,114
Glenn County Local Transportation Commission	150,976	125,276	7,679	283,931
Humboldt County Association of Governments	665,633	552,328	211,301	1,429,262
Imperial County Transportation Commission	946,346	785,258	160,135	1,891,739
Inyo County Local Transportation Commission	94,429	78,355	0	172,784
Kern Council of Governments	4,650,456	3,858,853	521,962	9,031,271
Kings County Association of Governments	775,979	643,891	57,102	1,476,972
Lake County/City Council of Governments	325,260	269,894	32,171	627,325
Lassen County Local Transportation Commission	140,257	116,383	12,051	268,691
Los Angeles County Metropolitan Transportation Authority	51,095,675	42,398,142	121,686,458	215,180,275
Madera County Local Transportation Commission	806,150	668,926	49,111	1,524,187
Mariposa County Local Transportation Commission	91,753	76,135	4,708	172,596
Mendocino Council of Governments	440,881	365,834	61,761	868,476
Merced County Association of Governments	1,448,947	1,202,307	127,949	2,779,203
Modoc County Local Transportation Commission	48,280	40,062	6,942	95,284
Mono County Local Transportation Commission	67,631	56,119	182,131	305,881
Transportation Agency for Monterey County	2,224,616	1,845,940	1,266,400	5,336,956
Nevada County Local Transportation Commission	495,805	411,409	44,638	951,852
Orange County Transportation Authority	16,043,046	13,312,190	10,627,316	39,982,552
Placer County Transportation Planning Agency	1,618,612	1,343,091	426,130	3,387,833
Plumas County Local Transportation Commission	92,155	76,469	27,539	196,163
Riverside County Transportation Commission	12,485,685	10,360,365	3,739,538	26,585,588
Council of San Benito County Governments	323,154	268,146	9,762	601,062
San Bernardino County Transportation Authority	11,068,745	9,184,617	4,336,855	24,590,217
San Joaquin Council of Governments	3,985,800	3,307,335	1,664,301	8,957,436
San Luis Obispo Area Council of Governments	1,379,439	1,144,630	180,903	2,704,972
Santa Barbara County Association of Governments	2,244,221	1,862,208	1,052,827	5,159,256
Santa Cruz County Transportation Commission	1,328,279	1,102,179	2,249,725	4,680,183
Shasta Regional Transportation Agency	904,445	750,490	87,568	1,742,503
Sierra County Local Transportation Commission	16,222	13,462	1,146	30,830
Siskiyou County Local Transportation Commission	225,505	187,119	17,498	430,122
Stanislaus Council of Governments	2,828,183	2,346,768	292,651	5,467,602
Tehama County Transportation Commission	332,453	275,862	12,549	620,864
Trinity County Transportation Commission	68,852	57,132	4,915	130,899
Tulare County Association of Governments	2,450,553	2,033,418	471,317	4,955,288
Tuolumne County Transportation Council	271,974	225,678	13,107	510,759
Ventura County Transportation Commission	4,248,739	3,525,517	1,264,670	9,038,926
Subtotals	$ 200,766,000	$ 166,591,500		
State Totals		$ 367,357,500	$ 367,357,500	$ 734,715,000

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
Altamont Corridor Express*				
Alameda County Congestion Management Agency	$ NA	$ 157,026	$ 130,297	$ 287,323
Santa Clara Valley Transportation Authority	NA	90,592	75,171	165,763
San Joaquin Regional Rail Commission	NA	507,315	420,960	928,275
Regional Entity Totals	0	754,933	626,428	1,381,361
	0	(754,933)	(626,428)	(1,381,361)
Metropolitan Transportation Commission				
Alameda-Contra Costa Transit District, San Francisco Bay Area Rapid Transit District, and the City of San Francisco**	2,032,465,904	71,632,416	59,439,108	131,071,524
Central Contra Costa Transit Authority	12,684,408	447,050	370,953	818,003
City of Dixon	123,850	4,365	3,622	7,987
Eastern Contra Costa Transit Authority	6,132,724	216,142	179,350	395,492
City of Fairfield	2,250,751	79,326	65,823	145,149
Golden Gate Bridge Highway and Transportation District	138,827,667	4,892,854	4,059,991	8,952,845
Livermore-Amador Valley Transit Authority	6,084,421	214,440	177,938	392,378
Marin County Transit District	23,726,064	836,204	693,865	1,530,069
Napa Valley Transportation Authority	1,722,522	60,709	50,375	111,084
Peninsula Corridor Joint Powers Board	144,681,126	5,099,154	4,231,174	9,330,328
City of Petaluma	739,065	26,048	21,614	47,662
City of Rio Vista	39,373	1,388	1,151	2,539
San Francisco Bay Area Water Emergency Transportation Authority	39,452,081	1,390,453	1,153,769	2,544,222
San Mateo County Transit District	145,105,738	5,114,119	4,243,592	9,357,711
Santa Clara Valley Transportation Authority	439,800,215	15,500,359	12,861,880	28,362,239
City of Santa Rosa	2,483,478	87,528	72,629	160,157
Solano County Transit	5,290,076	186,444	154,707	341,151
County of Sonoma	3,459,517	121,928	101,173	223,101
Sonoma-Marin Area Rail Transit District	29,993,581	1,057,097	877,157	1,934,254
City of Union City	1,879,467	66,240	54,965	121,205
City of Vacaville	402,817	14,197	11,780	25,977
Western Contra Costa Transit Authority	8,044,931	283,536	235,273	518,809
Regional Entity Subtotals	3,045,389,776	107,331,997	89,061,889	196,393,886
Alameda County Congestion Management Agency - Corresponding to ACE*	NA	157,026	130,297	287,323
Santa Clara Valley Transportation Authority - Corresponding to ACE*	NA	90,592	75,171	165,763
Regional Entity Totals	3,045,389,776	107,579,615	89,267,357	196,846,972
Sacramento Area Council of Governments				
City of Davis (Unitrans)	2,957,630	104,239	86,495	190,734
City of Elk Grove	2,129,534	75,053	62,278	137,331
County of Sacramento	1,189,071	41,908	34,774	76,682
Sacramento Regional Transit System	86,413,727	3,045,574	2,527,154	5,572,728
Yolo County Transportation District	4,689,895	165,291	137,155	302,446
Yuba Sutter Transit Authority	1,343,449	47,349	39,289	86,638
Regional Entity Totals	98,723,306	3,479,414	2,887,145	6,366,559

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* The amounts allocated to the member agencies of Altamont Corridor Express are included with their corresponding transportation planning agency.

** The amounts for Alameda-Contra Costa Transit District, San Francisco Bay Area Rapid Transit District, and the City of San Francisco are combined.

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
San Diego Association of Governments				
North County Transit District	33,932,036	1,195,904	992,336	2,188,240
San Diego Metropolitan Transit System				
San Diego Metropolitan Transit System	33,958,141	1,196,824	993,100	2,189,924
San Diego Transit Corporation	62,951,421	2,218,666	1,841,003	4,059,669
San Diego Trolley, Inc.	42,794,978	1,508,270	1,251,532	2,759,802
Regional Entity Totals	139,704,540	4,923,760	4,085,635	9,009,395
Southern California Regional Rail Authority***				
Los Angeles County Metropolitan Transportation Authority	NA	4,184,078	3,471,862	7,655,940
Orange County Transportation Authority	NA	1,837,421	1,524,654	3,362,075
Riverside County Transportation Commission	NA	934,989	775,835	1,710,824
San Bernardino County Transportation Authority	NA	944,172	783,455	1,727,627
Ventura County Transportation Commission	NA	447,459	371,292	818,751
Regional Entity Totals	0	8,348,119	6,927,098	15,275,217
	0	(8,348,119)	(6,927,098)	(15,275,217)
Tahoe Regional Planning Agency				
Tahoe Transportation District	900,147	31,725	26,325	58,050
Alpine County Transportation Commission				
County of Alpine	12,816	452	375	827
Amador County Transportation Commission				
Amador Transit	204,076	7,192	5,968	13,160
Butte County Association of Governments				
Butte Regional Transit	1,601,714	56,451	46,842	103,293
City of Gridley - Specialized Service	22,232	784	650	1,434
Regional Entity Totals	1,623,946	57,235	47,492	104,727
Calaveras County Local Transportation Commission				
Calaveras Transit Agency	79,417	2,799	2,323	5,122
Colusa County Local Transportation Commission				
County of Colusa	140,877	4,965	4,120	9,085
Del Norte County Local Transportation Commission				
Redwood Coast Transit Authority	204,530	7,208	5,981	13,189
El Dorado County Local Transportation Commission				
El Dorado County Transit Authority	1,730,379	60,986	50,605	111,591

*** The amounts allocated to the member agencies of Southern California Regional Rail Authority are included with their corresponding transportation planning agency.

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
Fresno County Council of Governments				
City of Clovis	1,770,328	62,394	51,773	114,167
City of Fresno	22,991,076	810,300	672,370	1,482,670
Fresno County Rural Transit Agency	1,875,194	66,090	54,840	120,930
Regional Entity Totals	26,636,598	938,784	778,983	1,717,767
Glenn County Local Transportation Commission				
County of Glenn Transit Service	119,071	4,197	3,482	7,679
Humboldt County Association of Governments				
City of Arcata	213,054	7,509	6,231	13,740
Humboldt Transit Authority	3,063,481	107,970	89,591	197,561
Regional Entity Totals	3,276,535	115,479	95,822	211,301
Imperial County Transportation Commission				
Imperial County Transportation Commission	2,462,028	86,772	72,002	158,774
Quechan Indian Tribe	21,107	744	617	1,361
Regional Entity Totals	2,483,135	87,516	72,619	160,135
Inyo County Local Transportation Commission	None	None	None	None
Kern Council of Governments				
City of Arvin	62,152	2,190	1,818	4,008
City of California City	25,760	908	753	1,661
City of Delano	279,451	9,849	8,172	18,021
Golden Empire Transit District	5,882,508	207,324	172,033	379,357
County of Kern	1,194,767	42,108	34,941	77,049
City of McFarland	12,106	427	354	781
City of Ridgecrest	159,250	5,613	4,657	10,270
City of Shafter	57,568	2,029	1,684	3,713
City of Taft	360,169	12,694	10,533	23,227
City of Tehachapi	28,252	996	826	1,822
City of Wasco	31,839	1,122	931	2,053
Regional Entity Totals	8,093,822	285,260	236,702	521,962
Kings County Association of Governments				
City of Corcoran	122,620	4,322	3,586	7,908
Kings County Area Public Transit Agency	762,823	26,885	22,309	49,194
Regional Entity Totals	885,443	31,207	25,895	57,102
Lake County/City Council of Governments				
Lake Transit Authority	498,852	17,582	14,589	32,171
Lassen County Local Transportation Commission				
Lassen Transit Service Agency	186,872	6,586	5,465	12,051

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
Los Angeles County Metropolitan Transportation Authority				
Antelope Valley Transit Authority	20,326,872	716,402	594,456	1,310,858
City of Arcadia	1,607,131	56,642	47,000	103,642
City of Burbank	3,769,842	132,865	110,248	243,113
City of Claremont	456,234	16,080	13,342	29,422
City of Commerce	4,235,696	149,283	123,872	273,155
City of Culver City	15,278,536	538,478	446,818	985,296
Foothill Transit	67,815,955	2,390,112	1,983,266	4,373,378
City of Gardena	13,772,242	485,390	402,767	888,157
City of Glendale	8,225,171	289,889	240,544	530,433
City of La Mirada	874,670	30,827	25,580	56,407
Long Beach Public Transportation Company	60,542,189	2,133,755	1,770,546	3,904,301
City of Los Angeles	98,801,791	3,482,180	2,889,441	6,371,621
County of Los Angeles	6,316,927	222,634	184,737	407,371
Los Angeles County Metropolitan Transportation Authority	1,332,273,335	46,954,765	38,962,099	85,916,864
City of Montebello	20,096,742	708,291	587,726	1,296,017
City of Norwalk	9,188,277	323,832	268,710	592,542
City of Pasadena	7,704,457	271,537	225,315	496,852
City of Redondo Beach	2,905,619	102,406	84,974	187,380
City of Santa Clarita	26,010,198	916,706	760,664	1,677,370
City of Santa Monica	47,544,183	1,675,652	1,390,421	3,066,073
Southern California Regional Rail Authority***	236,865,779	NA	NA	NA
City of Torrance	20,472,763	721,544	598,722	1,320,266
Regional Entity Subtotals	2,005,084,609	62,319,270	51,711,248	114,030,518
Los Angeles County Metropolitan Transportation Authority - Corresponding to SCRRA***	NA	4,184,078	3,471,862	7,655,940
Regional Entity Totals	2,005,084,609	66,503,348	55,183,110	121,686,458
Madera County Local Transportation Commission				
City of Chowchilla	524,476	18,485	15,338	33,823
City of Madera	169,785	5,984	4,965	10,949
County of Madera	67,286	2,371	1,968	4,339
Regional Entity Totals	761,547	26,840	22,271	49,111
Mariposa County Local Transportation Commission				
County of Mariposa	73,004	2,573	2,135	4,708
Mendocino Council of Governments				
Mendocino Transit Authority	957,692	33,753	28,008	61,761
Merced County Association of Governments				
Transit Joint Powers Authority of Merced County	1,025,125	36,130	29,980	66,110
Yosemite Area Regional Transportation System (YARTS)	958,913	33,796	28,043	61,839
Regional Entity Totals	1,984,038	69,926	58,023	127,949
Modoc County Local Transportation Commission				
Modoc Transportation Agency - Specialized Service	107,653	3,794	3,148	6,942

*** The amounts allocated to the member agencies of Southern California Regional Rail Authority are included with their corresponding transportation planning agency.

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
Mono County Local Transportation Commission				
Eastern Sierra Transit Authority	2,824,223	99,537	82,594	182,131
Transportation Agency for Monterey County				
Monterey-Salinas Transit	19,637,486	692,105	574,295	1,266,400
Nevada County Local Transportation Commission				
County of Nevada	369,077	13,008	10,794	23,802
City of Truckee	323,083	11,387	9,449	20,836
Regional Entity Totals	692,160	24,395	20,243	44,638
Orange County Transportation Authority				
City of Laguna Beach	1,910,271	67,326	55,866	123,192
Orange County Transportation Authority	110,748,483	3,903,229	3,238,820	7,142,049
Regional Entity Subtotals	112,658,754	3,970,555	3,294,686	7,265,241
Orange County Transportation Authority - Corresponding to SCRRA***	NA	1,837,421	1,524,654	3,362,075
Regional Entity Totals	112,658,754	5,807,976	4,819,340	10,627,316
Placer County Transportation Planning Agency				
City of Auburn	21,830	769	638	1,407
County of Placer	5,410,141	190,676	158,219	348,895
City of Roseville	1,175,827	41,441	34,387	75,828
Regional Entity Totals	6,607,798	232,886	193,244	426,130
Plumas County Local Transportation Commission				
County of Plumas	346,829	12,224	10,143	22,367
County Service Area 12 - Specialized Service	80,198	2,827	2,345	5,172
Regional Entity Totals	427,027	15,051	12,488	27,539
Riverside County Transportation Commission				
City of Banning	208,349	7,343	6,093	13,436
City of Beaumont	318,557	11,227	9,316	20,543
City of Corona	426,555	15,034	12,475	27,509
Palo Verde Valley Transit Agency	175,762	6,195	5,140	11,335
City of Riverside - Specialized Service	493,635	17,398	14,436	31,834
Riverside Transit Agency	18,329,390	646,003	536,040	1,182,043
Sunline Transit Agency	11,506,078	405,521	336,493	742,014
Regional Entity Subtotals	31,458,326	1,108,721	919,993	2,028,714
Riverside County Transportation Commission - Corresponding to SCRRA***	NA	934,989	775,835	1,710,824
Regional Entity Totals	31,458,326	2,043,710	1,695,828	3,739,538
Council of San Benito County Governments				
San Benito County Local Transportation Authority	151,384	5,335	4,427	9,762

*** The amounts allocated to the member agencies of Southern California Regional Rail Authority are included with their corresponding transportation planning agency.

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
San Bernardino County Transportation Authority				
Morongo Basin Transit Authority	1,027,787	36,223	30,057	66,280
Mountain Area Regional Transit Authority	564,732	19,903	16,515	36,418
City of Needles	58,190	2,051	1,702	3,753
Omnitrans	34,279,207	1,208,140	1,002,489	2,210,629
Victor Valley Transit Authority	4,530,204	159,663	132,485	292,148
Regional Entity Subtotals	40,460,120	1,425,980	1,183,248	2,609,228
San Bernardino County Transportation Authority - Corresponding to SCRRA***	NA	944,172	783,455	1,727,627
Regional Entity Totals	40,460,120	2,370,152	1,966,703	4,336,855
San Joaquin Council of Governments				
Altamont Corridor Express *	21,420,132	NA	NA	NA
City of Escalon	51,911	1,830	1,518	3,348
City of Lodi	887,825	31,291	25,964	57,255
City of Manteca	77,826	2,743	2,276	5,019
City of Ripon	44,345	1,563	1,297	2,860
San Joaquin Regional Transit District	10,156,807	357,967	297,034	655,001
City of Tracy	194,489	6,855	5,688	12,543
Regional Entity Subtotals	32,833,335	402,249	333,777	736,026
San Joaquin Regional Rail Commission - Corresponding to ACE*	NA	507,315	420,960	928,275
Regional Entity Totals	32,833,335	909,564	754,737	1,664,301
San Luis Obispo Area Council of Governments				
City of Arroyo Grande - Specialized Service	0	0	0	0
City of Atascadero	37,783	1,332	1,105	2,437
City of Morro Bay	42,401	1,494	1,240	2,734
City of Pismo Beach - Specialized Service	0	0	0	0
City of San Luis Obispo Transit	821,105	28,939	24,013	52,952
San Luis Obispo Regional Transit Authority	1,673,045	58,965	48,928	107,893
South County Transit	230,837	8,136	6,751	14,887
Regional Entity Totals	2,805,171	98,866	82,037	180,903
Santa Barbara County Association of Governments				
City of Guadalupe	69,525	2,450	2,033	4,483
City of Lompoc	136,501	4,811	3,992	8,803
County of Santa Barbara	0	0	0	0
Santa Barbara County Association of Governments (SBCAG)	1,620,453	57,111	47,390	104,501
Santa Barbara Metropolitan Transit District	13,488,703	475,397	394,475	869,872
City of Santa Maria	906,214	31,939	26,502	58,441
City of Solvang	104,313	3,676	3,051	6,727
Regional Entity Totals	16,325,709	575,384	477,443	1,052,827
Santa Cruz County Transportation Commission				
Santa Cruz Metropolitan Transit District	34,885,448	1,229,506	1,020,219	2,249,725

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* The amounts allocated to the member agencies of Altamont Corridor Express are included with their corresponding transportation planning agency.

*** The amounts allocated to the member agencies of Southern California Regional Rail Authority are included with their corresponding transportation planning agency.

STATE CONTROLLER'S OFFICE
2022-23 STATE TRANSIT ASSISTANCE ALLOCATION ESTIMATE PUC 99314 ALLOCATION DETAIL
JANUARY 31, 2022

Regional Entity and Operator(s)	Revenue Basis	Funds from RTC Sections 7102(a)(3), 6051.8(a), and 6201.8(a) Fiscal Year 2022-23 Estimate **A**	Funds from RTC Sections 6051.8(b), and 6201.8(b) Fiscal Year 2022-23 Estimate **B**	Total Fiscal Year 2022-23 Estimate **C= (A+B)**
Shasta Regional Transportation Agency				
Redding Area Bus Authority	1,357,867	47,857	39,711	87,568
Sierra County Local Transportation Commission				
County of Sierra - Specialized Service	17,768	626	520	1,146
Siskiyou County Local Transportation Commission				
County of Siskiyou	271,330	9,563	7,935	17,498
Stanislaus Council of Governments				
City of Ceres	70,776	2,494	2,070	4,564
City of Modesto	3,366,714	118,657	98,459	217,116
County of Stanislaus	806,855	28,437	23,596	52,033
City of Turlock	293,666	10,350	8,588	18,938
Regional Entity Totals	4,538,011	159,938	132,713	292,651
Tehama County Transportation Commission				
County of Tehama	194,589	6,858	5,691	12,549
Trinity County Transportation Commission				
County of Trinity	76,212	2,686	2,229	4,915
Tulare County Association of Governments				
City of Dinuba	276,368	9,740	8,082	17,822
City of Porterville	846,792	29,844	24,764	54,608
City of Tulare	589,094	20,762	17,228	37,990
County of Tulare	1,191,032	41,977	34,832	76,809
City of Visalia	4,391,535	154,776	128,430	283,206
City of Woodlake	13,667	482	400	882
Regional Entity Totals	7,308,488	257,581	213,736	471,317
Tuolumne County Transportation Council				
County of Tuolumne	203,234	7,163	5,944	13,107
Ventura County Transportation Commission				
City of Camarillo	751,079	26,471	21,965	48,436
Gold Coast Transit District	4,272,461	150,579	124,947	275,526
City of Moorpark	299,991	10,573	8,773	19,346
City of Simi Valley	1,167,392	41,144	34,140	75,284
City of Thousand Oaks	423,749	14,935	12,392	27,327
Regional Entity Subtotals	6,914,672	243,702	202,217	445,919
Ventura County Transportation Commission - Corresponding to SCRRA***	NA	447,459	371,292	818,751
Regional Entity Totals	6,914,672	691,161	573,509	1,264,670
STATE TOTALS	$ 5,696,443,829	$ 200,766,000	$ 166,591,500	$ 367,357,500

*** The amounts allocated to the member agencies of Southern California Regional Rail Authority are included with their corresponding transportation planning agency.

RESOLUTION R22-07
A RESOLUTION OF THE MONO COUNTY LOCAL TRANSPORTATION COMMISSION ALLOCATING STATE TRANSIT ASSISTANCE FUNDS FOR FISCAL YEAR 2022-23

WHEREAS, the Mono County Local Transportation Commission (MCLTC) is the designated transportation planning agency pursuant to Government Code Section 29535 and by action of the Secretary of Business, Transportation and Housing, and, as such, has the responsibility to apportion State Transit Assistance (STA) funds; and

WHEREAS, the State Controller has estimated **$305,881** of State Transit Assistance funds for public transportation to the Mono County LTC for fiscal year 2022-23; and

WHEREAS, the MCLTC has received a request from the Eastern Sierra Transit Authority to allocate the STA funds for transit operations in Mono County.

NOW, THEREFORE, BE IT RESOLVED that the Mono County Local Transportation Commission does hereby allocate FY 2022-23 STA estimated funds in the amount of **$305,881** to the Eastern Sierra Transit Authority. If additional funds are received, they will also be allocated to Eastern Sierra Transit Authority. If less funds are received, the lesser amount will be allocated to Eastern Sierra Transit Authority.

BE IT FURTHER RESOLVED that this action is taken in conformance with the Mono County Regional Transportation Plan (RTP); with the Commission's earlier action defining current "Unmet Transit Needs" and those that are "Reasonable to Meet"; and in conformance with requirements of Public Utilities Code Sections 99313 and 99314.

PASSED AND ADOPTED this 13th day of June 2022 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Jennifer Kreitz, Chair
Local Transportation Commission

Attest:

_____
Heidi Willson, Secretary

Approved as to form:

_____
Christian Milovich, Assistant County Counsel

Mono County
Local Transportation Commission

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Mammoth Lakes, CA 93546
760.924.1800 phone, 924.1801 fax
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June 13, 2022

TO: Mono County Local Transportation Commission

FROM: Deanna Tuetken, Administrative Services Specialist

RE: FY 2022-23 Local Transportation Fund (LTF) Apportionment and Allocation

RECOMMENDATION
Approve Resolution R22-07 approving the apportionment and allocation for the 2022-23 Local Transportation Fund.

FINANCIAL IMPLICATIONS
The 2022-23 estimate from the Mono County Auditor/Controller Office for LTF funding is $716,546. Allocation of these funds is guided by the Transportation Development Act. This is $24,275 above the 2021-22 estimate.

DISCUSSION
The Mono County Local Transportation Commission (LTC) is the Regional Transportation Planning Agency (RTPA) responsible for apportioning and administering the Local Transportation Fund (LTF) in accordance with the Transportation Development Act. The Local Transportation fund is comprised of 0.25% of local sales and use tax distributed by the State Board of Equalization monthly based on sales tax collected in each county. Annually, the Mono County director of finance provides the Local Transportation Commission with estimates for the Local Transportation Fund revenue for the upcoming fiscal year based on a 10-year rolling average. The Mono County LTF 2022-23 estimate is $716,546. The estimated rollover balance from allocated reserve is $24,275. The total available balance for 2022-23 allocation is $839,837. This does not account for 2021-22 LTF revenues above projections. The Mono County LTC received claimant letters from Eastern Sierra Transit Authority (ESTA), Yosemite Area Regional Transportation System (YARTS), and Mono County Social Services.

Two triennial performance audits, one for fiscal years 2015-2018 and the other for fiscal years 2018-2021, will be conducted by Michael Baker International. The cost will be approximately $20,000. The LTC Executive Director will sign the engagement letter.

Each year, the LTC must adopt a resolution establishing how these funds will be allocated. Based on the Local Transportation Act, Auditor's 2022-23 estimate, the submitted claimant letters, and direction from the Commission, LTC staff proposes the attached Resolution R22-07.

For questions regarding this item, please contact Deanna Tuetken at 760.924.1816.

ATTACHMENTS
1. 2022-23 LTF Revenues and Estimates
2. 2022-23 Proposed LTF Allocation
3. Resolution R22-07

LTF Revenues and Estimates

	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
July	$30,300	$34,900	$38,700	$39,000	$37,300	$36,900	$37,400	$58,239	$76,240	$111,622	$90,308
August	$40,400	$46,500	$51,600	$52,000	$49,700	$49,200	$49,900	$40,410	$49,275	$24,395	$89,455
September	$67,356	$69,720	$58,333	$54,319	$62,366	$80,307	$90,265	$82,865	$72,677	$48,099	$80,745
October	$45,500	$50,900	$50,500	$51,400	$54,200	$53,100	$55,500	$116,754	$117,517	$183,514	$145,041
November	$60,600	$67,800	$67,300	$68,600	$72,200	$70,800	$74,000	$43,398	$54,977	$12,679	$63,792
December	$59,606	$42,976	$49,973	$60,479	$48,447	$68,008	$84,447	$56,705	$60,511	$64,068	$65,069
January	$36,100	$38,900	$37,800	$41,200	$39,700	$43,800	$44,500	$67,019	$76,638	$84,093	$72,111
February	$48,100	$51,800	$50,400	$54,900	$53,000	$58,400	$59,300	$80,601	*$73,953*	$40,588	$108,411
March	$58,082	$42,236	$62,547	$48,387	$66,240	$59,886	$78,780	$66,255	*$68,314*	$54,523	$66,010
April	$41,300	$40,400	$43,200	$46,100	$32,800	$43,400	$57,000	$89,384	$71,518	$79,415	$86,813
May	$55,000	$53,900	$57,600	$61,500	$43,700	$57,800	$76,963	$67,701		*$58,789*	*$52,789*
June	$41,345	$57,347	$61,092	$939	$114,400	$99,793	$54,390	$56,902	$22,683	*$55,657*	*$56,251*
Total	**$583,690**	**$597,379**	**$629,046**	**$578,825**	**$674,054**	**$721,394**	**$762,445**	**$826,233**	**$744,304**	**$817,442**	**$976,795**
Estimates	*$497,000*	*$560,000*	*$575,000*	*$592,235*	*$622,812*	*$607,787*	*$604,264*	*$617,259*	*$638,805*	*$541,633*	*$867,216*

LTF PROPOSED ALLOCATION 2022-2023

		Budget	
Reserve forward + unspent allocations	$	123,291	
Estimated 2022/23 revenue	$	716,546	
Estimated Total Revenue	**$**	**839,837**	
Specific Allocations			
Reserve - 15%	$	125,976	
Administration	$	10,000	
Annual Audit	$	10,000	
Triennal Audits	$	20,000	
Planning and Programming	$	10,000	3 Year maximum allocation
Bike Path-2% of balance	$	13,677	2022-23 = TOML year 3
ESTA-CTSA <5% of bal	$	19,762	
Senior Services	$	30,000	
YARTS	$	40,000	
Federal Grant 5311(f) Matching Funds	$	105,064	
Remaining Balance			
	$	**455,358**	
ESTA - Town of Mammoth Lakes 58%	$	264,108	
ESTA - Mono County 42%	$	191,250	
ESTA TOTAL LTF	$	580,184	

*Revenues above projections will be split:
15% to reserve
49.3% to TOML
35.7% to County

RESOLUTION R22-07
A RESOLUTION OF THE MONO COUNTY LOCAL TRANSPORTATION COMMISSION ALLOCATING LOCAL TRANSPORTATION FUNDS FOR FISCAL YEAR 2022-23

WHEREAS, the Mono County Local Transportation Commission (MCLTC) is the designated transportation planning agency pursuant to Government Code Section 29535 and by action of the Secretary of Business, Transportation and Housing, and, as such, has the responsibility to apportion and allocate Local Transportation Funds (LTF); and

WHEREAS, the County auditor has estimated that **$716,546** of MCLTC moneys will be available for apportionment in fiscal year **2022-23**. Staff estimates an additional **$123,291** of prior-year reserve and unallocated revenue for a total apportionment of **$839,837**; and

WHEREAS, in accordance with the adopted MCLTC Handbook, a reserve of 15% of the budgeted allocation will be established, totaling **$125,976**; and

WHEREAS, pursuant to the Transportation Development Act, the following funds are allocated and apportioned under priority 1:

- In accordance with the adopted MCLTC Handbook, **$10,000** of LTF has been committed to LTF auditing and **$10,000** to administration per 99233.1; and
- In accordance with the adopted MCLTC Handbook, **$20,000** of LTF has been committed to LTF triennial performance auditing and **$10,000** per 99233.1;

WHEREAS, pursuant to the Transportation Development Act, the following funds are allocated and apportioned under priority 2:

- In accordance to the adopted MCLTC Handbook, **$10,000** of LTF has been committed to LTF planning and programming per 99233.2; and

WHEREAS, pursuant to the Transportation Development Act, the following funds are allocated and apportioned under priority 3:

- Based upon prior action of the MCLTC, and in accordance with 99233.3 of the Transportation Development Act, 2% of the remaining LTF, or **$13,677**, will be “set aside” for bike path construction. The **2022-23** apportionment/allocation is the **third year** of a three-year allocation to the Town of Mammoth Lakes; and

WHEREAS, pursuant to the Transportation Development Act, the following funds are allocated and apportioned under priority 6:

- In accordance with 99233.7 of the Transportation Development Act, **$19,762** (less than 5% of the remaining LTF), is available for administration for ESTA serving as the Mono County Consolidated Transportation Service Agency (CTSA); and

WHEREAS, pursuant to the Transportation Development Act, the following funds are allocated and apportioned under priority 7:

- **$30,000** of LTF will be allocated and apportioned to the Mono County Senior Program for medical escort service for seniors and other transit-dependent adults,
- **$40,000** of LTF will be allocated and apportioned to YARTS for operating costs; and
- **$105,064** will be allocated and apportioned for the 395 Routes Service (old CREST service); and

WHEREAS, the MCLTC has accepted the pending ESTA-proposed Mono County and Town of Mammoth Lakes transit system budget of **$455,358** for FY **2022-23**; and

WHEREAS, the remaining available LTF moneys, **$455,358** will be split 58% for the Town of Mammoth Lakes and 42% for Mono County; and

WHEREAS, if revenues still exceed projections, the following allocations and apportionments will apply:

- 15% to be placed in reserve
- 49.3% (58% of balance) to the Town of Mammoth Lakes
- 35.7% (42% of balance) to Mono County.

NOW, THEREFORE, BE IT RESOLVED that the Mono County Local Transportation Commission hereby allocates **2022-23** LTF moneys as follows:

1. **$125,976** into reserve
2. **$10,000** for LTC annual audit costs for the LTF, Public Utilities Code 99233.1
3. **$20,000** for LTC triennial audit costs for the LTF, Public Utilities Code 99233.1
4. **$10,000** for LTC administration for the LTF, Public Utilities Code 99233.1
5. **$10,000** for LTC planning and programming, Public Utilities Code 99233.2
6. **$13,677** or 2% of remaining LTF moneys for bicycle path "set-aside" to TOML
7. **$19,762** (included in the ESTA budget) is apportioned and allocated to Eastern Sierra Transit Authority for CTSA administration, Public Utilities Code 99233.7
8. **$30,000** of remaining LTF to the Mono County Senior Program for medical escort service for seniors and other transit-dependent adults
9. **$40,000** is apportioned and allocated to YARTS for FY **2022-23** for operating costs
10. **$105,064** is apportioned and allocated to ESTA for Federal Operating Grant Match (TDA Section 99262)
11. **$455,358** of remaining LTF, Public Utilities Code 99400 (c) apportioned and allocated to Mono County and the Town of Mammoth Lakes for system operations **(Town $264,108; County $191,250)**.

BE IT FURTHER RESOLVED that the Mono County Local Transportation Commission does hereby apportion and allocate **2022-23** LTF moneys in excess of budget projections as follows:

1. The following split will be used:
    a. 15% to be placed in reserve
    b. 49.3% (58% of balance) to the Town of Mammoth Lakes
    c. 35.7% (42% of balance) to Mono County

BE IT FURTHER RESOLVED that this action is taken in conformance with the Mono County Regional Transportation Plan (RTP) and with the Commission's earlier action defining current "Unmet Transit Needs" that are "Reasonable to Meet."

PASSED AND ADOPTED this 13th day of June 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Jennifer Kreitz, Chair
Mono County Local Transportation Commission

Attest:

_____
Heidi Willson, Secretary

Approved as to form:

_____
Christian Milovich, Assistant County Counsel

Agenda Item #5c: Audit Engagement Letter for FY 21-22

FECHTER & COMPANY
Certified Public Accountants

Craig R. Fechter, CPA, MST
(1976 - 2022)

June 2, 2022

Ms. Deanna Tuetken
Mono County Local Transportation Commission
P.O. Box 347
Mammoth Lakes, CA 93546

Dear Ms. Tuetken,

We are pleased to confirm our understanding of the services we are to provide Mono County Local Transportation Commission (the Commission) for the year ended June 30, 2022.

Audit Scope and Objectives

We will audit the financial statements of the governmental activities, each major fund, and the aggregate remaining fund information, and the disclosures, which collectively comprise the basic financial statements of the Commission as of and for the year ended June 30, 2022. Accounting standards generally accepted in the United States of America (GAAP) provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement the Commission's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Commission's RSI in accordance with auditing standards generally accepted in the United States of America (GAAS). These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient appropriate evidence to express an opinion or provide any assurance. The following RSI is required by GAAP and will be subjected to certain limited procedures, but will not be audited:

1) Management's Discussion and Analysis
2) Budgetary Comparison Schedule

We have also been engaged to report on supplementary information other than RSI that accompanies the Commission's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS, and we will provide an opinion on it in relation to the financial statements as a whole.

1) Combining Statements of Private Purpose Trust Funds and Local Transportation Fund.
2) Schedule of Allocations and Expenditures – Local Transportation Fund
3) Schedule of Allocations and Expenditures – State Transit Assistance Fund
4) Statement of Revenues, Expenditures and Changes in Fund Balance - Overall Work Program – Planning Fund

The objectives of our audit are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; issue an auditor's report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with GAAP; and report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment of a reasonable user made based on the financial statements.

The objectives also include reporting on internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.

Auditor's Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with GAAS and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and will include tests of your accounting records of the Commission and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with GAAS and *Government Auditing Standards*, we exercise professional judgment and maintain professional skepticism throughout the audit.

We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of waste and abuse is subjective, *Government Auditing Standards* do not expect auditors to perform specific procedures to detect waste or abuse in financial audits nor do they expect auditors to provide reasonable assurance of detecting waste or abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with GAAS and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

We will also conclude, based on the audit evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the government's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions. We will also request written representations from your attorneys as part of the engagement.

We have not yet identified any significant risk(s) of material misstatement as part of our audit planning; however, if we do identify a risk(s) during the course of our audit, we will communicate the risk(s) to you.

We may, from time to time and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

Our audit of financial statements does not relieve you of your responsibilities.

Audit Procedures—Internal Control

We will obtain an understanding of the government and its environment, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinions. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

Audit Procedures—Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Commission's compliance with the provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

Other Services

We will also assist in preparing the financial statements and related notes of the Commission in conformity with accounting principles generally accepted in the United States of America based on information provided by you. In addition, we will compile the Annual Report of Financial Transactions and file it with the California State Controller's office. These non-audit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*. We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statement services previously defined. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

You agree to assume all management responsibilities relating to the financial statements and related notes and any other non-audit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements and related notes and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the non-audit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing, establishing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, and for evaluating and monitoring ongoing activities to help ensure that appropriate goals and objectives are met; following laws and regulations; and ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles, for the preparation and fair presentation of the financial statements and all accompanying information in conformity with accounting principles generally accepted in the United States of America, and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is responsible for making drafts of financial statements, all financial records, and related information available to us and for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by GAAS and *Government Auditing Standards*.

Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements of each opinion unit taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws, regulations, contracts, agreements, and grants and for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, or contracts or grant agreements that we report.

You are responsible for the preparation of the supplementary information, which we have been engaged to report on, in conformity with accounting principles generally accepted in the United States of America (GAAP). You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon or make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Scope and Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Electronic Communication, Client Portal Agreement and File Exchange Processes

In connection with this engagement, we may communicate with you or others via email transmission. As emails can be intercepted and read, disclosed, or otherwise used or communicated by an unintended third party, or may not be delivered to each of the parties to whom they are directed and only to such parties, we cannot guarantee or warrant that emails from us will be properly delivered and read only by the addressee. Therefore, we specifically disclaim and waive any liability or responsibility whatsoever for interception or unintentional disclosure of emails transmitted by us in connection with the performance of this engagement. In that regard, you agree that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions, including any consequential, incidental, direct, indirect, or special damages, such as loss of revenues or anticipated profits, or disclosure or communication of confidential or proprietary information.

As part of our commitment to protecting your sensitive information, Fechter & Company works with Thomson Reuters to provide secure, encrypted, file transfer portals (Firm's Client Portal). All documents you prepare for our use in completing the services outlined in this engagement letter (Word, Excel and PDF files) should be transmitted to Fechter & Company through this portal system and all sensitive files will be

transmitted through this system. In addition, we will publish all issued financial statements to this portal area for your us as long as you remain a client with Fechter & Company or as required by the terms of our engagement letters.
By using any features of the Firm's Client Portal, the Commission consents to the following terms and conditions and acknowledges that the Firm is relying on your consent in allowing you to use the Firm's Client Portal. Your continued use of the Firm's Client Portal after the posting of any amended terms and conditions shall constitute your agreement to be bound by any such changes. The Firm may modify, suspend, discontinue, or restrict the use of any portion of the Firm's Client Portal, including the availability of any portion of the content at any time, without notice or liability.

The Firm will use its best reasonable efforts to provide availability of the Client Portal Service 24X7. The Firm shall not be responsible for any error, omission, interruption, deletion, defect, delay in operation or transmission, communications line failure, theft or destruction, or unauthorized access to the Client Portal. The Firm is not responsible for any problems or technical malfunctions of any telephone or fiber network or lines, computer online systems, servers or providers, computer equipment, software, failure of any email to be received by the Firm on account of technical problems or traffic congestion on the Internet or any website, or any combination thereof, including any injury or damage to the Commission's computers or peripherals related to downloading any materials from the Client Portal.

Documents are encrypted before being passed over the Internet and while being stored on the Portal and a username and password are required to access files. In addition, documents added to the Portal are scanned for viruses before being uploaded. All files are maintained behind firewalls to protect against outside intruders. *The Firm will use its best efforts to make the Client Portal secure from unauthorized access. However, the Commission recognizes that no completely secure system for electronic data transfer has yet been devised.*

Logon Accounts and Their Security.

a. The Firm will set up individual logon accounts for those of the Commission's employees who need access to the Client Portal. Each account will have access only to those document areas requested by Client. (The Firm strongly recommends that Client establish a policy that logon information not be shared with others.) In order to maintain security, the Commission agrees to designate a single individual as the authorized person to contact the Firm to request employee logons. The initial designee is listed below. Your username will be your email address, all passwords will be established by the user at the time of initial logon.
b. You acknowledge that the use of username and password is an adequate form of security. You are solely responsible for (1) authorizing, monitoring, controlling access to, and maintaining the strict confidentiality of your username and password; (2) not allowing another person to use your username or password; (3) any charges or damages that may be incurred as a result of your neglect to maintain the strict confidentiality of your username and password; and (4) promptly informing the Firm in writing of any need to deactivate a username due to security concerns or otherwise. The Firm is not liable for any harm related to the misuse or theft of usernames or passwords, disclosure of usernames or passwords, or your authorization to allow another person or entity to access and use the Firm's Client Portal using your username or password. You shall immediately notify the Firm of any unauthorized use of your username or password and any breach of confidentiality. Until the Firm receives this notification from you, you will be held liable for any harm ensuing from the use of your username on the Firm's Client Portal.

Termination of Logon Account. The Commission agrees to notify the Firm via email at support@fechtercpa.com in writing when an individual logon account is to be terminated. The Firm will make every effort to confirm and terminate access within 3 business days. However, the Commission cannot be assured that access has been terminated until the requester receives an email confirmation of termination.

No Unlawful or Prohibited Use. As a condition of your use of the Client Portal website, you warrant to the Firm that you or your approved users will not use the Firm's Client Portal website for any purpose that is unlawful or prohibited by these terms, conditions, and notices. You may not use the Firm's Client Portal website in any manner that could damage, disable, overburden, or impair the Firm's website or interfere with any other party's use of the Client Portal website. You may not obtain or attempt to obtain any materials or information through any means not intentionally made available or provided for through the Client Portal website.

Information Disclosure. The Firm reserves the right, at all times, to disclose any information as necessary to satisfy any applicable law, regulation, legal process, or governmental request, or to edit, refuse to post, or to remove any information or materials, in whole or in part, in the Firm's sole discretion.

Client's Responsibility. You must at your own cost (a) provide for your own access to the Internet and pay any services fees, connection charges, and online services usage associated with such access and (b) provide all equipment necessary for you to make such connection to the Client Portal, including a computer and modem.

Dispute Resolution. The parties agree that any dispute between the Commission and the Firm relating to this Agreement, or the breach of it, shall, if negotiations and other discussions fail, be first submitted to mediation in accordance with the applicable rules for resolving professional accounting and related services disputes of the America Arbitration Association. If the parties are unable to resolve the dispute through mediation within 60 days from the date notice is first given from one party to the other as to the existence of such a dispute and the demand to mediate, then they may proceed to resolve the matter by arbitration if this agreement provides that the particular dispute is subject to arbitration, or by whatever other lawful means are available to them if this agreement does not provide for arbitration of the particular dispute. Costs of any mediation proceeding shall be shared equally by all parties.

WARRANTIES. THE FIRM MAKES NO WARRANTY, EXPRESS OR IMPLIED, REGARDING THE EFFICACY OF THE SECURITY OF THE CLIENT PORTAL. THE CONTENT AND SERVICES ARE PROVIDED ON AN "AS IS" BASIS AND THE FIRM SPECIFICALLY DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, WARRANTIES OF MERCHANTABILITY, OR WARRANTIES AGAINST INFRINGEMENT. THE FIRM, ITS AFFILIATES, EMPLOYEES, AND AGENTS SHALL NOT BE LIABLE FOR ANY DAMAGES OR LOSSES, INCLUDING, WITHOUT LIMITATION, INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, OR PUNITIVE DAMAGES, RESULTING FROM OR CAUSED BY THE PORTAL, ITS CONTENT, OR SECURITY SERVICES PROVIDED HEREIN. THE FIRM DOES NOT WARRANT THAT THE CLIENT PORTAL'S FUNCTIONS WILL BE UNINTERRUPTED OR ERROR-FREE, THAT DEFECTS WILL BE CORRECTED, OR THAT THE FIRM'S CLIENT PORTAL OR THE SERVER THAT MAKES IT AVAILABLE ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS.

IF YOU ARE DISSATISFIED WITH ANY PORTION OF THE PORTAL, INFORMATION, DOCUMENTS, OR COMMUNICATIONS ON THE PORTAL, OR WITH ANY OF THESE TERMS AND CONDITIONS OF USE, YOUR SOLE AND EXCLUSIVE REMEDY IS TO CEASE USING THE PORTAL AND THE INFORMATION, DOCUMENTS, OR COMMUNICATIONS YOU OBTAINED FROM THE PORTAL.

Term and Termination. This Agreement and the services contemplated by it may be terminated by either the Firm or Client with or without cause and with or without notice at any time. The Firm may at any time terminate in whole or in part the Firm's Client Portal without notice or liability.

Authorized person to contact the Firm to request employee logon User IDs:

Name: _____

Title: _____

Email: _____

Should you desire to use alternate methods of transmission for sensitive documents and chose not to use the Firm's Client Portal System, you may opt out by signing the following release.

We acknowledge that we have opted out of the requirement to use the Firm's Client Portal System and therefore we agree to release Fechter and Company from all liability as a result any interception of, or loss of data as a result of using alternate document transmittal methods.

Management signature:	Governance signature:
_____	_____
Title: _____	Title: _____
Date: _____	Date: _____

Engagement Administration, Fees, and Other

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

We will provide copies of our reports to the Board of Directors of the Commission; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Fechter and Company and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to the California State Controller's Office or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for the purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Fechter and Company personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend or decide to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the California State Controller's Office. If we are aware that a federal awarding agency or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

Scott German is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them. We expect to begin our audit during September 2022.

Our fee for services will be at our standard hourly rates plus out-of-pocket costs (such as report reproduction, word processing, postage, travel, copies, telephone, etc.) except that we agree that our gross fee, including expenses, will not exceed $7,500. There will be an additional fee of $500 to prepare the Financial Transactions Report required by the State Controller's Office.

Amount due with the engagement letter	$ 1,000
Amount due following completion of fieldwork Including preparation of financial statements	5,500
Amount due upon issuance of final report	1,000
Amount due upon filing of the Financial Transactions Report	500
Total fees	$ 8,000

The above fee anticipates 2 bound copies of the final financial statements. Additional copies will be billed at $75 per copy. If you would like us to prepare and file the State Controllers Report we will invoice those fees upon filing.

Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes 30 days or more overdue and may not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

Reporting

We will issue a written report upon completion of our audit of the Commission's financial statements. Our report will be addressed to the Board of Directors of the Commission. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinions, add a separate section, or add an emphasis-of-matter or other-matter paragraph to our auditor's report, or if necessary, withdraw from this engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

We will also provide a report (that does not include an opinion) on internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements as required by *Government Auditing Standards*. The report on internal control and on compliance and other matters will state (1) that the purpose of the report is solely to describe the scope of testing of internal control and compliance, and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control on compliance, and (2) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The report will also state that the report is not suitable for any other purpose. If during our audit we become aware that the Commission is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with U.S. generally accepted auditing standards and the standards for financial audits contained in *Government Auditing Standards* may not satisfy the relevant legal, regulatory, or contractual requirements.

We maintain a license with the California State Board of Accountancy and will inform you in writing of any changes in the status in our license.

We appreciate the opportunity to be of service to Mono County Local Transportation Commission and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the attached copy and return it to us.

Very truly yours,

Fechter and Company
Certified Public Accountants

RESPONSE:

This letter correctly sets forth the understanding of Mono County Local Transportation Commission.

Management	**Governance**
Signature: _____	_____
Title: _____	_____
Date: _____	_____

Mono County
Local Transportation Commission

PO Box 347
Mammoth Lakes, CA 93546
760-924-1800 phone, 924-1801 fax
commdev@mono.ca.gov

PO Box 8
Bridgeport, CA 93517
760-932-5420 phone, 932-5431 fax
www.monocounty.ca.gov

Staff Report

June 13, 2022

TO: Mono County Local Transportation Commission

FROM: Bentley Regehr, Planning Analyst

SUBJECT: California Transportation Assessment Report, pursuant to Assembly Bill (AB) 285

RECOMMENDATIONS
Provide any desired direction to staff.

FISCAL IMPLICATIONS
None.

DISCUSSION
Assembly Bill (AB) 285 (Attachment 1) requires the California Department of Transportation to address in the California Transportation Plan (CTP) how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions of 40% below 1990 levels by the end of 2030 and how the CTP is consistent with air quality standards set forth in state implementation plans (SIPs). Beginning with the third update to the plan to be completed by December 31, 2025, the bill requires the Department of Transportation to include a forecast of impacts over a 20-year period on infrastructure, access, and transportation systems. The bill also required the Strategic Growth Council (SGC) to complete a report by January 31, 2022 (Attachment 2).

The assessment report concludes that California is not on track to meet its Greenhouse Gas (GHG) reduction targets and is likely to fall short of other important goals. Without additional action, the modeling shows that Vehicle Miles Traveled (VMT) could increase by 13 to 35 percent by 2050. The report does not examine differences between rural and urban needs, but focuses more on statewide reduction goals, as outlined in AB 285. The assessment attributes the gap between goals and attainment to the following findings:

1. The modern transportation dilemma originated from a focus on highway-centric construction in the 20th century. Communities and connections were constructed when different goals were in place.
2. The goals for transportation have expanded significantly over time, but their implementation has been uneven. Finding ways to harmonize goals and setting priorities for their implementation is an important but currently missing piece.
3. The gap between the climate-friendly state vision for transportation and the investments at the state and regional levels that continue to emphasize automobility might prevent the state from meeting its climate goals and other goals. A reason for the gap between the vision and its likely accomplishments is that funds devoted to new directions are limited. Regional and local transportation plans and funding programs appear to be frontloading highway capacity projects, many of which will increase VMT and emissions.

4. The institutional structure for designing and delivering transportation is highly decentralized, with responsibilities dispersed across many organizations at different levels of government. In California, the institutional structure is more decentralized than most. This results in a highly complex process for transportation decision-making.
5. While the 2050 goal sets an aspirational vision for transportation in California, its impact on investment decisions is modest because its assumptions are unconstrained and its scope is limited. The plan is unconstrained financially and its goals are broad. The plan does not specify how projects will be prioritized, nor does it discuss tradeoffs.
6. California Metropolitan Planning Organizations (MPOs) have more responsibility than comparable MPOs in other states but that added responsibility has not been matched with sufficient new resources or authority.
7. At the regional level, most MPOs continue to devote the bulk of their total spending toward auto investments, including capacity expansion and road operations and maintenance.
8. Local option, voter-approved sales taxes and have become a major source of funding for transportation in California, reducing the ability of state and regional agencies to steer investments and outcomes.
9. Existing funding programs have the flexibility to adjust spending to meet changed policy priorities, although this can be politically difficult.

Further analysis and background for the findings are contained within the attached report.

Several legislative bills have been introduced based on the SGC report, including AB 2237 and AB 2438.

- AB 2237: Would require a regional transportation planning agency or county transportation commission to rank projects in its Regional Transportation Improvement Program based on "adherence" to the state's climate goals and its most recent Sustainable Community Strategy (SCS), would also require the California Air Resources Board, in consultation with the California Transportation Commission, to review each project in the regional list for adherence to the state's climate goals or most recent Sustainable Community Strategy (under SB 375).
    - Rural Counties Task Force (RCTF), California State Association of Counties (CSAC), League of California Cities, and CalCOG are all reportedly opposing, or opposing unless amended, the legislation. Staff has informed RCTF that Mono County LTC also opposes the legislation. Committee procedure for this bill is unclear at this time.
- AB 2438: Would give the Administration unprecedented levels of control in setting priorities that apply to a broad array of transportation funding programs, both competitive and formula based, by requiring consistency with the Governor's Climate Action Plan for Transportation Infrastructure (CAPTI). CAPTI was developed explicitly to apply to the state's discretionary transportation funding, exclusive of local formula funding, including SB 1 formula funds.

ATTACHMENTS

1. AB 285
2. Assessment Report

Assembly Bill No. 285

CHAPTER 605

An act to amend Sections 14000.6, 65071, 65072.1, and 65072.2 of, and to add Section 65070.5 to, the Government Code, relating to transportation planning.

[Approved by Governor October 8, 2019. Filed with Secretary of State October 8, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

AB 285, Friedman. California Transportation Plan.

Existing law requires the Department of Transportation to prepare the California Transportation Plan for submission to the Governor and the Legislature, to complete the first update to the plan by December 31, 2015, and to update the plan every 5 years thereafter. Existing law requires the plan to consider various subject areas for the movement of people and freight, including environmental protection and quality of life. Existing law also requires the plan to address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050, and to identify the statewide integrated multimodal transportation system needed to achieve greenhouse gas emission reductions.

This bill would require the department to address in the California Transportation Plan how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions of 40% below 1990 levels by the end of 2030 and how the plan is consistent with, and supports attaining, all state ambient air quality standards and national ambient air quality standards in all areas of the state as described in California's state implementation plans required by the federal Clean Air Act. Commencing with the 3rd update to the plan to be completed by December 31, 2025, the bill would require the department to include a forecast of the impacts of advanced and emerging technologies over a 20-year horizon on infrastructure, access, and transportation systems and a review of the progress made implementing past California Transportation Plans. The bill would require the Strategic Growth Council to complete a report by January 31, 2022, that contains certain information with regard to the California Transportation Plan and other specified programs and planning requirements. The bill would add environmental justice to the subject areas that the plan is required to consider for the movement of people and freight.

The people of the State of California do enact as follows:

SECTION 1. Section 14000.6 of the Government Code is amended to read:

14000.6. The Legislature further finds and declares all of the following:

(a) California has established a statewide greenhouse gas emissions limit to be achieved by 2020 pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code), which is equivalent to 1990 greenhouse gas emissions in the state. Senate Bill 32 (Chapter 249 of the Statutes of 2016) extended the statewide greenhouse gas emissions limit to 40 percent below 1990 levels by 2030.

(b) Emissions from the transportation sector account for a significant portion of California's greenhouse gas emissions.

(c) In June 2016, the state released its transportation plan called California Transportation Plan 2040, which represented an important step toward integrating statewide long-range modal plans, key programs, and analysis tools that build on regional transportation plans, sustainable communities strategies, and rural land use visions. Yet more must be done to meet objectives of mobility and congestion management consistent with the state's greenhouse gas emission limit and air pollution standards.

(d) The Legislature intends that subsequent transportation plans improve transparency, interagency coordination, and the impact of California's transportation investments and planning to meet the objectives set forth in this section.

SEC. 2. Section 65070.5 is added to the Government Code, to read:

65070.5. For purposes of this chapter, "department" means the Department of Transportation.

SEC. 3. Section 65071 of the Government Code is amended to read:

65071. The department shall update the California Transportation Plan every five years consistent with this chapter. The second update shall be completed by December 31, 2020.

SEC. 4. Section 65072.1 of the Government Code is amended to read:

65072.1. The California Transportation Plan shall consider all of the following subject areas for the movement of people and freight:

(a) Mobility and accessibility.

(b) Integration and connectivity.

(c) Efficient system management and operation.

(d) Existing system preservation.

(e) Safety and security.

(f) Economic development, including productivity and efficiency.

(g) Environmental protection, air quality, and quality of life.

(h) Environmental justice.

SEC. 5. Section 65072.2 of the Government Code is amended to read:

65072.2. (a) The department shall address in the California Transportation Plan how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas

emissions to 1990 levels by 2020 and 40 percent below 1990 levels by December 31, 2030, as required by the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code), and how the plan is consistent with, and supports attaining, all state ambient air quality standards, as set forth in Section 70200 of Title 17 of the California Code of Regulations, and national ambient air quality standards, as established pursuant to Section 7409 of Title 42 of the United States Code, in all areas of the state, as described in California's state implementation plans required by the federal Clean Air Act (42 U.S.C. Sec. 7401 et seq.), taking into consideration the use of alternative fuels, new vehicle technology, tailpipe emissions reductions, ride sharing, vehicle pooling, and expansion of public transit, commuter rail, intercity rail, bicycling, and walking. The plan shall identify the statewide integrated multimodal transportation system needed to achieve these results.

(b) Commencing with the third update to the California Transportation Plan, the department shall include the following information in the plan:

(1) A forecast of the impacts of advanced and emerging technologies over a 20-year horizon on infrastructure, access, and transportation systems. For purposes of this paragraph, "advanced and emerging technologies" includes, but is not limited to, shared, autonomous, connected, and electric transportation options.

(2) A review of the progress made implementing past California Transportation Plans including, but not limited to, a review of actions taken in each region of the state to achieve the goals and policies outlined in the plan.

(c) (1) The Strategic Growth Council shall complete a report by January 31, 2022, and shall submit this report to the relevant policy and fiscal committees of the Legislature. The report shall contain all of the following:

(A) An overview of the California Transportation Plan and all sustainable communities strategies and alternative planning strategies prepared pursuant to paragraph (2) of subdivision (b) of Section 65080, and an assessment of how implementation of the California Transportation Plan, sustainable communities strategies, and alternative planning strategies will influence the configuration of the statewide integrated multimodal transportation system.

(B) A review of the potential impacts and opportunities for coordination of the following funding programs: the Affordable Housing and Sustainable Communities Program, the Transit and Intercity Rail Capital Program, the Low Carbon Transit Operations Program, the Transformative Climate Communities Program, and the Sustainable Transportation Planning Grant Program. The review shall be conducted in consultation with the agencies that administer these programs. The review shall include recommendations for the improvement of these programs or other relevant transportation funding programs to better align the programs to meet long-term common goals, including the goals outlined in the California Transportation Plan.

(2) The requirement for submitting a report imposed under paragraph (1) is inoperative on January 31, 2026, pursuant to Section 10231.5 of the Government Code.

(3) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

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CALIFORNIA STRATEGIC GROWTH COUNCIL

California Transportation Assessment Report

Pursuant to AB 285

(Friedman, Chapter 605, Statutes of 2019)

Strategic Growth Council Foreword
February 18, 2022

Dear Members of the Legislature,

The California Strategic Growth Council (SGC) is pleased to submit this summary report, "The California Transportation Assessment," to the State Legislature pursuant to Assembly Bill 285 (Friedman, Chapter 605, Statutes of 2019).

Prepared by the University of California Institute of Transportation Studies (UC ITS), the report offers an assessment of how transportation planning and funding in California supports long-term common goals, including building and maintaining a transportation system that advances State climate goals and meets the transportation needs of all Californians. In preparing this report, the UC ITS analyzed state and regional transportation plans and institutions, funding allocations to various state, regional, and local transportation programs and funding sources, and the legal frameworks that govern how transportation funds are spent in California.

Across California, transportation is one of the largest and most significant public investments. Over $30 billion is spent annually across California maintaining and expanding transportation. This "transportation system" is the result of plans and projects funded and implemented across federal, state, regional and local agencies. About half of the expenditures take place at the local level (i.e., local governments, transportation agencies, and transit systems). Importantly, local sales taxes account for over $6.6 billion annually, more than any other single state or federal transportation program. Yet, decisions on how to spend billions across federal, state, and local funds is critical to improving Californians' access to social and economic opportunity as well as to meeting climate commitments.

The transportation sector is the single largest contributor to California's greenhouse gas (GHG) emissions, accounting for over half of total emissions. Achieving climate commitments requires both reductions in GHG emissions through cleaner fuels and vehicles as well as reductions in driving, which is measured in per capita vehicle miles traveled (VMT).

As identified in the California Air Resource Board's (CARB) 2020 Mobile Source Strategy, even under the most aggressive scenarios for zero-emission vehicle (ZEV) adoption and a rapid transition to cleaner fuels, California simply cannot meet its climate commitments by relying solely on a shift in transportation technologies to cleaner modes such as zero emissions vehicles (ZEVs).

Additionally, the historic emphasis on prioritizing driving over other modes has created decentralized growth patterns that not only requires more driving to meet daily needs (which negatively impacts affordability), but also lead to more development on natural and working landscapes (which reduces their carbon sequestration benefit).

Moreover, overall growth in driving and vehicle miles traveled will continue to increase maintenance costs for the road network and state highway system. This is in addition to the induced vehicle travel and additional GHGs that would result from these projects. Maintaining a true commitment to the "fix it first" approach established in Senate Bill 1 (Beall, 2017) and maintaining the existing system before expanding it has never been more important given the challenges faced.

As a result, it will be critical to provide additional sustainable transportation options to reduce dependency on driving. This Administration is taking key actions to achieve these outcomes through a proposed $9.1 billion investment in the Governor's California Blueprint to expand mobility options for Californians and create a safer, faster and greener transportation system, including $4.2 billion to complete electrified high-speed rail construction in the Central Valley and $4.9 billion for transit and rail projects, climate adaptation, bicycle and pedestrian safety, and active transportation.

We recognize that there are different transportation needs across California's diverse communities and regions. And while one size cannot fit all places equally, we have core values as a State that can and should guide our transportation investments across all of California. We can provide communities with sustainable options to get around and reduce our dependence on driving as we also work to advance all the priorities and goals outlined in the California Transportation Plan 2050: safety, climate, equity, accessibility, quality of life and public health, environment, economy, and infrastructure.

In its review of the State transportation system, the UC ITS researchers identified significant progress in many areas. The Administration and Legislature have demonstrated their commitment to innovative programs that help communities meet multiple goals simultaneously by funding augmentations for the Transformative Climate Communities Program (TCC), the Active Transportation Program (ATP), and the Regional Early Action Planning Grants Program (REAP), as well as additional support for Greenhouse Gas Reduction Fund programs such as the Affordable Housing and Sustainable Communities Program (AHSC), the Transit and Intercity Rail Capital Program (TIRCP), and the Low Carbon Transit Operations Program (LCTOP). The ongoing investment in High-Speed Rail

is laying the groundwork for a sustainable and equitable carbon-neutral future by not only building a State backbone of fully electrified clean rail, but also bringing economic investment to the core of communities that have for too long experienced disinvestment.

Our partners at the regional and local level are also thinking big by proposing investments and major upgrades to regional transit and rail systems, as well as taking on a larger role in land use and housing, exploring road pricing, and increasing investments in active transportation. There is a growing vision across California of the need to shift the transportation system towards more sustainable modes – from internal combustion engines to zero emission vehicles; from single-occupant to shared; from truck to rail in the freight system; and from driving long distances between destinations to shifting land uses so that more daily needs are located within existing communities and neighborhoods, or even a short walk from home.

And while there is great progress in some areas, too many of investments fail to move towards—and often still move away from—this vision. Roadway designs still prioritize mobility for cars over other modes and make it unsafe to walk and bike, especially in areas with insufficient pedestrian and bicycle infrastructure. Highway widening projects across the state continue to get built even though adding auto travel lanes has rarely succeeded in reducing congestion, leads to induced vehicle miles travelled over the long term, and in some cases worsens congestion.

While there are additional funds for transit, buses still get stuck in traffic as they compete with private vehicles for priority space on streets. There are improvements to the user experience for transit riders such as more seamless payment systems and integrated fares through the California Integrated Travel Project (Cal-ITP), but barriers remain to getting all operators on board with these new systems and riders too often get stuck when different bus or rail systems are not well coordinated at transit stations. All of this makes travel times on transit uncompetitive with driving.

We can and must do better.

The report submitted herein is a summary of five papers produced by some of the State's leading transportation researchers. Those papers outline the history of the current transportation system in California, analyze key aspects of transportation planning and funding in California today, and identify areas for improved alignment with long-term common goals.

This report also builds on and supports the policy direction in numerous current state reports and processes, including:

- The California State Transportation Agency's (CalSTA) Climate Action Plan for Transportation Investment (CAPTI),
- California Air Resource Board's Scoping Plan and SB 150 report,
- High Speed Rail Authority's (HSRA) Business Plan and Sustainability Report
- California Department of Transportation's (Caltrans) California Transportation Plan 2050 (CTP 2050).

In our view, there are several key messages policymakers and other readers should take away from this report:

- First, there is a **gap between the vision for a more climate friendly and equitable transportation system and actions and infrastructure spending decisions.** The climate and equity-focused programs listed for analysis in AB 285 represent only about two percent of overall transportation spending. At the same time, a significant share of funds at the state, regional, and local levels continue to be spent on adding highway lanes and other projects that increase vehicle travel. This funding not only adds to the maintenance burden of an aging highway system but also means less available funding for other investments that might move more people (such as running more buses or prioritizing their movement) without expanding roadways or inducing additional vehicle travel and provide Californians with more options to meet daily travel needs. Additionally, in most situations, particularly in urban areas, adding highway lanes will not achieve the goals they were intended to solve (such as reducing congestion) as new highway capacity often induces additional vehicle travel due to latent demand that then undermines any congestion relief benefit over time. Critically, these projects also add burdens to already impacted communities along freeway corridors with additional traffic and harmful emissions, and by further dividing and often displacing homes and families in neighborhoods that were segmented by freeways decades prior.

- Second, **projects in the pipeline are rarely reevaluated to assess their alignment with current state priorities.** Transportation projects can take decades to move from conception to construction. Over that time frame, State priorities and solutions adjust, such as the shift from congestion relief through road widening to better managing the

system through pricing and providing more multimodal options. As a result, many transportation projects in the funding pipeline at the State, regional, and local level are no longer the best candidates to advance State climate or equity objectives. But without reevaluating both these prior commitments as well as longstanding funding programs, transportation agencies will continue to fund projects for decades to come that undermine some of the state's current goals and commitments. Further, in order to see different outcomes from the transportation system there is a need for a broader set of integrated and multi-modal policy goals to both existing and new funding programs.

- Third, the **institutional structure for transportation is complicated** and decision-making levers can be disparate or hard to pinpoint. The State has numerous transportation plans, many of which do not align with each other. There are numerous institutions at State, regional, and local levels and each have a role to play in setting the vision for transportation and delivering transportation projects. The fragmentation of actors and decision-makers makes it difficult for the public, and especially for underserved communities, to fully engage with transportation decisions or to hold specific institutions accountable for their actions. It also makes it hard for public agencies to hold themselves accountable as the required plans do not shape spending while authorities and responsibilities for tracking outcomes are divided across many geographies and levels of government.

- Fourth, **institutions (such as Metropolitan Planning Organizations, among others) that have been given key responsibilities for meeting climate and equity goals do not necessarily have the appropriate levers to fulfill those responsibilities.** For example, California has delegated more planning responsibilities to its regional partners at Metropolitan Planning Organizations (MPOs) than other states. Yet California's MPOs' authorities are not always consistent with the goals set for them. This is in part because MPOs must work within parameters set by local partners (i.e., local government land-use decisions) and inputs they must include in their plans (i.e., local county transportation sales tax measures and existing land use patterns). The MPO has little control and no effective oversight over whether those local funds or land use actions help accomplish regional and State goals. Further, today's adopted regional plans include more funding for roads and overall automobility relative to transit and active transportation, even

as the State requires regions to develop plans that reduce GHG emissions, primarily from reductions in VMT.

- Lastly, **work has already begun to align transportation funding with state climate and equity goals**, namely the CalSTA-produced Climate Action Plan for Transportation Infrastructure (CAPTI) and some of the regional plans, including the Metropolitan Transportation Commission's (MTC)Plan Bay Area 2050 and the San Diego Association of Governments' (SANDAG) San Diego Forward. Further, the additional infrastructure funds from the federal government and state investments provides a once-in-a-generation opportunity to reimagine the transportation system in a way that meets the needs of Californians while prioritizing benefits to the most underserved communities.

The above findings are derived from the UC ITS assessment of the transportation landscape in California. The UC ITS team also identifies promising avenues and recommendations to respond to these findings.

In particular, we wanted to highlight a few areas where we especially see opportunities to partner with the Legislature and other stakeholders to further develop actionable solutions around the following topic areas:

1. **Aligning existing funding programs with State goals.** This could involve reviewing and prioritizing various state goals within transportation funding program guidelines or statute. For example, the statute that governs State Highway Operation and Protection Program (SHOPP) and State Transportation Improvement Program (STIP) funding has its goals based on rehabilitation and maintenance, safety, operations, and expansion, but no reference to climate or equity. This revisiting of goals could also involve ensuring that additional funds or future funds (including federal infrastructure funds) are spent in ways that align with priority goals.

2. **Updating and better aligning among existing state and regional plans.** This could include strengthening or modifying the California Transportation Plan (including adding a fiscal constraint analysis) and finding opportunities to further align the CTP with other state modal plans and the Regional Transportation Plans (RTPs)/Sustainable Community Strategies (SCSs).

3. **Reevaluating project and program funding and reviewing the current transportation project pipeline.** This should involve revisiting projects

currently in the planning and development pipeline to ensure they align with the State's goals, will deliver long-term benefits for Californians, and reduce harms to burdened communities. This could also involve exploring opportunities to augment overall transportation spending, reevaluating expenditures within current programs, reimagining planned projects, and/or increasing funding for specific programs that meet multiple goals.

4. **Assessing the roles of State transportation institutions.** This would involve exploring the roles and responsibilities for planning and delivering transportation projects across CalSTA, Caltrans, and the California Transportation Commission (CTC), as well as reviewing and clarifying the roles of related agencies (e.g., CARB and SGC) to ensure alignment of decisions with State goals and increase transparency and clarity of responsibilities to the public. This could include making recommendations for changes and clarifications to the institutional roles.

5. **Assessing MPO and local government roles and responsibilities.** This could involve a review of the specific authorities and institutional structure of MPOs to ensure they have appropriate tools to effectively accomplish what is expected of them, such as giving MPOs a greater role in reviewing local land use and transportation actions.

Looking ahead into 2022, the Strategic Growth Council is committed to working with a range of stakeholders to further flesh out and develop implementation actions around these topics that respond to findings in the UC ITS report.

In approaching the report, it is important to clarify that though commissioned and reviewed carefully by SGC, this report is ultimately the work product of the UC Institute of Transportation Studies. The analysis and recommendations included in the attached report are not the official stance of the Strategic Growth Council nor the Administration. It is also a point-in-time document that was undertaken primarily in 2021 based on the available literature, interviews, and other materials when it was written.

SGC would like to thank the State Legislature for this opportunity to conduct a deep dive into the complexities and opportunities in the state transportation system. We would also like to thank the UC ITS authors for their expertise and analysis, as well as our colleagues– most notably staff at CalSTA, Caltrans, CTC, HSRA, CARB, and Office of Planning and Research -- for their expertise and guidance throughout this process. In addition, we want to thank our partners

across the 18 Metropolitan Planning Organizations and the many individuals and organizations who contributed expertise, input, and perspectives throughout this process, including during interviews with the UC ITS team.

We look forward to continuing to leverage everyone's collective expertise to work towards our goal of a more sustainable and equitable transportation system for all Californians.

Regards,

Lynn von Koch-Liebert
Executive Director,
California Strategic Growth Council

Evaluation of California State and Regional Transportation Plans and Their Prospects for Attaining State Goals

SUMMARY AND SYNTHESIS

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December 2021

Berkeley Institute of Transportation Studies
ITS UCDAVIS INSTITUTE OF TRANSPORTATION STUDIES
UCLA Institute of Transportation Studies
Berkeley Law

Evaluation of California State and Regional Transportation Plans and Their Prospects for Attaining State Goals

This research was conducted with funding, in part, from the State of California Strategic Growth Council. The opinions expressed herein are those of the authors and not necessarily those of the Strategic Growth Council.

WHITE PAPERS IN THE SERIES INCLUDE:

A Brief History of Transportation Policies and Institutions

Statewide Transportation Plans for California

MPO Planning and Implementation of State Policy Goals

Examination of Key Transportation Funding Programs in California and Their Context

Flexibility in California Transportation Funding Programs and Implications for More Climate-Aligned Spending

1. Purpose of This Report

Assembly Bill (AB) 285 (Friedman, 2019) requires the California Strategic Growth Council (SGC) to submit a report to the Legislature by January 31, 2022, that includes the following:

- An overview of the California Transportation Plan (CTP).
- An overview of all regional Sustainable Communities Strategies (SCS) and any alternative planning strategies, as needed.
- An assessment of how the implementation of the CTP and regional plans "will influence the configuration of the statewide integrated multimodal transportation system."
- A "review of the potential impacts and opportunities for coordination" of key state funding programs," to be conducted in consultation with the administering agencies.
- Recommendations for the improvement of these programs or other relevant transportation funding programs to better align the programs to meet long-term common goals, including the goals outlined in the CTP.

In spring 2021, the SGC contracted with the University of California (UC) to provide materials supporting its report to the Legislature. Researchers at the UC Berkeley Institute of Transportation Studies (ITS), UC Davis ITS, UCLA ITS, and Berkeley Law joined forces to prepare a series of papers to provide the evidentiary basis for the project. The UC Berkeley principal investigator coordinated the work and prepared this final summary report.

The report is based on findings from the professional and academic literature, a detailed analysis of the identified plans and programs of concern, meetings with staff of the agencies whose plans are being reviewed, feedback from briefings and presentations on draft findings, and nearly 100 hours of individual interviews with stakeholders across California.

2. Background

California has adopted ambitious goals for its transportation systems. The state has pledged to reduce greenhouse gas (GHG) emissions by 40 percent compared to 1990 levels, and by 80 percent by 2050, and also has committed to achieve carbon neutrality by 2045. With transportation California's biggest emitter of GHGs, substantial changes in transportation vehicles, fuels, operations, and user choices must be achieved to meet the state's emission reduction targets.

Climate change targets are urgent because without major action over the next three decades, global temperatures are projected to rise by 2.5 °C to 4.5 °C (4.5 °F to 8 °F) by 2100. Such temperature increases would have catastrophic effects on global health and safety and on the economy. Severe storms, floods, drought, and wildfires would become more frequent, and oceans would rise, threatening coastal cities. Because GHGs build up in the atmosphere and persist for long periods of time, some climate change is inevitable, absent a major technological breakthrough in carbon capture technologies. For these reasons, aggressive action using available emission reduction techniques is considered the best way forward.

Although climate change is a global issue, state governments have the power to alter GHG emission patterns significantly using their legal, regulatory, and planning authorities. By offering leadership, California can show the way for other states and countries to lower emissions and, in many cases, establish partnerships with others. In addition, many measures that reduce GHG emissions have important co-benefits. For example, cleaner vehicles and fuels reduce exposures to dangerous pollutants, and transportation alternatives offer healthy travel choices.

As pressing as climate change goals must be, other goals remain important. California has pledged to maintain its transportation infrastructure in a state of good repair, provide for safe operations, support economic development, meet state and national ambient air quality standards, protect the state's natural environment, and coordinate urban transportation with housing policies, and do so in a way that is equitable for all and improves quality of life. This ambitious set of goals places considerable responsibility on transportation planners and decision-makers.

A series of state initiatives has moved the state toward zero-emission vehicles (ZEV), cleaner fuels, and transportation and land use measures that reduce vehicle miles traveled (VMT). Nevertheless, a 2018 assessment by the California Air Resources Board (CARB) found that the State of California is at risk of missing its 2030 GHG emissions reduction target for transportation-related emissions, in part due to increases in VMT. Since then, CARB has taken steps to tighten its requirements, the California Department of Transportation (Caltrans) has updated its plans and planning guidance, and metropolitan planning agencies (MPO) and their partners (transit agencies, county transportation commissions, cities) have updated their plans and programs, which include both transportation and land use elements. However, concerns remain that unless the planned actions are expeditiously implemented and effective, emission reduction targets will still be missed.

California's transportation plans for the most part have been developed in a context of anticipated growth in population and the economy. In a business-as-usual context, such growth is associated with increases in travel. Nationwide, for example, the Federal Highway Administration (FHWA) has projected that VMT will continue to increase as the result of population increases, rising disposable income, increased GDP, growth in the goods component of GDP, and relatively steady fuel prices. For California to buck these trends would require a large-scale, concerted effort.

The COVID-19 pandemic has added considerable uncertainty to transportation planning. It disrupted daily life and led to massive reductions in travel, with shared ride modes hit especially hard, and a significant portion of the population out of work or working from home. California's population actually dropped slightly, due in part to COVID deaths, and the number of jobs declined. As recovery from the pandemic occurs in fits and starts, whether and to what extent pandemic-induced changes will persist remains in question. Population growth appears to have resumed, and job recovery has been strong. Major issues include whether telecommuting and e-commerce will remain popular and whether avoidance of shared modes will continue. Recent nationwide data from the federal government indicates that trip making has already returned to pre-pandemic levels, and VMT for both passengers and freight are almost back to previous highs. Transit use is recovering much more slowly.

While uncertainties about past assumptions create concerns about plans for the future, new possibilities for positive change are also on the horizon. Climate-friendly transportation options, from high-speed rail to hydrogen-powered buses and freight vehicles to bike sharing, are being added to the transportation mix. Transportation vehicles and fuels that promise greatly improved energy and emissions performance are being developed—vehicle electrification and automation are examples. Operations strategies that reduce congestion without requiring road widening are becoming available. How fast these technologies will be widely available and used is unclear, but their potential needs to be considered in plans that aim to steer actions for the next 20, 30, or even 50 years. How these factors are dealt with in plans can make a difference in the implementation policies chosen and in how well the plans comport with actual experiences in the future.

The UC team has evaluated California's state and metropolitan transportation plans, financing for transportation, and legal framework in this broad and uncertain context, also taking into consideration the legacies of successive transportation technologies and the institutions that shaped and were shaped by them.

3. Research Methods

The UC team carried out its work based on 1) a review and analysis of previous research on the topic, including government reports and assessment documents as well as scholarly literature; 2) discussions with SGC staff and the staff of state agencies involved in transportation planning and related activities in California; 3) interviews with nearly 100 key informants; and 4) feedback on presentations of the work and review of drafts, on which nearly 300 comments were received. A series of white papers was prepared to address the topics called for in AB 285.

4. Organization of This Summary and Synthesis Report

Section 5 of this report summarizes the key findings of each white paper, which address the following questions:

- How is transportation shaped by the technology it uses and the institutions developed to deliver transportation services? What are the issues when policies and priorities change?
- How do the California transportation plan and other key statewide transportation plans shape the state's transportation systems? How does new technology figure in the plans? What do stakeholders think about the plans?
- How do MPO plans and their Sustainable Communities Strategies shape transportation in California? How are plans translated into projects?
- How does California's approach to transportation finance affect goal attainment?
- What are the legal issues in pursuing new priorities in transportation?

Section 6 presents the UC authors' recommendations for changes to policy and practice that could improve overall system performance and achievement of state goals for climate, equity, environment, safety, infrastructure, and the economy.

5. Summaries of the White Papers

These are the key findings of each white paper.

WP 1: A Brief History of Transportation Policies and Institutions

This paper presents a brief history of transportation policies and the institutions that shape them in the United States, with special attention to the California case. The white paper also discusses the issues associated with changing organizational culture to better respond to the problems of the times.

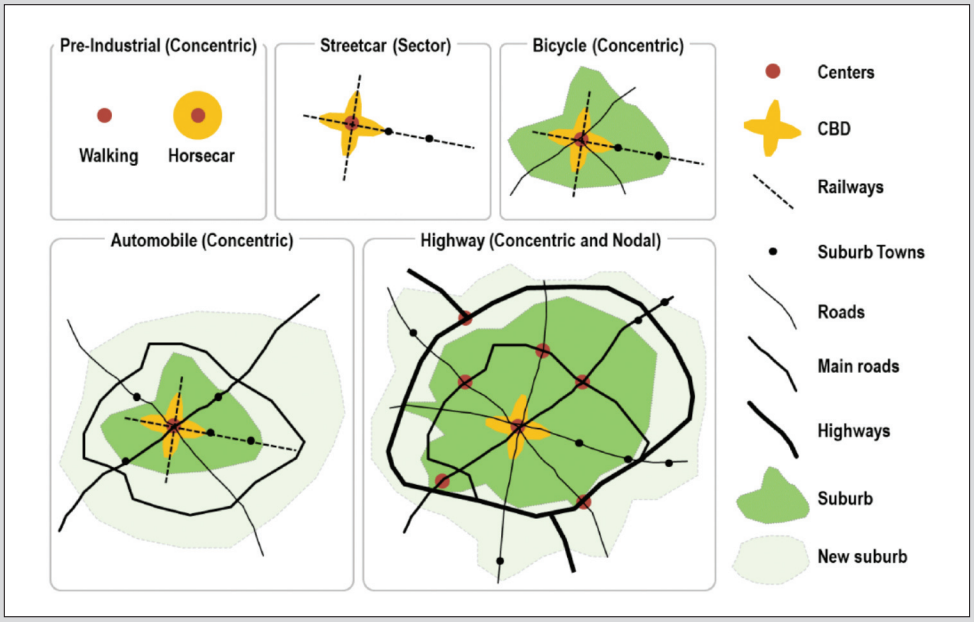

Figure 1. Evolution of urban form with respect to mobility and land use

Source: Jean-Paul Rodrique, 2013

Transportation systems reflect the economic, political, technological, and cultural conditions of their time, as well as the specific context in which they operate. California's transportation systems have largely mirrored those of the rest of the United States, but California also has led the way on several issues, including combatting climate change.

Over the years, the expectations for transportation providers have expanded, from an early focus on designing and building infrastructure to provide for mobility, access, and economic growth, to a broader set of responsibilities that emphasize managing multimodal transportation facilities in a way that maintains and promotes a healthy environment, a vibrant economy, and social equity.

Economic development and the provision of fast, safe, and efficient transportation were the main policies driving transportation planning and investment in the United States from the earliest years of colonial settlement until quite recently. Building the system was the highest priority. As transportation networks became widely available, attention

began to shift to operations and maintenance and to reducing the adverse impacts of transportation facilities and services. Today, while efficient project delivery remains important, new social and environmental goals have gained prominence.

The organizations and planning processes devised to deliver and manage transportation systems reflect the problems, opportunities, and cultural beliefs of the time of their creation. When the mission to build was dominant, the country's engineering skills were tapped, and military organization and management models shaped the public and private organizations that built highways and railroads. Over time, additional institutions were established to handle problems in management. Regulatory agencies were formed to prevent private operator price gouging and other unfair practices. Commissions were established to oversee bureaucracies and infuse a business-like culture of cost management and efficiency into public transport projects. Metropolitan planning organizations were established to give urban areas greater say over the projects being built within their borders, and in nearly three-quarters of the states, ballot-box measures were introduced to allow the people to have a direct say in prioritizing investments. Highway departments became transportation departments when federal government grants began to flow for transit and intercity modes and political leaders clamored for a balanced transportation system. And lately, partnerships among transportation, housing, and environmental officials have been established to better coordinate development efforts and improve their performance.

While transportation institutions grew more complex, with more organizations involved and more responsibilities to be carried out, in many instances transportation organizations were slow to fully respond to changes in technology, policy, and community values, or even openly resistant, clinging to preferences for building projects over managing systems and treating social equity and environmental mandates as constraints or secondary issues rather than as cause for redirection. In such instances, merely changing assignments of responsibility is unlikely to be sufficient. Rather, an explicit change strategy aimed not only at operational practices but also at the organization's social and human resource elements is needed.

Today, the road systems first envisioned nearly a century ago are largely built out, and attention has increasingly turned to providing more choices to travelers, including those who cannot drive a car, and in improving equity and the environment so that all can experience a high quality of life while maintaining and expanding prosperity and continuing to improve health and safety. With a mature and extensive network of highways in place, greater attention is being given to maintenance and rehabilitation and to managing and operating highways using new technologies and methods, including telecommunications, sensors, information technologies, automation, and control systems. Technological advances are already offering new services that blur the distinctions between public and private, transit and auto. Other transport modes are still developing, including micromobility options, on-demand services, driverless vehicles, and smart highways.

California Lane Miles by Roadway Class	
Interstate	14,925
Arterials and collectors	153,503
Local streets and roads	235,927
Total	404,355

Source: Highway Performance Monitoring System as reported in CTP 2050, p. 43

The changes in context present both challenges and opportunities. The COVID-19 pandemic has disrupted traditional ways of going to work, shopping, and socializing for many and added to the uncertainties about the future. Disruptions in air travel, sharp losses of transit riders, a five-fold increase in telecommuting, and a substantial increase in e-commerce have occurred, and while there has been some recovery, it is unsteady and uneven. It remains to be seen whether and to what extent the changes that the pandemic imposed will be lasting.

The recognition of global warming as a crisis with deadlines has been slow in coming, but is now a top priority for California. Likewise, past practices that have disproportionately harmed people of color and left out low-income individuals and households have finally been acknowledged. Acceptance of the need for policy change is leading to new efforts to remediate problems and deliver equitable programs and services. Transportation agencies continue to have important roles as designers and builders, but today attention also must be given to social and environmental considerations as well as transportation planning, management, and operations issues. Organizational change is needed to support this broader set of goals.

Over the past several decades, California has created a complex institutional structure for dealing with this broad set of goals and objectives. The state DOT, Caltrans, is responsible for the state highway system, prepares a state transportation plan and modal plans, and programs interregional projects (the projects that will be developed and funded), but notes that it fills the gaps between the regional plans and does not mandate policy changes or specific actions at the regional level. Caltrans reports to a cabinet-level transportation agency (CalSTA), but also responds to the state Transportation Commission, which develops fund estimates and guidelines and approves the state and regional programs. California MPOs have been given greater authority than in most states over the projects selected for programming for their regions, but they are expected to incorporate County Transportation Authority programs over which the MPOs have little say. The MPOs have been assigned responsibility for implementing Sustainable Communities Strategies—transportation and land use strategies designed to meet ambitious GHG reduction goals—but not the authority to require cities and counties to implement them. Some MPOs have been using funds over which they have discretion to incentivize local action, but such funds are limited. With this large and complicated organizational structure and its decentralized responsibilities, it can be very difficult for anyone to steer investments in a different direction. Because of the multiple signals that transportation agencies receive, it can be even more difficult to change transportation agencies' culture—their views of what needs to be done.

It now appears that transportation is on the cusp of another technological revolution. For California, this is coming shortly after the state increased its funding for transportation and just as the federal government has also stepped up its transportation funding. The disruptions being created by technological change and the pandemic, coupled with new planning imperatives established in legislation and executive orders, open up opportunities to rethink institutional arrangements, assignments of responsibility, staffing, funding, and planning processes for transportation. Used strategically, the new funding can create opportunities for creative change.

WP 2: Statewide Transportation Plans for California

This paper, in three parts, reviews the most recently adopted California Transportation Plan (CTP 2050) and other key transportation plans adopted by state agencies (Part 1). The paper also discusses the special attention given to new technologies in the CTP (Part 2) and presents the findings from over 80 interviews with stakeholders across California who were asked to weigh in on the strengths and weaknesses of the state's transportation plans and planning practices (Part 3). The state plans' prospects for delivering an integrated transportation system that meets state goals are assessed, and ways to strengthen the plans and their efficacy are outlined.

The analysis of the key state transportation plans was framed by definitions of integrated multimodalism as put forth in the scholarly literature and presents our own assessment of the plans' strengths and weaknesses.

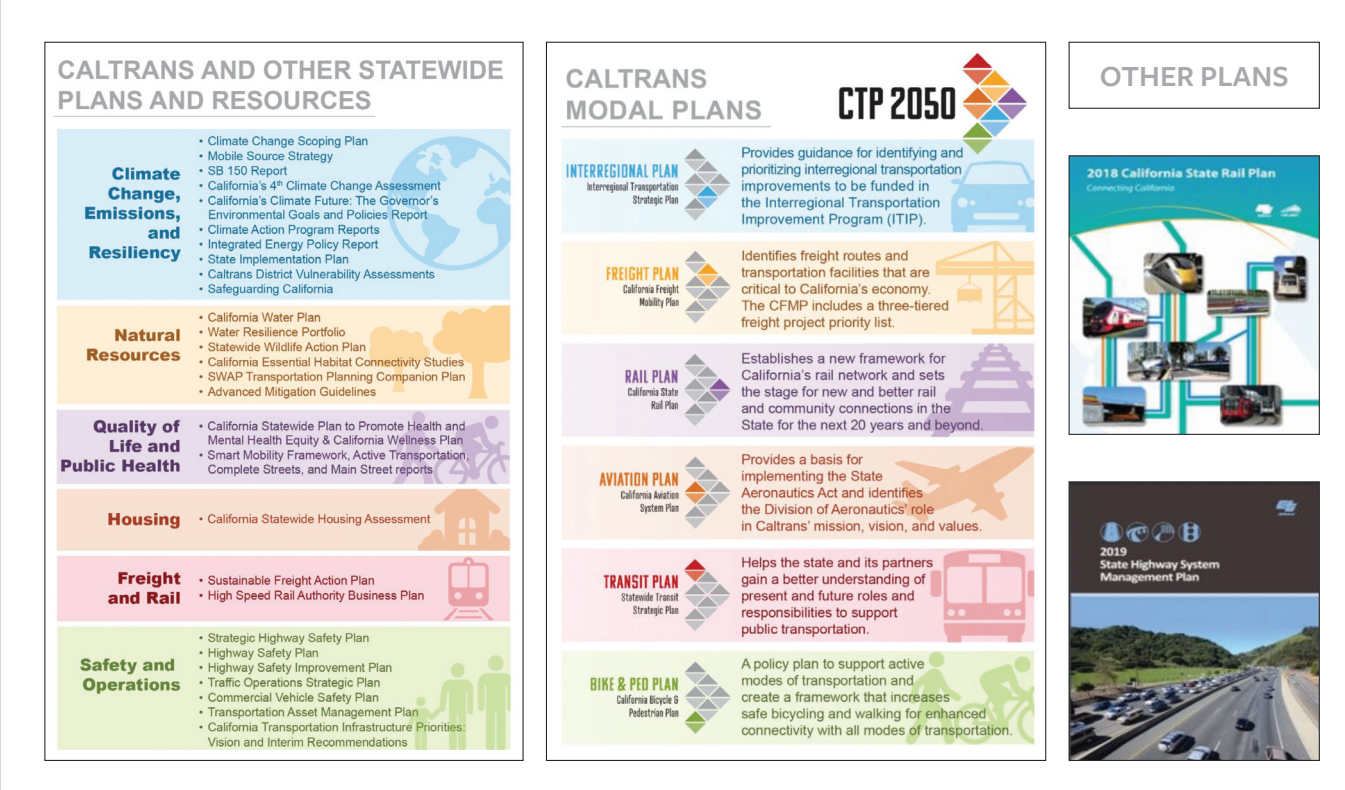

Figure 2. CTP and related plans

We found that the CTP sets forth an ambitious, multifaceted vision and eight interrelated goals for California's transportation systems:

- **Safety**—Provide a safe and secure transportation system
- **Climate**—Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **Equity**—Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **Accessibility**—Improve multimodal mobility and access to destinations for all users
- **Quality of life and public health**—Enable vibrant, healthy communities
- **Environment**—Enhance environmental health and reduce negative transportation impacts
- **Economy**—Support a vibrant, resilient economy
- **Infrastructure**—Maintain a high-quality, resilient transportation system

The CTP was developed by drawing on scenario analyses designed to explore how well various courses of action would achieve the articulated goals. The analyses included a baseline scenario that assumed that the plans in place would be implemented, a scenario focusing on land use, a scenario focusing on transportation strategies, and a combined package

of land use and transportation strategies. The strongest performance came from the combined package of strategies, and the CTP consequently presents recommendations and action items that would pursue both land use and transportation actions.

A key finding from the scenario analyses is that even with the combined scenario and all current regional transportation plans and state plans implemented, aggressive ZEV implementation would be needed to achieve the mandated emissions reductions by 2050. The analyses show that most of the emissions reductions come from new vehicle technologies and only a small amount stems from other transportation investments.

It is important to note what the CTP 2050 does and does not aim to do. As it states, "The CTP does not contain projects, but policies and strategies required to close the gap between what the regional transportation plans (RTP) aim to achieve and how much more is required to meet 2050 goals." In addition, while the CTP draws on the state's modal plans and the RTPs, it does not amend them. The CTP will inform the next round of modal plans, but "does not attempt to modify or prioritize project spending at the regional level." These are significant limitations on the CTP's ability to change transportation policy directions.

The CTP is intended to be supplemented by stand-alone documents that elaborate on the strategies considered, the analysis conducted, the planning process, funding options, and implementation strategies. However, while the financing element and the implementation element are the most salient to this review, the financing element is in draft form, and the implementation element has not been released as of the time of this writing (Dec. 2021).

We also briefly reviewed California's interregional, rail, and bicycle and pedestrian modal plans as well as a draft transit plan (not released by Caltrans). Except for the interregional plan, these plans predate the CTP 2050 and are scheduled to be updated soon. The plans we reviewed, while covering nearly 1,000 pages, barely scratch the surface: The six modal plans plus the CTP amount to almost 1,600 pages and the additional related plans listed in the CTP add thousands of more pages.

The modal plans list additional recommended actions, including ones that would fill gaps and support multimodal and multi-operator travel, such as fare cards that work for bikeshare as well as transit, transit passes that work on systems throughout the state, and coordinated, pulsed transfers between regional rail systems and intercity rail.

CTP and Modal Plans

Title	# Pages
California Transportation Plan 2050	137
Interregional Transportation Strategic Plan 2021	73
California State Rail Plan 2018	309
Statewide Transit Strategic Plan (unreleased draft) 2017	269
California Bicycle & Pedestrian Plan 2017	84
California Freight Mobility Plan 2020	312
California Aviation System Plan 2021	396
Total pages	1,580

Assumptions about technological change, including ambitious plans for the production and uptake of connected and autonomous vehicles, are key factors in emission reductions in the CTP 2050 and the modal plans. For example, autonomous trucking, platooning, and intelligent transportation systems are identified as ways to significantly improve freight operations and capacity; zero-emission trucks would reduce emissions and exposures, and alternative last-mile deliveries, such as drones and other automated delivery technologies, would reduce local truck traffic. The application of text analysis software in Part 2 of this white paper confirmed just how frequently the plan depends on technological advances, including ZEVs, connected and autonomous vehicles, and goods movement innovations, measures that are only partially transportation agencies' ability to implement. In the CTP, out of 127 pages of the document, 31 pages mention new technologies, with the greatest emphasis given to electric and autonomous vehicle technologies. While these technologies are viewed as the most promising ways to reduce emissions, and the automation elements are expected to improve safety, the CTP notes that an emphasis on new vehicle technologies could also lead to increased motor vehicle use, VMT, and congestion unless carefully regulated. Assumptions in the plan are consistent with state laws and executive orders with regard to timing of sales, but assumptions about vehicle costs and rate of uptake are not discussed in any detail.

For Part 3, over 80 interviews were conducted with experts in the field and other stakeholders to gain additional views of the plans and planning process. The interview respondents included current and former elected officials; federal, state, regional, and local agency leaders; advocates for low-income and minority communities; transportation, land use and environmental experts; developers and builders; economic development specialists; and representatives of nonprofit organizations specializing in civic, business, and environmental issues. Each interview lasted 45 minutes to an hour and was designed to allow the discussion to focus on topics of greatest interest and concern to the respondent. Respondents were offered anonymity so that they felt free to speak frankly. Interview notes were summarized, and highlights were extracted and categorized by key issues raised. The resulting compilation formed the basis for the analysis presented here.

A key finding is that **most of those interviewed were appreciative of the progressive goals and objectives laid out in the CTP 2050, but they also were disappointed that the plan did not provide a more explicit way forward**. State modal plans received mixed reviews, with some seen as offering concrete strategies and others remaining largely aspirational. Specific criticisms of the CTP 2050 was its lack of an implementation plan with clear assignments of responsibility, performance measures, and deadlines for achievement; lack of a clear funding plan; insufficient attention to modal competition and markets for various services; and heavy reliance on regional and local action as well as the actions of other organizations to achieve goals. In addition, many commented that the assumptions about technological innovation and its diffusion were highly optimistic, as were assumptions about transit expansion and telecommuting. While recognizing that the CTP 2050 is fiscally unconstrained and is not expected to propose specific projects, many of those interviewed felt that this made it possible to avoid hard issues. They recommended supplementing the aspirational plan with an alternative that illustrates what can be done with existing and reasonably anticipated funding and legal authorities.

Many of those interviewed were concerned that **the plans do not acknowledge that goals can be in conflict and do not lay out clear priorities among goals or strategies for dealing with conflicts**. Many noted that institutional complexity and internal resistance to change can be a barrier to effective planning, especially when multiple priorities are in effect. Several commented that the current institutional structure gives the state and regional agencies only limited ability to steer investments. Interviewees further commented that contextual differences in user needs, available transportation services, and barriers faced were glossed over in the plans.

Explicit strategies for coordinating economic development and housing with transportation s frequently mentioned as a planning gap. In addition, the sheer number of plans, their length and repetition, and disjointed timing were seen by many as making it impossible to get a full picture of transportation today or as proposed for the future and harder to participate meaningfully in transportation planning processes.

Regional plans and spending programs were flagged as key factors that could significantly affect attainment of the transportation goals set out in state legislation and executive orders. The CTP 2050 relies on the state's many RTPs to establish much of the direction for the next 30 years, but the implementation is problematic for some elements of the RTPs. Regional plans are supposed to be fiscally constrained, but they also make numerous assumptions about technology, expanded transit services and bike and pedestrian infrastructure, road pricing, mobility innovations, and smart growth policies. Funding for the transit, bike, and pedestrian elements is in short supply, authority to implement road pricing is uncertain, and for some facilities, would depend on federal as well as state, regional, or local approval, and pricing and land use changes are controversial and might not win the support needed to proceed as proposed. Thus, like the policies in the CTP 2050, many RTP policies and priorities are aspirational and will be difficult to achieve absent additional funds and grants of authority. In addition, as the CTP 2050 notes, continued capacity increases in regional and county plans and spending programs are likely to increase VMT and emissions and spread out development, making it more difficult to achieve mandated emissions reductions and, over the longer term, requiring increased spending on maintenance.

The review found that the state plans present aspirational and inspiring goals, but are weak on implementation. They depend heavily on technology advances in vehicles and fuels for goal attainment and are both dependent on and to some extent constrained by regional plans for other content.

WP 3: MPO Planning and Implementation of State Policy Goals

California's 18 MPOs, federally mandated regional transportation planning agencies operating in the state's urban regions, play a central role in planning and programming transportation projects. This white paper, presented in two parts, first examines MPOs' role in the state's decision-making and governance structure for transportation, considering how and whether MPOs are helping achieve state goals for climate protection and sustainability. It then compares regional transportation planning and regional transportation funding programs using a detailed analysis of long-range regional transportation plans (RTP) and short-range transportation improvement programs (TIP) for five California MPOs.

California assigns more responsibility to its MPOs than most other US states. In California, MPOs plan and program all transportation projects in urban areas through their periodically updated long-range (20+ year) RTPs and shorter-range TIPs. Since passage of SB 375 in 2008, the MPOs have been required to produce RTPs that, in combination with land use plans called Sustainable Communities Strategies (SCS) developed by the MPOs in coordination with localities, can achieve state-mandated targets for reducing per capita GHG emissions from cars and light-duty trucks. Under SB 375, MPOs must also align their RTPs with regional plans for allocating housing need for all income levels among localities within regions, as required under the state's Regional Housing Needs Assessment (RHNA) process.

SB 375 represents a groundbreaking effort to achieve more efficient development patterns through coordinated planning for transportation and land use at a regional scale. All the MPOs have developed RTP/SCSs deemed capable of achieving the initial state-mandated GHG reduction targets assigned under SB 375. The RTP/SCSs have been more ambitious than pre–SB 375 regional plans in encouraging more compact growth patterns, mode shifts toward sustainable transport, such as transit, biking, and walking, and reductions in VMT. Examining the most recently adopted RTP/SCSs, we

found that most MPOs had included performance objectives and measures aimed at improving accessibility (oriented to achieving efficient, multimodal travel patterns) than auto-mobility (oriented to reducing driver delay).

In addressing their GHG reduction targets, some MPOs have faced difficult challenges, such as for housing all the projected population growth for the region within their borders rather than allowing for spillover into surrounding areas, and for determining how and whether to forego desired roadway projects. These challenges have prompted some MPOs to devise evaluation methods and project ranking criteria to reward municipalities that adopt land use policies that support regional plan goals. For example, some MPOs subject transportation proposals to rigorous cost-benefit and social equity analysis and ranking.

Notwithstanding these achievements, SB 375 has come under scrutiny for failing, so far, to achieve its goals. In a report to the legislature in 2018, the CARB concluded that, "California is not on track to meet greenhouse gas reductions expected under SB 375," with a particularly worrisome trend being an observed rise in VMT and associated GHGs from cars and light trucks starting after 2013.

What accounts for the disappointing performance of RTP/SCSs in achieving desired outcomes? Various observers have long warned of structural flaws in SB 375 in terms of a mismatch of MPO responsibility with inadequate authority or resources to carry it out. To achieve plan goals, MPOs need state and local government support and cooperation, which so far have been inadequate.

The need for local cooperation has been evident from the start. SB 375 relies on MPOs to coordinate transportation and land use at a regional scale, and plan analyses consistently show the synergistic benefits of this approach for reducing VMT and GHGs. But to achieve their SB 375 targets, the MPOs have relied on land use policy changes not yet adopted by many localities and which veer away from current local general plans and zoning ordinances. The MPOs do not control land use policymaking, which is the prerogative of local governments.

How do MPO plans allocate funding?

Our analysis of the most-recent adopted RTP/SCSs indicates that most MPO plans allocate more funds toward roadways than transit, although most allocate more roadway funding toward maintenance, operations, and rehab (M&O) than new facilities. Central Valley and northern-state MPOs are more likely to direct funds to roadways than coastal MPOs. When considering capital spending for new facilities by the "big four" MPOs (in the SF Bay, LA, San Diego, and Sacramento areas), the Bay Area and San Diego area agencies spend more for new transit than new roadways, while the other two spend more for new roadways than transit. Compared to funding shares allocated under SB 1, the state's recent gas tax increase program, spending by the big four MPOs is allocated more toward transit than roadways, but also less toward M&O than new facilities.

The need for state action became more apparent when CARB renegotiated GHG reduction targets with the MPOs in 2018 in response to updated state GHG reduction goals, proposing stiffer targets for 2035 than those adopted originally under SB 375. The MPOs in the state's four largest regions countered that achieving the deeper reductions would be infeasible absent adoption by the state government of additional policies to support SB 375, including road and parking pricing, more funds dedicated to multimodal transport, and more direct support for local infill development. CARB

adopted more-stringent MPO targets, although not as stiff as its own analysis had deemed necessary to help achieve the state's overall GHG reduction target. To address the gap, CARB committed to conducting ongoing deliberations with MPOs on the new policy measures. In this fashion, **target renegotiation between CARB and the MPOs became a key venue for debate and deliberation on roles and responsibilities at different levels of government for ensuring the success of SB 375**.

These recent developments have brought the Achilles heel of SB 375—MPOs' institutional weakness for ensuring implementation—into sharper view. MPOs provide a crucial planning interface to align federal, state, and local projects and priorities, and their plans demonstrate how each region could help achieve the state's goals for sustainable transport if the projects and policies included in the plans are carried out. But MPOs cannot mandate local land use policy changes, and they have only limited discretion for initiating transportation projects, most of which are controlled by other levels of government, with the MPO role being to coordinate and prioritize project spending within regions. To achieve their now-tougher SB 375 targets, recent RTP/SCSs call for securing hundreds of billions of dollars of new revenue through state- and local-led pricing strategies, which the MPOs cannot directly and autonomously pursue. In its evaluation reports, CARB has critiqued some recent RTP/SCSs for relying on unsecured and uncertain revenue sources, but MPOs are banking on more ambitious but uncertain state and local action to be able to achieve their mandated goals.

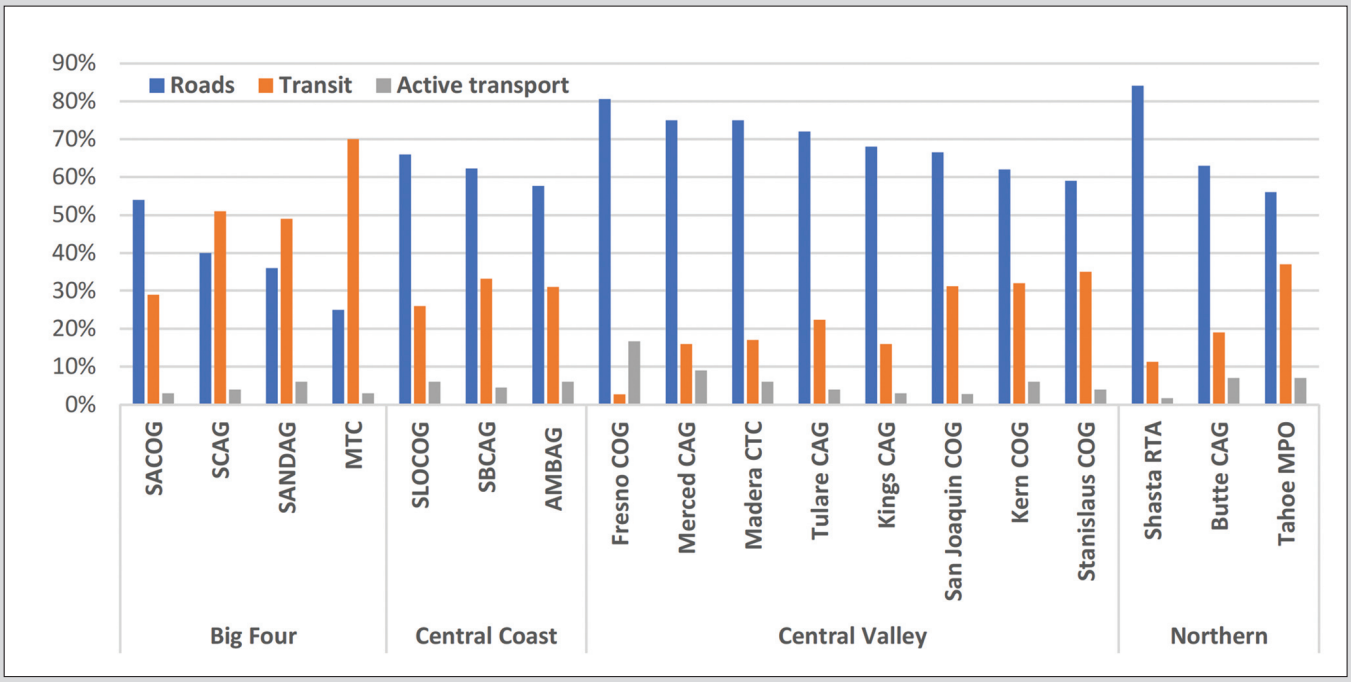

Figure 3. MPO planned expenditures by mode as reported in the most recent RTP/SCSs

Note: Values do not sum to 100% if an RTP includes spending for "other" purposes than shown.

The divergence between what-if scenarios and existing conditions is underscored when considering how RTP/SCSs relate to the state's long-range California Transportation Plan 2050 (CTP 2050). Unlike the RTP/SCSs, the CTP 2050 is not required to be "fiscally constrained" to "reasonably anticipated" revenue sources. The CTP 2050 aims to identify "policies and strategies required to close the gap between what the regional transportation plans (RTPs) aim to achieve

and how much more is required to meet 2050 goals" for the transportation sector. However, some unconstrained, aspirational funding strategies modeled for the CTP 2050, such as per-mile road user fees, are also included in RTP/SCSs, which then direct the new funds toward transit and other purposes. The inclusion of aspirational revenue sources in the RTP/SCSs raises questions about overlap between the regional plans and the CTP 2050. The lack of sharp delineation between constrained and unconstrained funding makes it difficult to determine exactly what more needs to be done beyond the RTP/SCSs to achieve state goals.

But more crucially, the RTP/SCSs and the CTP 2050 underscore the same message—that a more ambitious multilevel policy package is needed if California intends to achieve its climate goals. That package would include roadway pricing, increased financial and policy support for compact development, and greater investment in non-auto modes. Rather than criticize MPOs for devising ambitious plans that fail to deliver on the ground, it would be more useful to ask whether state and local policymakers are ready to pursue the visions described in CTP 2050 and the RTP/SCSs and adopt the supporting policies needed for them—and SB 375—to succeed.

Disputes over whether local-, regional-, or state-level inaction is more to blame for inadequate SB 375 implementation are misplaced because stronger efforts are required at all levels. The multilevel policy combination advanced in the CTP 2050, and mirrored in many RTP/SCSs, would be more effective if pursued in a concerted fashion, enabling Californians to see the synergistic benefits that could follow. For example, support for the pricing and land use changes being proposed might come more easily if voters understand that road pricing revenues would fund realistic alternatives to driving that in turn would make compact development more attractive.

SB 375 is at a critical turning point, with recent analysis and negotiations serving to raise concerns about the law's efficacy. However, these developments point not to the law's failure to accomplish its central mandate—for MPOs to develop and adopt long-range plans deemed capable of achieving state goals for sustainable transport—but rather they call attention to the law's built-in implementation deficit, which was apparent from the start but has not been adequately addressed. Like the CTP 2050, the MPO plans help show the way forward to achieving sustainable transport but also highlight the limitations of current assignments of responsibility and authority.

Part 2 of the white paper compares regional transportation plans and project funding—programming—using a detailed analysis of long-range RTPs and short-range TIPs for five MPOs in California. We developed and used a common coding scheme to categorize transportation projects in both the RTPs and TIPs and compared expenditures planned in the long-range RTP to the funds committed in the near-term TIP for automobile, transit, and active transportation infrastructure.

RTPs and TIPs serve related but distinct purposes in the transportation planning process. Both RTPs and TIPs must comply with federal regulations as well as state rules. In California, RTPs are also a regional strategy for transportation and land use that together meet regional goals and decrease transportation-related GHG emissions per SB 375. A TIP is a spending plan—it budgets funds to specific projects and is meant to implement the RTP. A TIP tracks in detail the transportation investments made with federal and state funding sources or that are "regionally significant," regardless of funding source. Thus, a TIP is expected to give a nearly comprehensive picture of the role of state and federal funds in attaining the goals of the RTP.

Our findings show (Figure 4) that among the five case study regions, **the state and federal—and in some cases, local—expenditures programmed in TIPs are generally less multimodal and more auto-centric than the investments outlined in MPOs' long-range transportation plans**. The three largest MPOs program a larger share of funds for auto infrastructure and a smaller share of funds for transit than the planned expenditures in their respective RTP/SCSs. Auto infrastructure (for example, new capacity, road rehabilitation, operations) receives the majority of

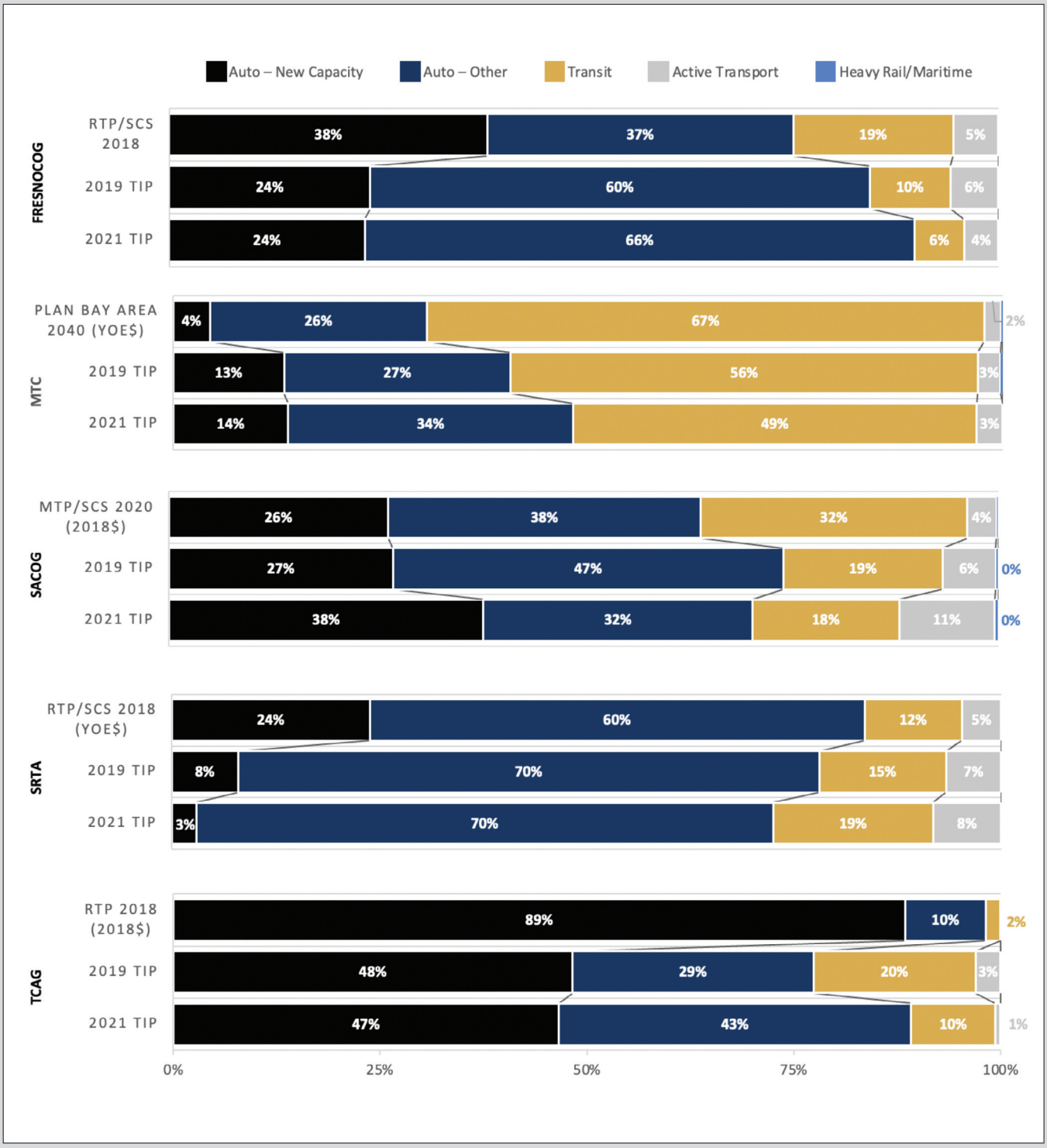

Figure 4. Regional plan investments vs. programmed investments

planned and programmed funds in all regions, except the San Francisco Bay Area. New auto capacity (for example, new or wider roads, new auxiliary or toll lanes, new or wider interchanges and ramps) makes up a significant share of planned and programmed funding in all regions, particularly in the Central Valley and suburban areas of the Bay Area. Indeed, new auto capacity receives the plurality of programmed funds in two of the five case regions (SACOG and TCAG).

These results indicate that despite ambitious multimodal investment plans in some RTP/SCSs, the TIPs tend to frontload auto infrastructure and backload transit with their state and federal funding. This leaves local governments with the responsibility for using their local funds to develop the projects that will realize much of the GHG reduction envisioned in the RTP/SCSs. But local governments have their own priorities that might or might not align with the state and regional GHG reduction goals. This pattern of investment, particularly the near-term prioritization of VMT-inducing roadway expansion, contravenes California's GHG reduction goals and hinders the decreased auto dependence that RTP/SCSs aim to achieve. **To implement the GHG reductions envisioned and budgeted in California's regional plans, policy is needed that will redirect California's core transportation funding programs, such as the STIP and SHOPP, and the local project development and prioritization processes away from auto-capacity projects and toward investments that reduce auto dependence, such as transit and active transportation**.

WP 4: Examination of Key Transportation Funding Programs in California and Their Context

This paper examines 11 key transportation funding programs, 5 of which are specified in AB 285. We evaluated the funding programs' alignment with contemporary state goals for transportation as expressed in state law and the CTP 2050. We consider the historical context in which the 11 programs were developed and the contemporary context in which these 11 programs are placed, alongside many others in California's complicated funding system. Our central question is: How well do California's transportation funding programs support the state's goals and climate agenda?

Much of California's current transportation funding system was developed in response to major shifts in federal funding in the mid-20th century, which catalyzed a need for states and localities to develop state and local programs to become eligible for federal fund matches." Much of the complexity in California's current transportation system is rooted in the many political compromises that were necessary to develop highway funding programs in the 1940s and transit programs in the 1960s and '70s. Even when there was agreement over the general need for such funding, legislators had to brook disagreements over how to pay for it and to bridge tensions over the disparate needs of different parts of the state. Later, concerns over "fiscal discipline" received much attention, and as a result, many transportation programs, especially transit-supportive ones, have complex conditions and eligibility criteria so strict that numerous exemptions were subsequently adopted to avoid transit shutdowns.

In the 1980s, in response to Proposition 13, localities, especially counties, started putting local option sales tax (LOST) measures on local ballots. Their popularity, pervasiveness, and sheer size means that LOSTs have outsize effects on transportation outcomes in the state. Popular with voters for their sunsetting clauses and specificity of projects, **LOSTs have become the largest source of transportation funding in California** (21.7% of the transportation funding considered for this report).

Research into patterns of transportation funding indicates that new and additional funding sources do not displace or replace existing already-programmed funds. LOSTs, therefore, add funding capacity, enabling localities to build projects that they otherwise would not. However, **the significant amount of funding from LOSTs has shifted the locus of influence away from MPOs, which are responsible for implementing the state's vision for land use and transportation through Sustainable Communities Strategies, to counties that have no such obligations**.

The five AB 285 programs we looked at were the Affordable Housing and Sustainable Communities Program, the Low-Carbon Transit Operations Program, the Transformative Climate Communities Program, the Sustainable Transportation Planning Grant Program, and the Transit and Intercity Rail Capital Program. These programs primarily support transportation-related projects to meet state climate goals, with a key focus of achieving GHG emission reduction. Projects funded by these programs include sustainable transportation infrastructure, intermodal transit facility expansion, and shared mobility programs. All AB 285–identified programs were established recently and provide funding allocations for projects within or serving disadvantaged communities, low-income communities, and low-income households, as established by SB 535 and AB 1550.

The other six programs we reviewed were the State Highway Operations & Protection Program (SHOPP), Local Transportation Funds (LTF), Solutions for Congested Corridors (SCPP), the Interregional Transportation Improvement Program (ITIP), the Local Partnership Program (LPP), and the Active Transportation Program (ATP). Most have prescribed types of activities and projects. SHOPP and LTF are the biggest of the state transportation programs, with SHOPP accounting for almost 60 percent of the funding, and LTF for an additional 25–30 percent (the percentage varying somewhat by year).

Programs and funding sources with estimated percentages by expenditure category

Program Name	Appropriated*	Transit	Local Return & Discretionary	Highway	Streets & Roads	Other
Local Option Sales Tax	$6,643,000	42.0%	14.5%	23.4%	14.1%	6.0%
State Highway Operation and Protection Program	$4,540,000			100.0%		
State Highway Maintenance and Rehabilitation	$1,900,000			50.0%	50.0%	
Local Transportation Fund	$1,899,311	82.9%	0.0%		7.3%	9.9%
Transit Fares	$1,798,045	100.0%				
Local General Funds	$1,755,043				100.0%	
Local Streets and Roads Program	$1,500,000				100.0%	
Toll Fees for Highways and Bridges	$1,375,875	0.3%	24.2%	75.5%	0.0%	0.0%
Federal Transit Administration Formula Grants for Urbanized Areas	$1,099,908	100.0%				
Federal Transit Administration Capital Investment Grants Program and State of Good Repair Program	$936,647	100.0%				
Transit – General Funds and Property Taxes	$901,883	100.0%				
State Transit Assistance	$802,999	100.0%				
State Transportation Improvement Program [xiii][C]	$710,000	23.9%		76.1%		
Surface Transportation Block Grant Program	$522,110			34.0%	33.0%	33.0%
Transit – Other Directly Generated	$509,655	100.0%				
Transportation Infrastructure Finance and Innovation Act	$508,449	1.7%		98.3%		
Developer Impact Fees	$402,921				100.0%	
Congestion Mitigation and Air Quality Improvement Program	$391,700	30.0%		50.0%		20.0%
Affordable Housing and Sustainable Communities	$324,000	0.5%				99.5%
Trade Corridor Enhancement Program	$300,000			87.3%	0.8%	12.0%
Highway Safety Improvement Program	$277,600			100.0%		
Highway Bridge Program	$270,626			100.0%		
Solutions for Congested Corridors Program	$250,000	55.5%		44.5%		
Low Carbon Transit Operations Program	$225,400	100.0%				
Local Partnership Program – Competitive	$200,000	13.5%	0.0%	51.5%	25.6%	9.4%
Federal Transit Administration – Other	$141,630	100.0%				
Active Transportation Program	$122,971					100.0%
Intelligent Transportation Systems Program	$53,965			50.0%	50.0%	
State Rail Assistance Program	$51,600	100.0%				
Transformative Climate Communities [vii][C, A]	$41,700				100.0%	
Sustainable Transportation Planning Grants	$34,000					100.0%
Federal Transit Administration Formula Grants for Rural Areas	$28,568	100.0%				
Transit and Intercity Rail Capital Program	$27,900	100.0%				
Clean Mobility Options	$21,150	15.0%				85.0%
Sustainable Transportation Equity Project	$19,500					100.0%

*Amount appropriated for reported fiscal year in million

Source: Data from various sources for FYs 2018–19 to 2020–21 (est.) depending on fund. Refer to white paper for details.

Our review of the selected state transportation funding programs and their appropriations suggests that the **influence of the five AB 285 programs on state policy outcomes is limited by their small share of the state's transportation funding**: the five AB 285 programs account for only 2.13 percent of the state's annual transportation funding reviewed for this research. The six additional programs we reviewed, which are older on average, have fewer and more focused goals, primarily aiming to improve mobility across California. Many lack a statutory funding commitment to environmental protection or disadvantaged communities and instead, only consider the impact of projects within the project evaluation processes.

To assess funding alignment with articulated state goals, we first identified the goals articulated in the 2024 Caltrans Strategic Plan, CTP 2050, and numerous state bills. We identified 33 goals. Because many of these goals were overlapping, although expressed in varied language, we placed the 33 goals into seven broad categories: environmental protection/emissions reduction; improved transportation equity and access; increased safety and resilience; prioritized maintenance of transportation assets ("fix it first"); promotion of non-auto modes; reduced VMT; and support for vibrant communities and economy. We then determined the amounts appropriated for each funding program and reviewed each fund's eligibility requirements and restrictions as well as its references to relevant legislation—keywords or phrases that aligned with each state goal category. Finally, we counted the number of state goal categories with which each program aligned. This process allowed us to evaluate the extent to which the transportation funding considered here is directed toward state goal attainment. The analysis found that **the programs with the largest funding address few of the state goals in their statutory description, criteria, or wording, whereas several of the programs that address the most state goals are among the least-funded programs** (of those we studied).

In essence, the state's older programs have greater funding, fewer goals, and fewer goals aligned with contemporary state objectives. In contrast, the state's newer programs have comparatively less funding, more goals attached, and more goals aligned with the state's targets for reducing GHG emissions, reducing VMT, increasing non-auto mode share, and improving transportation equity and access. This suggests that the state's transportation spending is not well aligned with many of its goals.

Why this misalignment in goals and spending occurs is unclear, but a possible reason is that increased funding for transportation has been hard-fought. Road building in the 1950s and '60s created a massive network of streets and highways, and their increasing need for maintenance and rehabilitation, coupled with general inflation and increases in construction costs, meant that programs like SHOPP and local streets and roads required more resources for "fix-it-first." In addition, the state's contemporary commitments to values such as environmental sustainability and social justice have attached more goals to the more recently enacted programs without necessarily providing more funding or by providing only modest amounts.

The funding analysis suggests that it might be time for a comprehensive reevaluation of program funding levels and eligibility criteria. While federal law and state constitutional provisions create limitations on how some transportation funds can be spent, based on our review, there appears to be room for administrative reforms that would increase and accelerate state goal attainment.

WP 5: Flexibility in California Transportation Funding Programs and Implications for More Climate-Aligned Spending

Funding is in short supply for many of the transportation measures that Caltrans, California, and MPOs have included in their plans and programs for a climate-friendly future. Transit, bike, and pedestrian facilities and services and new mobility options for passengers and goods movement are included as key measures in the CTP 2050 and in MPOs' Sustainable Communities Strategies. However, the accounts that pay for these types of projects are oversubscribed. Currently, most transportation spending in California goes to highway construction and maintenance, and some of this funding is being used for projects that are likely to increase VMT and emissions. Sound asset management practices require investments in maintenance and rehabilitation, and longstanding goals of safety and economic prosperity clearly remain important. Whether there is flexibility to reallocate or otherwise manage transportation funds to increase expenditures on projects that will better comport with state climate goals—and also goals for clean air, environmental protection, and equity—is a question that is increasingly being asked.

In white paper 5, a combination of legal research and a small sample of interviews with key informants was used to address the following questions.

- How much flexibility exists under various transportation programs for transportation agencies to choose the type of project that best addresses their goals? What options are available for directing funding toward active transportation and transit projects?
- If flexibility exists, what methods can be used to reallocate funding, modify prior commitments, or change project priorities? Where is there flexibility in spending transportation project funds on GHG-reducing projects rather than auto-oriented projects?
- What are the implications under the California Environmental Quality Act (CEQA) of policy or analytical developments that arise after the original CEQA review? If decision-makers do modify transportation plans or projects in response to new policies or new information, would those modifications trigger or reopen a CEQA analysis?

Six key findings emerged from the research.

1. There is little consistency in how much flexibility is available under various transportation funding sources, and efforts to direct expenditures toward state goal attainment would need to address the specifics of each funding source.

Transportation projects are funded with federal, state, and local dollars, and the rules for expenditures depend on the specific funding source and program.

Some federal programs are fairly flexible. For example, Congestion Management and Air Quality funds can be spent on bike and pedestrian projects, transit services, or highway operations improvements, but not on routine maintenance or traffic lanes for single-occupancy vehicles. Other funding programs are more narrowly focused on a particular mode (for example, highways or transit) or problem, such as highway safety. In addition, some funds are allocated to designated recipients by formulas established in law, while other funding programs are discretionary and competitive, and eligible applicants must apply for them.

In California, expenditures from the Highway Trust Fund are governed by Article XIX of the California Constitution and Streets & Highways Code section 2101. These laws specify that allowable uses of gas tax funds are for public streets and highways, public mass transit guideways, and their related public facilities. From the perspective of advocates for a more balanced transportation system, a major limitation has been that gas taxes cannot be spent on acquisition of buses or other mass transit vehicles, on passenger facilities, such as bus benches, shelters, and bus stop signs, or on operating and maintenance costs of mass transit. However, SB 1 (Beall, 2017) increased the California gas tax and also added programs that support a diverse set of projects, including funding for transit, active transportation, and multimodal projects in congested corridors.

2. Strategies for reallocating funding include project substitutions, programming priority changes, and project modifications. However, such strategies require time and could trigger additional reviews. Furthermore, officials can seek greater flexibility in spending in some cases and greater strictures on expenditures in other cases.

Programming processes generally contain the flexibility for officials to delete some projects and substitute others as long as the projects are consistent with the applicable state or regional plan. However, in areas that are nonattainment for National Ambient Air Quality Standards, this could trigger a conformity review. Officials also can choose to reprioritize projects, expediting those with desired impacts and postponing those whose impacts raise concerns. Finally, under many programs, officials can modify proposed projects to mitigate potentially adverse effects, such as increased VMT and emissions, although this could trigger additional environmental reviews.

Project substitutions and changes in project designs, mitigation measures, timing, and so on could run the risk of losing funds due to funding eligibility issues or deadlines for project completion. This often reduces willingness to modify plans or programs. Also, while officials sometimes want added flexibility in funding use, others would prefer to constrain flexibility, developing policies under which projects that advance specified goals receive priority for funding. California's Climate Action Plan for Transportation Infrastructure (CAPTI) is in this vein.

3. With some exceptions, state law affords transportation agencies the authority to craft fairly flexible transportation spending measures, in particular through categorical or priority-based (rather than project-specific) approaches and built-in processes for agency adaptation to new circumstances.

A substantial share of California's transportation funding comes from local sources, and in particular from local option sales taxes (LOST) approved by voters. Under the constitutional and legal provisions derived from Propositions 13, 62, and 218, local governments are fairly circumscribed in how they can authorize new revenue-raising measures that could fund transportation investment; "special" taxes to fund specific priorities require the approval of two-thirds of the voters. However, state law generally allows local governments to build flexibility into the plans that voters approve. Specifically, transportation LOSTS can describe the project priorities or project types to be funded rather than the specific projects to be funded, allowing transportation leaders to craft spending plans according to local preferences. They can include detailed processes, such as supermajority board votes, for agency modification of spending plans under specified circumstances.

4. In some cases, state agencies can improve the flexibility to direct funds toward projects aligned with state priorities by modifying interpretations of a statute rather than by initiating changes to the statute itself.

State agencies often can prioritize desired types of transportation projects through the interpretation of statutory criteria and modifications of administrative guidance. For example, bike and pedestrian improvements could be treated as required elements of street rehabilitation projects, unless proven infeasible, rather than encouraged where feasible.

Changing agencies' implementation guidance (where permitted by statute and grounded in state laws or executive orders) often can be done faster and put into effect more easily than changes to the law itself.

However, changing statutory language might be appropriate in certain cases. For example, if a particular fund's uses are limited by explicit provisions of the law, but a wider set of uses would be salutary, a legislative change would be necessary. Legislative intervention might also be needed when there is disagreement between agencies about legislative intent or when the agencies' policies are in conflict, if an interagency agreement cannot be reached.

5. Political barriers to changes in local projects and sales tax measures can be more challenging than legal barriers.

A substantial amount of political inertia characterizes transportation planning and funding processes, making it difficult to chart a new course for a project after it is set in motion. Even where flexibility could exist from a legal perspective, entities can encounter multiple impediments to more proactive funding redistribution at the local and regional levels, particularly where the public has approved a program via a tax measure. Transportation planning is a multiyear process. By the time a project is considered for funding, it has gained substantial political support, including from powerful political constituencies.

Projects included in RTPs 20 years ago, or even 10 years ago, might now be out of sync with the latest technologies, demographic needs, and environmental realities. Still, there could be tension between state VMT and GHG reduction goals and community investment preferences, and it might be politically infeasible to overturn these priorities at the local level. Officials responsible for decision-making under an RTP might face competing priorities. Indeed, most MPO board members are local officials with obligations to represent their constituents at the same time that they are being asked to address broader regional concerns.

In many cases, it is easier to reprioritize a controversial or problematic project, that is, delay its implementation rather than delete it altogether or redesign it.

6. CEQA does not typically require agencies to undertake new review based on post-certification analysis or policy changes. However, transportation agencies seeking to revise projects for funding in a manner that goes beyond the terms of their original spending program or plan typically need to undergo supplemental or subsequent CEQA review.

As a key mechanism for incorporating environmental considerations into transportation projects, CEQA comes up when strategies for improving transportation projects' performance are under consideration. At the same time, agencies often resist opening up CEQA reviews because of their costs in time and dollars.

Transportation projects that have been in the pipeline for many years might not have undergone the same level of analysis for issues, such as induced travel, GHG emissions, or environmental justice, that newer projects undergo. However, under CEQA, subsequent environmental analysis or issuance of guidance, or amendments to CEQA itself, generally do not require an agency to take additional action, even if they would have affected the environmental review had they been in place at the time it was being done. After a project has obtained certification of its environmental review, the lead agency typically is not required to conduct further environmental review unless the agency makes a subsequent discretionary decision to modify the project.

However, if a lead agency elects to undertake a discretionary action and update the environmental review, it will likely be required to prepare a subsequent or supplemental environmental impact report on the new impacts and project modifications, including full public review and comment processes. As a result, time- or funding-constrained agencies will likely be hesitant to reprioritize projects in this manner.

6. Putting It All Together: Key Findings

Here we present findings that cut across all the white papers. Overall, we find that California is not on track to meet its GHG reduction targets and is likely to fall short of attainment of other important goals – a finding that underscores those of CARB and Caltrans. Without additional action, the CTP 2050 shows that VMT could increase by 13 to 35 percent, and delay could also increase.

The reasons for the likely gap between goals and attainment are several. They include a long history of highway investment and far smaller commitments to transit and other alternatives, leading to auto dependence and difficulty in changing directions despite public policy mandates for multimodal, environmentally friendly transportation. In addition, the institutional structure that California has established gives considerable responsibility to local government and limits the ability of regional or state agencies to effectuate a change in direction. **Unless there is faster action on ZEVs, massive new infusions of funding for transportation, and land use investments that reduce GHG emissions and improve equity, or a reprioritization of funding commitments, the state will not meet its climate goals, equity will suffer, and the state might also fall short on other, more traditional goals, such as providing reliable, efficient movement of people and goods**.

Finding 1: We arrived at the transportation system we have today by focusing on highway construction for the 20th better part of the 20th century.

During the 19th century, canals and railroads spurred westward expansions, and urban rail and trolley s lines shaped many cities. But automobiles and trucks, with their ability to go anywhere where there were roads, quickly captured the public imagination in the first two decades of the 20th century. As mass production made automobiles affordable to many, roadway improvements began to be a priority. With federal aid starting in 1916, the states improved roads throughout the first half of the 20th century and developed engineering organizations, system plans, and design standards to assure their quality. Gas taxes and other user fees were instituted to help fund the building boom, although general revenues continued to be used as well in many states, and local streets and roads were often built and funded through property taxes and developer exactions.

During the 1950s and ’60s, the federal government and the states funded and built an extensive network of highways designed for fast, safe mobility, including the Interstate Highway System. Gas taxes, motor vehicle fees, general funds, sales and property taxes, and developer exactions and impact fees provided the revenues for transportation projects. Highway trust funds were instituted to protect revenues generated by motor vehicle users from being diverted to non-highway purposes, and they provided a steady flow of funding for new facilities. California was an enthusiastic participant in the highway building boom, and in 1959, adopted a 12,241-mile freeway plan, nearly one-third the length of the entire Interstate system, and proposed a urban grid of superhighways spaced about 4 miles apart.

While motor vehicles proliferated and car driving became the norm for most trips urban freeway construction projects were not universally popular. In the 1960s, a number of cities experienced anti-freeway protests and calls for a better

balanced transportation system. The private enterprises that had built and operated transit systems had struggled financially for decades, but during the post war years, many faced collapse. Public takeovers, consolidations, and new investments ensued. Pressed by urban interests, the federal government stepped in with funding for public transit agencies, although support was at a fraction of the funding levels provided for roads.

During the same period, civil rights laws and environmental concerns began to gain traction, and expectations for community involvement in transportation decisions grew. These political and cultural changes resulted in institutional reforms, including the institution of metropolitan-wide transportation planning overseen by local elected officials and requirements for public participation. Many highway departments became transportation agencies and their responsibilities broadened to encompass multiple modes and multiple objectives: transit and rail systems as well as highways, social and environmental considerations as well as engineering and economic values.

By the 1980s, many transportation facilities built in earlier decades were showing their age. Maintenance and repair activities took on an increasingly prominent role in many state DOTs. Anti-tax movements and the sense that highway building was reaching its limits made federal and state officials slow to raise gas taxes, and when gas taxes were raised, they did not always keep up with inflation. One result was a decline in the condition of the street and highway system and directives to turn attention to maintenance and rehabilitation instead of construction.

Meanwhile, the highways built over the previous decades had helped reshape metropolitan United States, and suburban development dependent on high levels of motor vehicle ownership became the dominant land use pattern. Local control over land use operated as a conservative force, for the most part protecting single-family, owner-occupied housing and limiting densities. Exclusionary zoning resulted in higher housing prices and reinforced racial and economic segregation. Suburban housing was followed by suburbanization of jobs as well, as shopping centers and office parks located along the interstates and beltways where cheaper land was available and a workforce and customer base was nearby. The resulting sprawl development pattern was difficult and costly to serve by transit and often entailed travel distances too far to walk or bike. Traffic congestion followed, and suburban officials responded with road widenings in some areas, transit investments in others.

While it was recognized that efforts to moderate auto dependence and travel were dependent not just on transportation options but also on available land uses, local controls and public suspicions of urbanization were a barrier to the infill, higher densities, mixed uses, and compact growth that planners advocated. Still, studies illustrating the social, economic, and environmental costs of sprawl and auto dependence led to periodic efforts to change planning approaches. Pedestrian pockets, transit-oriented development, inclusive housing programs, traffic-calmed street designs, and jobs-housing balance strategies are just a few of the initiatives that have been tested from the 1970s onward.

Finding 2: The goals for transportation have expanded significantly over time, but their implementation has been uneven.

Over the years, goals for transportation have expanded from building networks of facilities that support economic development to include asset maintenance and management, safety and security, multimodal mobility and access, social equity, environmental protection and enhancement, climate protection, and quality of life. This has greatly increased the obligations of transportation agencies. However, institutional resistance to change and a lack of alignment of goals and funding have slowed implementation.

The need for investment in maintenance and rehabilitation was recognized from the start of the highway program but, in most cases, it was not until facilities had significantly deteriorated that action was taken. Air pollution from motor

vehicles was recognized as a public health hazard in the 1950s, and federal and state laws have set health standards for pollution levels for over 50 years, but much of California still has not attained those standards. Civil rights laws offered hope of equality, but disparate impacts have continued to this day. The threat of climate change is one where delay would likely have catastrophic consequences. California has recognized this, provided leadership, and taken action, but efforts to date are falling short of needed accomplishments. Finding ways to move from policy enunciation to policy implementation is now imperative.

A factor slowing implementation is that priorities are not fully articulated and, at times, goals seem to be in conflict—for example, directives to facilitate freight movements but also to reduce pollution exposures in the communities near ports and highways. The addition of policy directives without clear priorities can lead to decisions that overlook tradeoffs between competing modes and miss other options, as in the freight example, by switching shipments to rail and electrifying port equipment and trucks and using advanced logistics to lower traffic levels. Finding ways to harmonize goals and setting priorities for their implementation is an important but currently missing piece.

Finding 3: The gap between the climate-friendly state vision for transportation and the investments at the state and regional levels that continue to emphasize automobility might prevent the state from meeting its climate goals and other goals as well.

To respond to the climate change threat and to other state goals, California's state transportation plans call for a widely deployed, well-maintained transportation system that reduces climate impacts (as measured by reductions in GHG and per capita VMT), strengthens equity and public health, and increases safety while supporting economic competitiveness and preserving past investments. But there is a gap between the vision for transportation articulated in these documents and the reality that the transportation investments being made do not sufficiently achieve climate and equity goals. This gap has persisted despite the establishment of new state programs that explicitly elevate climate and equity goals in scoring criteria and project outcomes.

The CTP 2050 assumes aggressive implementation of ZEVs and connected automated vehicles, road pricing, telecommuting, transit expansion, and infill development meeting affordable housing goals—an ambitious program for change. The plan assumes technology changes and funding increases that could be hard to achieve. Even with these assumptions, however, scenario analyses done to support the development of the plan show that, with state and regional plans implemented as currently proposed, the state climate goals will be hard to attain, especially if population growth remains high.

A reason for the gap between the vision and its likely accomplishments is that funds devoted to new directions are limited. A review of legislative and regulatory mandates against articulated contemporary goals shows that many major funding programs only partially address goals, such as combatting climate change or avoiding and remedying equity problems. The state's Active Transportation Program and its transit program, important sources of funding for actions that would support climate goals, are oversubscribed. The Transformative Climate Communities, Affordable Housing and Sustainable Communities, Low Carbon Transit Operations, Transit and Intercity Rail Capacity Programs, and the Sustainable Transportation Planning Grant, five state programs with a high degree of alignment with climate and equity goals, account for only 2 percent of statewide transportation spending. Without an aggressive effort to change the funding available, strategies for mode shift seem hard to achieve.

In addition, regional and local transportation plans and funding programs appear to be frontloading highway capacity projects, many of which will increase VMT and emissions. Given the long timeline of transportation projects from planning to implementation, many transportation projects in the pipeline do not fully address goals that have only

recently come to be emphasized, such as climate protection and equity environmental concerns. The state plan assumes that regional and local plans will proceed as stated, even though they include projects that the state believes will make climate goals harder to attain. The political impetus to keep past promises and emphasize project delivery can make it difficult to reconsider projects and delete, delay, or modify them, but such projects, unmodified, could impede attainment of the broader social and environmental goals that the state is pursuing today.

Local control over land use and the key role of county sales taxes for transportation with voter-endorsed programs and projects, reduce state or MPO authority to implement the plans that they are responsible for creating. The multiplicity of policies, channels of communication, and layers of review further cloud decision-making.

The state, through CAPTI, and some of the MPOs are taking steps to incentivize projects that meet state goals and create best practice examples. Monitoring the performance of these policies and guidelines will be important in determining their efficacy and sufficiency.

Finding 4: The institutional structure for designing and delivering transportation is highly decentralized, with responsibilities dispersed across many organizations at different levels of government. In California, the institutional structure is more decentralized than most. One result is a highly complex process for transportation decision-making.

Over the years, many transportation organizations and their staff have been slow to fully respond to changes in technology, policy, and community values, clinging to preferences for building projects over managing systems, and treating community and environmental mandates as constraints or secondary issues rather than as causes for new approaches. One result has been for legislators to limit state DOTs' authorities, mandating shared decision-making with regional and local agencies and, in some cases, assigning oversight to other organizations, as is the case for transportation-air quality programs.

To a greater extent than in other states, the assignments of responsibility for planning and delivering transportation projects in California are dispersed among many actors (CalSTA, CTC, Caltrans HQ, Caltrans districts, MPOs, RTPAs, county transportation commissions, counties, cities, transit agencies, and other special districts and authorities). The State DOT, Caltrans, prepares a state transportation plan and programs interregional projects, but notes that it fills the gaps between the regional plans and does not mandate policy changes or specific actions at the regional level.

Caltrans reports to CalSTA, a cabinet-level transportation agency, but also responds to the California Transportation Commission, which develops funding estimates and approves programming. The CTC has responsibility for preparing funding estimates and program guidelines, but the Legislature has limited the CTC's authority to modify Regional Transportation Improvement Programs. As part of a recent gas tax increase devised by the Legislature and approved by voters, the state has established a separate audit function. Together with Caltrans' highly decentralized organization, where many decisions are devolved to the district office, it can be very difficult to steer investments in a different direction and even more difficult to change transportation agencies' culture—their views of what needs to be done. Indeed, it can be difficult to identify who is responsible for the transportation program or its various aspects.

California's decentralized structure provides many opportunities for public engagement and context-specific responses in a state that is diverse socially and geographically. It provides checks and balances against overreach and protections against misuse of funds. However, it also creates a lack of clarity on ultimate responsibility for achieving statewide goals and leads to multiple communication channels and "noise," which can impede the implementation of new policies and practices.

Shared funding and approvals by federal, state, regional, and local actors are typically needed to bring projects through to fruition. Accomplishing this requires a high degree of collaboration and collective action among stakeholders at different levels of government. Collaboration and collective action are also needed for the attainment of state and regional transportation policy goals, but the policy directives and incentives for state agency-led or regional agency-led action are only partly in place.

Finding 5: While the CTP 2050 sets an aspirational vision for transportation in California, its impact on investment decisions is modest because its assumptions are unconstrained and its scope is limited.

The CTP 2050 sets an aspirational vision for transportation in California, offers direction to Caltrans, and offers inspiration and encouragement to other transportation agencies in the state. However, the plan does not have a major impact on investment decisions, for three reasons.

First, because the plan is unconstrained financially and its goals are broad, it does not specify how projects will be prioritized, nor does it explicitly discuss tradeoffs. At the present time, when the financial element is in draft form and the implementation element is not yet released, the plan does not offer clear direction as to how to invest the funds that actually are available. The Climate Action Plan for Transportation Investments (CAPTI) partially addresses this concern with respect to discretionary state investments and climate considerations, but it does not resolve the issues for other state plans and goals.

Second, because the plan spans 30 years and anticipates transformational changes during that time, it necessarily contains substantial uncertainty. However, because the plan assumes that ZEVs, connected automated vehicles, increases in auto operating costs, and telecommuting can solve many transportation system's safety, emissions, climate impact, and congestion problems, it leaves most of the responsibility for solving these problems to other agencies (especially CARB), the private sector (trucking companies, railroads, shippers, businesses), and consumer choices (households, businesses).

Third, the plan states that its intent is to fill gaps after the regional plans (produced by MPOs) are implemented and not to mandate changes to those plans, thus relying on the state's many RTPs to establish much of the direction for the next 30 years. State policy is to assume that the county and regional projects will proceed as planned and programmed. Thus, much of the responsibility for goal attainment depends on what the regional plans can accomplish. However, while MPO plans are supposed to be fiscally constrained, they too make numerous assumptions about technology, expanded transit services and bike and pedestrian infrastructure, road pricing, mobility innovations, and smart growth policies, which will be difficult to achieve absent additional funds, grants of authority, and collaboration with state agencies. In addition, as the plan itself notes, continued capacity increases being programmed at the local and regional levels are likely to increase VMT and emissions and spread out development, and it does not appear that these increases have been fully mitigated with countervailing investments elsewhere in the system.

By not specifically tackling the thorny issue of what can be done with existing funding, the plan leaves itself open to criticism that it doesn't offer meaningful direction. As a result, other agencies reported to us that they do not see the CTP as direction for their plans and decisions.

Other state plans receive mixed reviews as to efficacy. State plans that explicitly set forth priorities for investment and other actions (even further study), such as CAPTI and the State Rail Plan, are widely seen as plans of action that point the state in the right direction. However, an issue raised by a number of those we interviewed was that the sheer number and total page length of the state's plans were a barrier to understanding them or participating substantively in their development.

Finding 6: California MPOs have more responsibility than comparable MPOs in other states but that added responsibility has not been matched with sufficient new resources or authority, and their plans remain aspirational.

MPOs are federally mandated regional transportation agencies and are responsible for planning and programming transportation investments. The establishment of MPOs traces back to the 1962 Federal Aid Highway Act, which called for "a continuing, comprehensive transportation planning process carried on cooperatively by States and local communities." This 3-C process was strengthened over the next three decades by successive federal legislation and regulations assigning MPOs responsibility for planning and programming for their jurisdictions and for analyzing transportation control measures for air quality improvement and, in the 1990s, by strengthening MPO programming authority and providing them funds for congestion relief and air quality management projects. Today, MPOs establish the vision for their region in periodically updated long-range (20+ year) RTPs and coordinate the multiple projects funded by federal, state, and

California has established 18 MPOs, and the state assigns more responsibility to its MPOs than most other US states. Through SB 45, adopted in 1997, California MPOs were made responsible for programming state transportation funds allocated to the urban regions (75 percent of all these funds statewide). Additionally, since 2008, MPOs must ensure that their long-range transportation plans achieve state-mandated targets for reducing GHG emissions, under SB 375.

But California has given MPOs neither the resources nor the authority to match their widened responsibilities. They are expected to incorporate County Transportation Authority programs over which the MPOs have little say. MPOs and have been assigned responsibility for implementing Sustainable Communities Strategies, but they lack the authority to require localities to implement them. While MPOs do have some funds that can be used to incentivize local action, MPOs directly control only a small portion of the total funding represented in RTPs.

The MPOs' plans reflect a vision for a transportation system that, coupled with land use changes, could meet climate and other state and regional goals. However, as is the case with state transportation plans, MPO plans make assumptions about large-scale policy and behavioral developments that depend on federal, state, private sector, and individual action, such as the rate of telecommuting, the implementation of road pricing, and the speed of uptake of electric vehicles. MPOs also face roadblocks in implementing their plans because a substantial portion of their funds are already committed to projects that have been planned for many years, to maintenance of existing facilities, and to voter-approved transportation spending measures. In addition, local governments' willingness to conform to regional plans' land use proposals has been spotty.

While the MPOs can use incentives as a way to achieve their goals and can require proposed transportation projects and project packages to meet rigorous cost-benefit and social equity analysis and ranking, most of them have concluded that stiffer GHG reduction targets for future years (for example, 2035) would be infeasible absent state policies for road and parking pricing, more funds dedicated to multimodal transport, and more "direct support" for local infill development.

Finding 7: At the regional level, most MPOs continue to devote the bulk of their total spending toward auto investments, including capacity expansion and road operations and maintenance. The ability to redirect programs toward new goals is limited by the need to "fix it first" and respect commitments to projects in the pipeline, and the small amount of funding available for new directions.

Expenditures programmed in Transportation Improvement Program (TIP) plans are less multimodal than expenditures planned in RTP/SCSs. A review of a sample of programming documents shows that most MPO plans allocate more funds

toward roadways, especially maintenance, rehabilitation, and operations than toward transit or active transportation. This is due to the pressures (from federal directives as well as state policies) to return the extensive highway system to a state of good repair. It also reflects a desire to keep moving forward with projects that were committed to in previous years.

The breakdown of transportation spending varies considerably across MPOs. For example, Central Valley and northern MPOs are more likely to direct funds to roadways than coastal MPOs, and the "big four" MPOs allocate higher funding shares to transit than other MPOs, on average. However, the sampled MPOs' transportation improvement programs showed that significant funding is still going to highway capacity expansion, and these projects are being frontloaded in the MPOs' spending programs.

Finding 8: Local option, voter-approved sales taxes and have become a major source of funding for transportation in California, reducing the ability of state and regional agencies to steer investments and outcomes.

The shift to local funding of transportation projects has meant that state and regional agencies have less say about which projects and programs are funded. The shift has been dramatic. The Interstate Highway program was funded with the federal government picking up 90 percent of the tab, and for many decades, federal funds covered 50–80 percent of the costs of most other federally assisted transportation projects. However, high levels of inflation during the 1970s eroded the buying power of cents-per-gallon fuel taxes. At the same time, concerns about energy supply and price led to motor vehicle fuel efficiency standards, and revenues per mile driven began to decline. With highway building winding down and anti-tax sentiments on the rise, interest in paying for increasingly costly transportation facilities was on the wane. Many states raised their gas taxes, including California, but not by enough to make up for higher costs. Deferred maintenance became a problem.

In California, in response to Proposition 13 tax cuts and shrinking state funding for transportation, localities, especially counties, started putting local option sales tax measures (LOSTs) on the ballot. With LOSTs, voters can choose to tax themselves for specific programs and projects at a specified rate for a specified period. Local option sales taxes agreed to by voters and implemented at the county level (and later, in some regions) became a major funding source for California transportation projects.

Though they have voter appeal, LOSTs are not necessarily the most efficient or most effective funding solution. While both fuel taxes and sales taxes are regressive, higher fuel taxes encourage the adoption of more fuel-efficient (or electric) vehicles or the use of alternative modes, whereas general sales taxes affect travel behavior only through their (generally modest) effect on income. In addition, because LOST-funded programs can cover decades and do not necessarily comport with state priorities, LOSTs' popularity, pervasiveness, and sheer size means that they can have outsized and sometimes contrarian effects on transportation outcomes in the state.

Because California policy is for regional agencies to incorporate county transportation plans into their TIPs and for state agencies to similarly incorporate regional TIPs into the state transportation improvement program, LOSTs are an important element in the state's transportation spending. Concern about keeping past promises in transportation programs is not limited to LOSTs, but their voter approval can make officials especially reluctant to depart from what was proposed in a LOST expenditure plan. However, given the long timeline from planning to implementation, many transportation projects in the pipeline reflect priorities from earlier years and do not include elements that reflect the full set of California's current goals and priorities, especially VMT and GHG mitigation. Under status quo priority assignment, road projects that increase VMT and emissions will continue to be implemented.

Finding 9: Existing funding programs have the flexibility to adjust spending to meet changed policy priorities, although this can be politically difficult.

CAPTI is an example of the state prioritizing its discretionary funding to meet state climate goals. The programming process of the Metropolitan Transportation Commission (the Bay Area's MPO) is an example of prioritizing discretionary funding at the regional level to support the implementation of its Sustainable Communities Strategy and improve transportation equity. Both examples illustrate the feasibility of using existing authorities and funding programs to prioritize state and regional goals. SB 743, which prioritized VMT as an impact of concern over delay, is an example of state law that changes evaluation priorities.

From a legal perspective, there are several pathways to modify decision criteria and reprioritize investments to give more attention to current policy imperatives. At the project level, changes are clearly easier to implement if the project is new and has not yet been fully fleshed out. However, changes also can be made to projects that have been moving forward for many years. Legacy projects could be paired with other projects so that the combined net effect is positive. Alternatively, the project design or scope could be modified. In some cases, an effective strategy might be for a project to be delayed until a time when its impacts are less critical, as might be the case with VMT-increasing projects after ZEVs are in widespread use.

It is recognized that changing investment plans poses special challenges and complexities. Depending on the specific project changes being sought, amendments to regional plans and programs might be needed. Some types of project changes would trigger additional environmental reviews. Taking these steps can be politically difficult but could also advance important policy goals.

Finding 10: California has the capacity to accomplish its goals.

While the challenges might seem daunting, California has the resources and the will to achieve its ambitious goals and lead by example. The state has a track record of accomplishment. California has on-the-ground, successful examples to show that it has led the way in designing and funding new transit systems and intercity rail services, led research and development on automation and other advanced technologies, mandated clean fuels and vehicles, invented better operations strategies, made effective use of demand management measures, and coordinated transportation and land use planning. The state is working hard to address its housing shortages and the high costs of housing, and it continues to be a major locus of innovation and creativity. It has met its first targets for GHG reduction and has developed tools to enable more difficult goals to be met. A resolve to carry policies through to implementation will clear the path to success.

7. Recommendations

Like the findings, the recommendations presented here cut across the white papers produced for this project. The recommendations are intended for further consideration and refinement with stakeholders. Implementation could proceed in a variety of ways: by agencies working together to resolve problems and overcome barriers, by the Governor issuing executive orders, or by the Legislature revising existing law or developing new legislation.

Our overarching recommendation is to take action to review and align the state's goals, taking steps to resolve conflicts, and then to review the state funding programs to bring them into alignment with policies and needed actions. To get all

agencies—state, regional, and local—on the same page regarding implementation of the state goals, we further recommend a review of the institutional relationships and assignments of responsibility and authority across all levels of government in California to make sure that the resources, mandates, and incentives are in place to ensure success. The recommendations outline steps to take to accomplish this.

Recommendation 1: Review and align state goals.

State agencies have been directed to establish and maintain a high-quality, resilient, multimodal transportation system that provides mobility and accessibility for all users and to see that the transportation system is safe and secure, meets GHG emission reduction targets, eliminates burdens for disadvantaged groups, supports economic development, protects the environment, and enhances public health and vibrant communities. These goals are listed in the CTP 2050. They are also established in legislation and executive orders and have been expressed in regulations and guidance documents. However, the language varies and so does the emphasis given to different goals. Some goals are more specific than others, and some include specific performance deadlines. Various laws and programs list some of the goals but not others.

While there is general agreement that all the goals are relevant, there appears to be less agreement on how to handle situations where proposed actions advance one goal but are in apparent conflict with others. This has been identified, for example, when a project that improves mobility also increases emissions. One reading is that legislative and executive directives have prioritized tackling climate change and environmental justice issues. But others interpret the goals as not having any particular priority or view priorities as applying in limited ways (for example, applying to plans but not to specific projects, or applying to the agencies directed to implement particular policies but not to other agencies, or applying only prospectively and not requiring changes in previous decisions). Some stakeholders interpret the law as prioritizing goals in proportion to budget levels.

Several strategies are available for clarifying policy and better aligning state goals. This could be done by the stakeholder agencies getting together and agreeing on priorities and conflict resolution processes, by the Governor issuing direction to the state agencies by means of an executive order, by a stakeholder process coordinated by an independent advisory committee, or by the Legislature clarifying intent through additional legislation or revisions to existing law. The outcome could take several directions: flagging some goals as higher priority than others, identifying goals to be achieved in the short run and others over a longer time period, requiring that overall plans and programs meet all goals and performance targets in each planning or programming period, even if particular projects do not do so (requiring compensatory action to make up for noncompliant projects), or identifying strategies for harmonizing the goals, such as by focusing on measures that can achieve multiple goals without setting any back.

Recommendation 2: Identify current policies, programs, and projects that could conflict with priority goals, and seek ways to resolve conflicts and harmonize policies and actions.

Just as goals deserve review, so do current policies, proposals, and actions, some of which might be undermining goal attainment. Current debates over added capacity and its ability to reduce congestion or induce travel are emblematic of what happens when potential conflicts in policy are not explicitly acknowledged and dealt with. Reviewing policies and practices to identify conflicts and impediments and removing them is a global best practice and should be instituted in California.

Today, climate change has reached the point where, without substantial intervention in the next two decades, severe damage will be unavoidable. In addition, past harms and continuing inequities in transportation and urban development

practices are finally being recognized, demanding change. To meet these obligations for action, it is necessary to focus expenditures on climate and equity to a greater extent than has happened to date. Policies that work counter to these objectives should be reconsidered. Programs that raise concerns about policy conflicts could be redesigned, and problem projects could be mitigated, restructured, delayed, or discontinued.

A particular issue that could be discussed is how to deal with projects that were initiated before contemporary goals, such as climate protection or environmental justice. Implementation processes for large capital projects often take a decade, or even several, from their initial proposal through planning and design to reach readiness for construction. As a result, some projects currently being considered for implementation were conceived before planning goals, such as GHG reduction or protection of disadvantaged communities, had risen to prominence. Older projects might also have been proposed before the availability of new designs and technologies that offer alternative solutions or cost-effective mitigation options.

Unless explicitly directed otherwise, many transportation agencies continue to pursue implementation of older projects; project sponsors and other supporters become committed to seeing the projects through to fruition, and agency staff come to see the projects as obligations. The projects might be intended to improve traffic flow, reduce travel times, or increase safety—all important goals. Yet these projects also could induce travel, which in turn could reduce the anticipated benefits and undermine the achievement of other urgently important goals. A review of projects in the pipeline could determine whether they will still be effective in delivering long-term benefits and whether alternative approaches could achieve the desired results at lower economic, social, or environmental cost. Such a review could also involve identifying best practices for goal achievement and avoidance or mitigation of adverse effects. Possible approaches include preparing integrated packages of measures programmed together rather than individual projects as a way to achieve multiple objectives, identifying actions that achieve multiple objectives without detracting from others, and new ways of addressing impacts of concern, such as mitigation banks.

Finding a balance between keeping past promises and advancing current objectives could be complex but might also be the only way to successfully address today's pressing goals in a timely fashion while equitably addressing longstanding problems

Recommendation 3: Review and revise transportation funding programs in light of California policy goals and the newly increased federal support for transportation.

While flagging policy conflicts is a valuable first step, a more comprehensive reevaluation of program funding levels and eligibility criteria in light of state goals is in order. To implement the GHG reductions envisioned, policy is needed that will redirect California's core transportation funding, including the STIP, SHOPP, and local and regional funds, away from auto-capacity projects and toward investments that reduce auto dependence, such as transit and active transportation.

The new federal infrastructure bill includes billions of dollars of transportation funding for California. Federal infrastructure funds will substantially increase California's ability to repair, maintain, and improve its transportation systems, and early policy guidance from the Federal Highway Administration and the Federal Transit Administration is well aligned with the state's goals. Thus, the state has a major opportunity to deliver better transportation at a faster pace and accelerate goal achievement.

In this context, the state should consider how to best utilize the new federal funds as well as its own transportation funds to maximize benefits. Recent studies show that the federal bill can advance new policies or simply continue business as usual, depending on the decisions that the states and US DOT make on projects. The CTP 2050 showed that

goal attainment is best achieved through a balance of investments coordinated with land use plans and including "stretch" programs for ZEVs, greatly expanded transit and nonmotorized travel options, and road pricing. Directing expenditures of federal dollars to meet state goals could accelerate their attainment and also could free up state and local funds, allowing greater spending on much-needed projects that improve environmental performance and social justice. Accomplishing this could require administrative moves within the existing legislative framework as well as moves that would require additional legislation.

As part of this effort, the state should consider increases in funding for its small, innovative programs. California has created a number of programs that improve equity and address pressing community needs, implement progressive projects in priority development areas, and test new ideas in transportation and housing. However, competition for funding from these programs is heavy, indicating that interest and need exceed currently available funding levels. An increase in funding would be beneficial.

Still, upping the funding for the state's small "AB 285" programs should not be mistaken as a fix for current funding issues. Even increases that expand these programs' funding multifold won't solve the problem if the state's biggest programs remain unaligned with state goals.

A simple way to improve the performance of the small funding programs would be to simplify their requirements. As a first step, the state should consider a one-stop application process for these programs. At present, each program has different applicant qualifications, criteria for evaluation, and deadlines. This increases administration costs and, for those with limited resources, can be a barrier to applying. A one-stop process for application submittal and review could reduce costs for all and increase access to these programs. Review processes could be collaborative, with multiple agencies participating or seconding staff to an organization that would organize the review process and handle administration.

Recommendation 4: Review and update the roles of transportation organizations at the state, regional, and local levels.

Institutions (legal frameworks, organizations, practices) reflect the issues and opportunities extant at the time of their establishment. For example, building safe, efficient transportation systems and supporting economic development have been basic objectives of transportation institutions for centuries. Over the past 50 years, objectives have broadened, and transportation agencies are expected to incorporate environmental values and social equity into their basic practices. Today, transportation agencies are increasingly expected to take on additional responsibilities, planning together with communities, the private sector, and officials from all levels of government to deliver investments that support a vibrant economy and a high quality of life for all. A review of the roles of transportation organizations might identify a need to update missions, organizational structure, staffing plans, and more to effectively meet current expectations.

California's complex, decentralized current institutional arrangements make it difficult to understand who is responsible for action and what levers are available to accomplish goals. This in turn makes it hard to hold any particular agency responsible for goal achievement. A review of transportation institutions and the assignments of responsibility, authority, and resources available to them could lead to identifying reforms that would produce improvements in transparency and efficacy. At the state level, this review would involve examining and possibly revising CalSTA, Caltrans, and CTC roles and responsibilities for establishing the state transportation vision and for implementation actions, including the selection of projects to make that vision a reality. The review could also extend to other state agencies that set policies and deliver projects and programs that affect transportation, including CARB, OPR, and the SGC.

Because regional plans are major inputs to state plans, a review of the state-regional relationship would also be in order. The review could examine the consistency of regional plans with state policy goals and the effects of assignments of responsibility and criteria for planning and project selection and prioritization. The results could include recommendations for changes to organizational responsibilities and authority to act as well as recommendations on funding and staffing for the agencies to make sure that they are adequately equipped to carry out the assignments they are given and deliver as expected.

At the regional level, MPO geographic scope, cross-border relations, board composition, voting rules, assignments of responsibility, and financial capacity could also be reviewed, with the aim of assuring that the MPOs have the organizational structure, legal authority, political support, and resources they need to effectively accomplish what is expected of them. This review would take into consideration the role of key inputs to regional plans and programs, including city and county land use and transportation plans and county transportation programs.

A forum on the role of MPOs could involve exploring opportunities to provide them with additional authority to make decisions about the transportation plans and programs within their jurisdictions, for example, to require local plan and program consistency with the SGSs as a condition of matching funds, or could identify ways to incentivize greater cooperation across the region and with state agencies on critical issues, such as freight corridors, interregional passenger connections, transit pricing and funding, housing and labor markets, and the resulting jobs-housing balance and affordability. The MPO discussion could also cover evaluation methods and performance measurement and reporting, matters that could improve both the agencies' own ability to assess outcomes and the ability of state agencies to put it all together into a statewide assessment of performance.

Reviews could extend to local transportation planning and expenditure issues. Such reviews could include the role of city and county plans and expenditure programs and their performance with respect to state goals. Other possible topics for discussion are local funding needs, for example, for active transportation, complete streets, and transit and paratransit operations, economic development strategies for improving jobs-housing balance, and reducing traffic problems. Local agencies and stakeholders are also likely to have recommendations on transportation-related social equity problems within their jurisdictions, and their identification of needed actions could help state agencies turn statements acknowledging the need for environmental justice into action plans.

Recommendation 5: Give MPOs additional authority to accomplish the goals that California expects of them.

California MPOs are expected, through their Sustainable Communities Strategies, to find ways to reduce VMT and to enable housing construction in sufficient quantities to meet the needs of the population and the economy. Yet they lack authority over the local transportation and land use plans that largely shape regional development patterns and the travel that stems from them.

California planning institutions have been designed to give localities considerable control over transportation and land use decisions. This approach can be responsive to local context and can provide meaningful opportunities for public engagement. The drawbacks are that many important planning considerations, from labor sheds to commuting patterns, cover more ground than the locality. Another drawback is that the local perspective is sometimes parochial. MPOs cover economic regions and are governed by a representative board of local officials. They engage with stakeholders from a variety of communities and businesses and cooperate with state and federal officials. Since the passage of SB 375, they have gained experience in negotiating coordinated transportation, land use, and environmental policies and strategies. This positioning should enable them to balance purely local interests with broader interests of the region, state, and beyond and to offer leadership on multimodal, integrated urban and regional planning.

In this context, MPOs should be given additional authority to approve transportation plans and programs within their region, ranging from policies on transportation pricing to local and regional street design standards. In addition, county and local plans should be required to be consistent with regional plans to be eligible for matching funds from state and regional sources. Some MPOs are already moving in this direction in their use of discretionary funds and programming authority; others should be encouraged and enabled to do so. Consideration should also be given to exploring opportunities to increase the funding available to the MPOs, either by shifting funds within current programs or by increasing funding of MPO programs that help the state meet multiple goals.

Recommendation 6: Redesign California's transportation plans to increase their impact.

While the CTP 2050 addresses many goals and sets forth an aspirational vision for the state's transportation system, its impact is reduced by its lack of detail on implementation, including who would need to take action and what authority and funding levels would be required. As a fiscally unconstrained exploration of transportation possibilities, it offers a view of a possible future, but does not show the way to get there. There are literally thousands of pages of additional state plans, including six modal plans and plans that address concerns such as traffic safety, but they provide only partial clarification on policies, priorities, and planned investments. Their timing and content is disjointed. Also, the state plan directly shapes only a portion of investments, because many key decisions rest with local and regional authorities.

The CTP's impact would be improved if, in addition to an aspirational, unconstrained vision, it included an alternative that showed what it could expect to accomplish with current authority and funding. Comparing a "constrained" scenario to the unconstrained vision would allow decision-makers to gauge which changes might be desirable. In addition, describing who was expected to take action, when, and with which resources would allow plan efficacy to be tracked and evaluated. Rethinking how to better "nest" the modal plans with the CTP and develop them in logical sequence could lead to shorter, more usable documents and clearer linkages among them.

In the context of investigating alternative planning strategies, it would also be useful to consider whether the current policy of assuming that the regional plans are "givens" makes sense, and whether regional and local project proposals should have to comply with state goals to be consistent with state and regional plans and included in state and regional funding programs.

Recommendation 7: Institute and independently evaluate demonstration programs and projects that can serve as test beds for innovations that would advance state goals and, when successful, can help establish best practices for contemporary goals.

Monitoring, evaluation, and revisions as needed are important for all programs and projects but are especially needed for those that are trying out new ideas. Innovations are occurring in many parts of the California transportation system and also in land use planning and projects. Considerable learning can occur by evaluating the effects of such innovations. Self-evaluation is useful to some extent, but it can also be limited by fear of admitting shortcomings. Instituting programs for independent monitoring and reporting on demonstration projects is a proven technique for speeding social learning and should be instituted more systematically in California.

8. Additional Recommendations on Plans, Funding, and Legal Issues

The white papers contain additional recommendations that add detail to the previous general recommendations. These additional recommendations are summarized here. The white papers provide additional discussion.

State Transportation Plans

1) Streamline the state transportation plans and the modal plans to make them more digestible and easier to review. Present background information in abbreviated form, use the same background information for all plans, and focus on policies and actions.
2) Require the CTP to evaluate an alternative that could be implemented under existing authority and funding levels as well as an unconstrained plan that is aspirational.
3) In each plan, summarize the major actions and proposals being made by the sponsor as well as the major actions and proposal being made by other agencies on which the state plan is relying. This should include planned actions by the MPOs and other relevant transportation organizations, such as railroads and port authorities, as well as anticipated funding and other actions from federal transportation agencies.
4) Incorporate a financial element in each plan (including the CTP) rather than in a separate document. Document the amount of money spent in the last planning period on each mode and the amounts estimated to be available over the next planning period, being explicit about uncertainties and identifying which funds are flexible. (This approach requires a consistent project classification and reporting system.) Identify the accounts of the funds and who has final decision authority over their expenditure.
5) Track accomplishments and flag problems. Require each plan to evaluate the progress made toward goal attainment under the previous plan, document what has changed since the last plan in terms of policy direction and priority, and set objectives for goal attainment for future years (requires criteria). Identify which organizations are responsible for implementing each policy in the plan.
6) Incorporate an implementation element in each plan. Identify the lead agency, partnerships, funding, and other resources necessary to implement planned actions. Include a timeline for action.
7) Develop a modal plan for streets and highways that provides guidance and direction on how California will balance fix-it-first, environmental quality, and equity issues. (Streets and highways are the only mode over which state agencies have considerable authority but which does not have a formal modal plan, although there are many documents dealing with operation and maintenance, safety, an so on that present details on highway investments.)
8) Add a section to the CTP that explicitly discusses how the modal plans will work together to produce an integrated multimodal system. Discuss steps to be taken to assure that California's investments will result in cost-effective, convenient transportation options that meet state goals and make effective use of federal, state, and private investments in transportation.
9) Add a section to the CTP that explicitly discusses the assumptions being made about new technologies, assesses the uncertainty and risk associated with those assumptions, and discusses contingency plans should the assumptions not pan out.
10) Require requests for matching funds over which state agencies have discretion to show compliance (conformity) with state policies.

MPO Plans

1) Improve data reporting by mandating that MPOs use the same classifications for funding allocations, such as for categorizing projects by mode (roadways vs. transit vs. active transport) and by purpose (new facilities vs. M&O and rehab). This facilitates comparing funding allocations across MPOs.
2) Provide stronger mandates and incentives for local performance in response to SB 375, and link receipt of state- and MPO-directed funds for transportation, housing, and associated planning efforts to local SB 375–supportive actions, such as upzoning, parking deregulation, and RHNA and RTP/SCS conformity.
3) Align state transportation funding with goals for reducing GHGs and VMT and improving access and mobility for disadvantaged communities by prioritizing and spending state transportation dollars for projects that are demonstrated to reduce GHGs and VMT and advance equity.
4) Improve performance tracking for RTP/SCS progress, with consequences for getting off track. Do more than just monitor regional development indicators, such as VMT, mode choice, and housing density and type, and instead identify and regularly monitor interim RTP/SCS performance progress along the plan trajectory, and impose consequences for getting off track, similar to air quality conformity requirements, for which control measures are imposed when needed.
5) Require MPOs to monitor SCS compliance and to publicly identify localities whose land use policies do not conform to SCS performance goals, such as increased density and parking deregulation.

Funding

1) Align funding with program goals so that programs that advance high-priority state goals receive more funding.
2) Revise program evaluation criteria to introduce more flexibility so that the overly restrictive, burdensome, or narrow criteria are not precluding worthy projects from pursuing funding that would advance progress on the state's climate goals.
3) Investigate the possibility of a staffed clearinghouse to assist interested applicants to identify and match to appropriate funding sources so that small projects and smaller agencies are better able to pursue projects.
4) Increase funding and improve allotments for disadvantaged communities, including reserving a percentage of program funds specifically for disadvantaged communities, as the Greenhouse Gas Reductions Fund currently does.
5) Increase the involvement of, and funding through, MPOs to leverage their institutional knowledge of state goals as reflected in their development of SCSs, enabling more regional and strategic coordination of transportation funding than is attained through LOSTs at the county level.
6) Pursue opportunities to steer regional Congestion Mitigation and Air Quality program investments toward meeting multiple state goals with projects such as bicycle and pedestrian facilities and programs, travel demand management, car sharing, electric vehicle infrastructure, and bike sharing.
7) Improve the consistency and availability of data on state and local transportation investments.
8) Investigate the process by which applicant agencies develop and apply for projects to better understand how program criteria and application processes shape project designs and how state funding might influence which types of climate advantageous projects are pursued and why.

Legal Issues

1) Leverage existing funding flexibility in updates to state-level program guidance to prioritize projects that reduce VMT, reduce or avoid GHG emissions, and improve social equity.
2) Build flexibility into the language of newly created funding programs, but not so much flexibility that the program loses its ability to target a particular need or goal.
3) Direct state discretionary funding to MPOs and local entities for equity projects and projects that reduce VMT and GHG emissions.
4) Condition new funding programs on regional and local transportation agencies affirmatively meeting state goals and using metrics to select projects for funding based on VMT- and GHG-reduction performance, among other factors.

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Staff Report

June 13, 2022

TO: Mono County Local Transportation Commission

FROM: Bentley Regehr, Planning Analyst

SUBJECT: Resource Efficiency Plan Update and Vehicle Miles Traveled (VMT) Thresholds of Significance

RECOMMENDATIONS
Provide any desired direction to staff.

FISCAL IMPLICATIONS
SB-2 grant money and contributions from the Overall Work Program (OWP) were used to hire a consultant to complete the project.

DISCUSSION

Resource Efficiency Plan

The 2014 Resource Efficiency Plan (REP) was prepared as part of a targeted update to the General Plan under the Sustainable Communities Planning Grant. The REP outlined strategies to reduce energy consumption, support local sustainability initiatives, and establish compliance with California climate change legislation. Recently, the State of California passed legislation that targets a 2050 statewide goal of reducing greenhouse gas (GHG) emissions by 80 percent of 1990 levels. The County used SB-2 grant funds to hire Ecoshift in the fall of 2021 to update the REP. The REP updates reflect the results of the 2020 emissions forecasting and current modeling that reflects recent projects developed by the County and changes in State policy.

The REP includes the following:

(1) An assessment of local activities that consume resources and generate GHG emissions.
(2) Mono County's strategy to improve resource efficiency and reduce GHG emissions.
(3) The steps necessary to successfully implement the updated REP.

The REP update includes baseline GHG inventories for both County government operations and for the community at-large for the calendar year 2019. The 2014 REP proposed approximately 120 actions appropriate for the rural nature of the county. They included implementing net-zero energy policies for County facilities, replacing and consolidating vehicles in the County fleet, and strategic opportunities to improve resource efficiency by residents, businesses, and visitors. This REP update sets new reduction targets consistent with the 2017 California Air Resources Board (CARB) Scoping Plan based on updated inventories and forecasts for the County and recent statewide policies and mandates. The REP policies were adopted as part of the County's General Plan in 2015 and have not been modified as part of this update.

The update also allows for compliance with §15183.5 which allows for California Environmental Quality Act (CEQA) streamlining. Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as an REP. Project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. This allows for an expedited review of GHG impacts for most development projects.

VMT Thresholds of Significance

California Environmental Quality Act (CEQA) Guidelines encourage public agencies to develop and set generally acceptable thresholds of significance to be used in determining the significance of a project's environmental effects. CEQA Guidelines Section 15064.7(a) defines a threshold of significance as an identifiable quantitative, qualitative, or performance level of a particular environmental effect.

Recent changes in state law under SB-743 require the County to use vehicle miles traveled (VMT) instead of Level of Service (LOS) as the metric to evaluate transportation impacts under CEQA. LOS analyzes level of congestion generated by a project, while VMT analyzes the total vehicle miles traveled generated by a project. Establishing a set of thresholds and screening criteria for VMT allows the County to streamline qualifying projects, thereby reducing the time and cost of the CEQA analysis.

Using Senate Bill-2 (SB-2) funds, the County hired Ecoshift in the fall of 2021 to establish reasonable and acceptable thresholds of significance for VMT. Table 1 shows the screening parameters established by the study. If a project qualifies for one the screening parameters, then no additional analysis is required for VMT under CEQA. Table 2 shows the thresholds of significance for a project. If the project does not exceed any of the thresholds listed, then no additional analysis is required for VMT under CEQA. As part of the scope of work contract, Ecoshift also provided a VMT mapping tool that allows staff to easily calculate and evaluate VMT generated by a project on a parcel specific basis.

To verify threshold levels, CEQA analysis of recent past projects were reviewed and the following determinations were made: 1) Projects found to have no significant VMT impacts would have been exempted under the proposed thresholds, and 2) The thresholds would not exempt projects with the potential for significant VMT impacts based on comparisons to past projects.

Table 1: Screening Criteria for VMT

TYPE	SCREENING CRITERIA
Located in a VMT Efficient Area (see green areas in Figures ES-1 and ES-2)	• Residential project located in an area where VMT/Capita is 15% or more below the base year countywide average less Mammoth Lakes • Office/Business Professional Employment project located in an area where VMT/Employee is 15% or more below the base year countywide average less Mammoth Lakes • Industrial project located in an area VMT/Employee is at or below the base year countywide average less Mammoth Lakes[1]
Small Projects	• Generates less than 237 daily unadjusted trip ends
Proximity to Transit	• Located within ½ a mile of an existing or planned major transit stop or an existing stop along a high-quality transit corridor[2,3]
Retail/Recreational/	• 200,000 square feet of total gross floor area or less • A retail project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area.
Local-Serving Public Facilities	• 200,000 square feet of total gross floor area or less • A quasi-public facility project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area.
Affordable Housing	• 100% affordable units based on County criteria
Mixed Use Project	• Project's individual land uses should be compared to the screening criteria above
Redevelopment Project	• Proposed project's total project VMT is less than the existing land use's total VMT

Table 2: Thresholds of Significance for VMT

LAND USE TYPE	THRESHOLD FOR DETERMINATION OF A SIGNIFICANT VMT IMPACT[1]
Residential	15% below Baseline Countywide Average of VMT/Capita Less Mammoth Lakes VMT/Capita: 29.1 .85 = **24.8 VMT/Capita**
Office / Business / Warehouse / Manufacturing	15% below Baseline Countywide Average of VMT/Employee Less Mammoth Lakes VMT/Employee: 11.95 x .85 = **10.2 VMT/Employee**
Industrial[2]	VMT/Employee is at or below the base year countywide average less Mammoth Lakes = **11.95 VMT/Employee**
Retail	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Hotel/Motel	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Recreational	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Medical/Hospital	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Public Facilities	Does not contain regional public uses
Mixed Use	Analyze each land use individually per above categories and evaluate independently
Redevelopment	Apply the relevant threshold based on proposed land use

Notes:

1. Projects that exceed these thresholds would have a significant impact under CEQA.
2. Heavy-duty truck VMT would not be counted against Industrial/Warehouse projects, only employee-oriented commuter VMT.

Figure ES-1: VMT per capita by community area

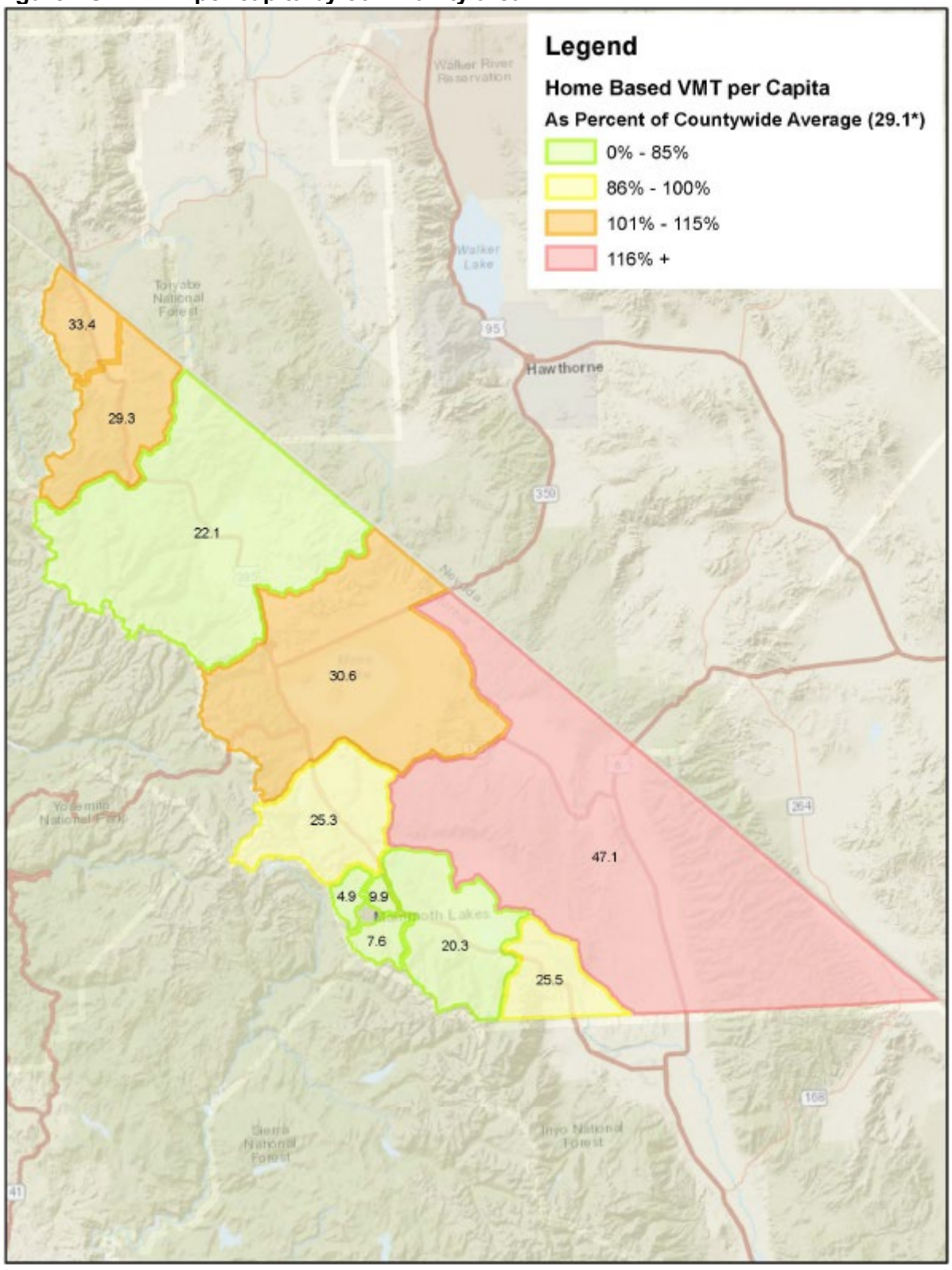
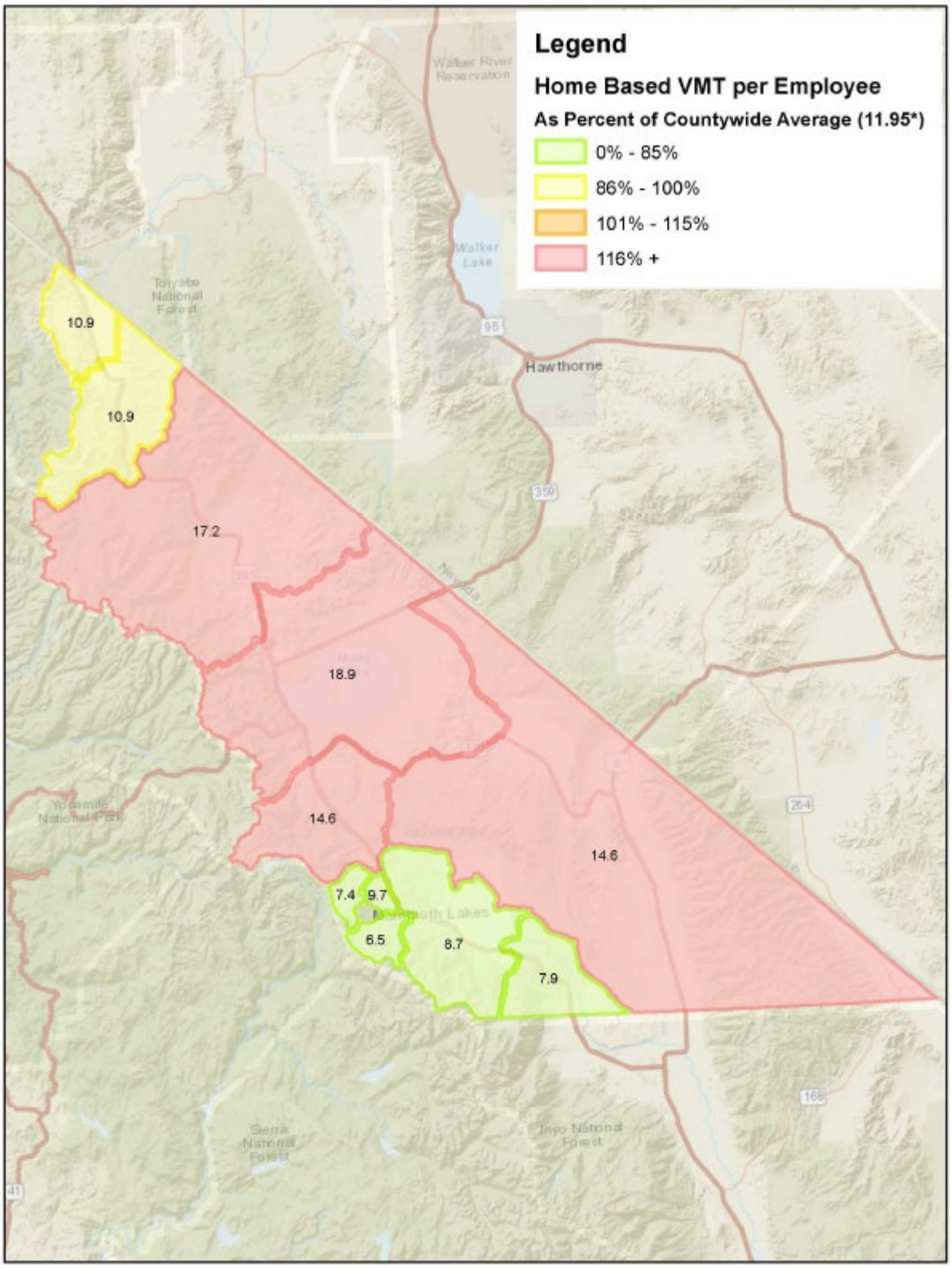


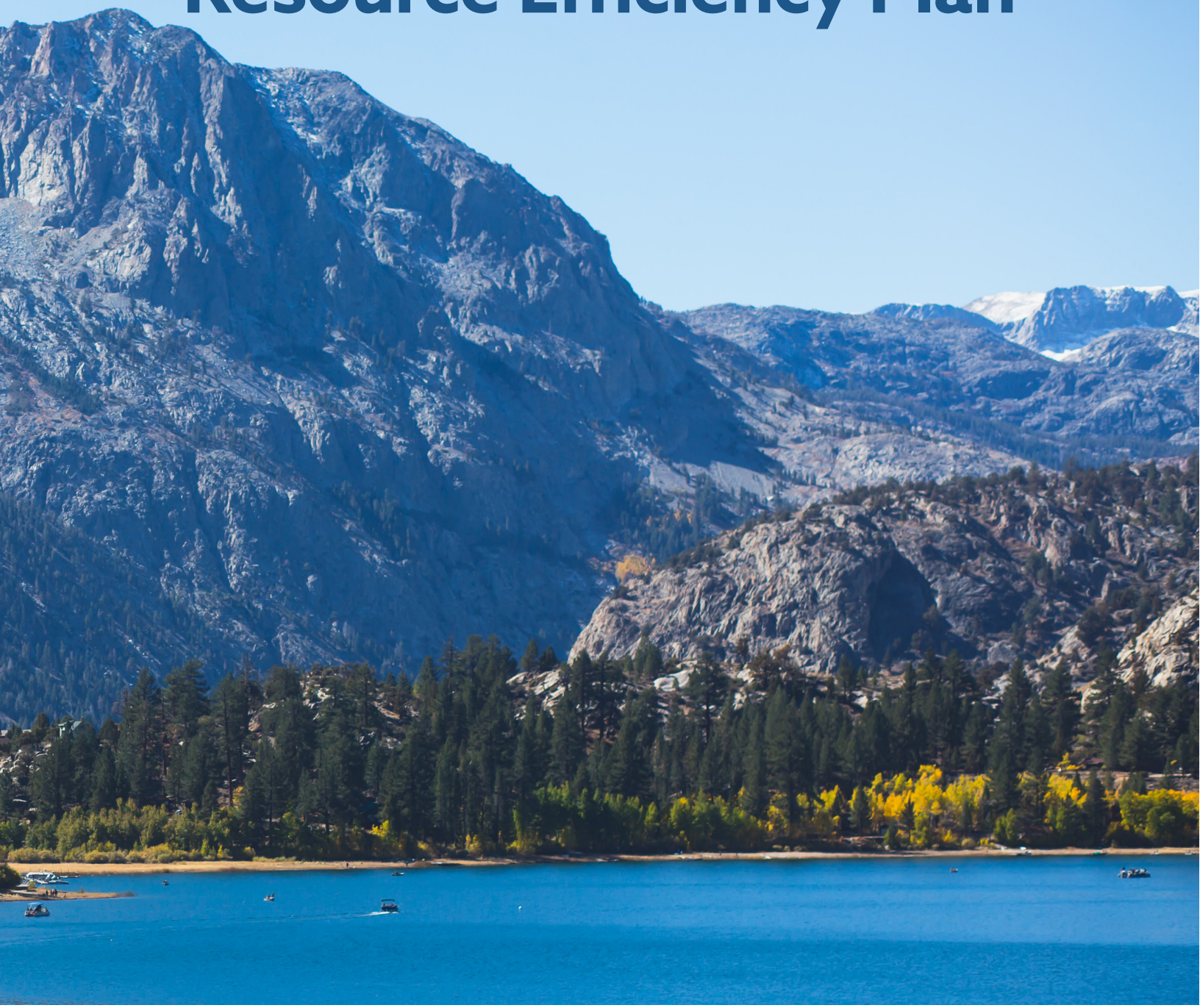
Figure ES-2: Home Based VMT per Employee



ATTACHMENTS

1. Resource Efficiency Plan Update
2. Technical Memo for VMT Thresholds

Mono County Resource Efficiency Plan



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Acknowledgements

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List of Abbreviations

Abbreviation	Definition
AB	Assembly bill
C	Conservation Element
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDP	Census-Designated Place
CEQA	California Environmental Quality Act
CFL	compact fluorescent light bulb
CO	Conservation and Open Space Element
DOF	Department of Finance
E.O.	Executive order
EDD	Employment Development Department
EPA	Environmental Protection Agency
GBUAPCD	Great Basin Unified Air Pollution Control District
GHG	greenhouse gas
GPS	global positioning system
HVAC	heating, ventilation and air conditioning
IMACA	Inyo Mono Advocates for Community Action, Inc.
kW	kilowatt
kWh	kilowatt hour
LED	light-emitting diode
LGOP	Local Government Operations Protocol
LU	Land Use Element
MPO	Metropolitan Planning Organization
MTCO2e	metric tons of carbon dioxide equivalent
MW	megawatts
PACE	property assessed clean energy
REP	Resource Efficiency Plan
RPS	Renewables Portfolio Standard
SB	Senate bill
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SGC	Strategic Growth Council
VMT	vehicle miles traveled

1. INTRODUCTION

In 2012, Mono County was awarded a Sustainable Communities Planning Grant from the California Strategic Growth Council (SGC) to prepare a targeted update to the County's General Plan, including a Resource Efficiency Plan (REP).

Recently, the State of California has passed legislation with the purpose of reducing Greenhouse Gas (GHG) emissions. These policies include:

- Executive Order (EO) S-3-05, which recommends a 2050 statewide long-term goal of reducing GHG emissions by 80 percent below 1990 levels;
- SB 100, which established that 100% of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045;
- EO B-55-18, which established a statewide goal to achieve carbon neutrality by 2045; and
- EO N-79-20, which set a statewide target of 100 percent of in-state sales of new passenger cars and trucks being zero-emission by 2035.

Therefore, this REP has been updated to ensure that the policies outlined in the 2015 REP are consistent with the state climate directives and demonstrate that the strategies in the plan will meet the long-term statewide goal for reduction of GHGs. Specifically, the REP has been updated to meet the standards in the California Air Resources Board (CARB) 2017 Climate Change Scoping Plan (CARB 2017). CARB is currently in the process of developing a 2022

Climate Change Scoping Plan to address carbon neutrality by 2045. The 2022 Climate Change Scoping Plan was not available at the time of this REP update.

In addition, the REP has been updated to reflect the results of the 2020 emissions forecasting and current modeling that reflects recent projects developed by the County and changes in State policy.

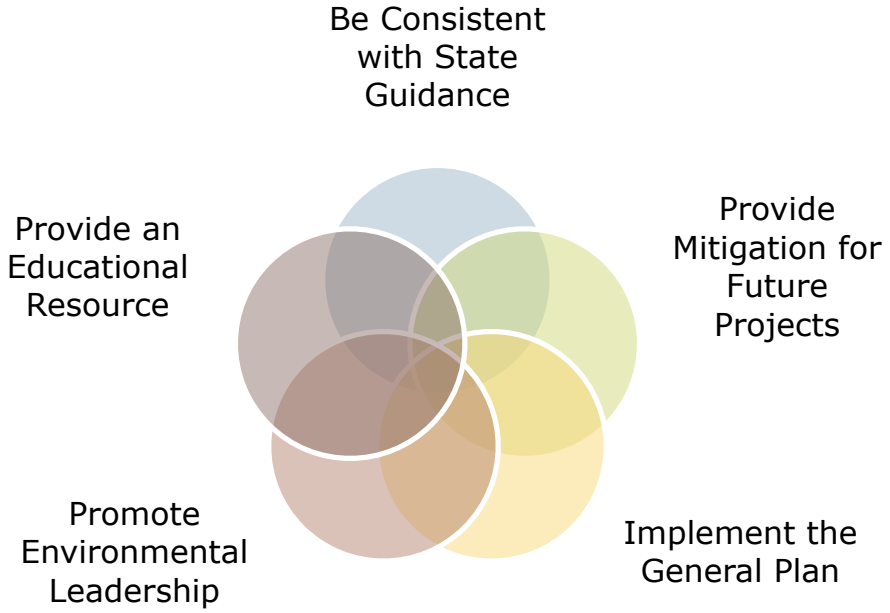
This updated REP presents Mono County's path toward creating more sustainable, healthy, and livable communities. The strategies outlined in this Plan will reduce greenhouse gas (GHG) emissions and provide energy, fuel, water, and monetary savings while improving the quality of life for residents in Mono County.

The REP includes the following:

- An explanation of local context and the framework under which this Plan was created (**Introduction – Chapter 1**);
- An assessment of local activities that consume resources and generate GHG emissions (**Emissions Sources, Forecasts, and Targets – Chapter 2**);
- Mono County's strategy to improve resource efficiency and reduce GHG emissions (**Resource Efficiency Measures – Chapter 3**);
- The steps necessary to successfully implement this REP (**Implementation – Chapter 4**).

In developing this REP, the County recognizes the compelling need for a locally based approach to maximize the efficient use of resources and reducing emissions within the community and from government operations. **Figure 1** identifies some of the County's motivations to prepare the REP. With this plan, the County charts a comprehensive strategy to further improve resource efficiency in a manner consistent with state guidelines and regulations, and to afford cost-effective opportunities to existing and future residents, businesses, and development projects to contribute to a more sustainable community. The REP also provides a framework for environmental leadership and an educational resource to the community.

Figure 1: Mono County Resource Efficiency Planning Motivations



Purpose and Scope

The purpose of the REP is to identify sources of GHG emissions occurring in the unincorporated county and to establish policies and programs that reduce emissions within the County's jurisdictional or operational control. These sources include energy use, water consumption, transportation, waste disposal, and agricultural practices. They specifically exclude naturally occurring emissions sources such as wildfires.

This REP update includes baseline GHG inventories for both County government operations and for the community at-large for the calendar year 2019. Where high-quality data wasn't available for 2019, 2020 was used as a proxy. A 2005 inventory prepared for community activities was used as a starting point for calculating GHG emissions reduction targets consistent with Assembly Bill (AB) 32. While AB 32 identifies a statewide goal in relation to 1990 levels, the availability of data can compromise a jurisdiction's ability to accurately assess emissions generated from activities in the community in 1990. In lieu of 1990 emissions estimates CARB recommends that jurisdictions assess emissions for a calendar year between 2005 and 2008, in this case 2005.

GHG emissions from Mono County government operations in 2019 totaled approximately 12,956 metric tons of carbon dioxide equivalent ($MTCO_2e$) emissions, an increase of 11% from 2010 levels. GHG emissions within the broader unincorporated areas totaled 352,213 $MTCO_2e$ in 2019, a decrease of 4% from 2010 levels and a reduction of 19% from 1990 levels. Without action by the County to reduce emissions, by 2050 government emissions would decrease by 26% to 9,533 $MTCO_2e$ compared to 2010 levels, while community emissions would decrease by 43% to 185,650 $MTCO_2e$ compared to 2005 levels[1].

The 2014 REP proposed approximately 120 actions relevant to the rural and mountainous nature of the county. They included implementing net-zero energy policies for County facilities, replacing and consolidating vehicles in the County fleet, and strategic opportunities to improve resource efficiency by residents, businesses, and visitors. Actions from the 2014 REP reduced 2020 emissions by approximately 111,620 MTCO2e. This REP update sets new reduction targets consistent with the 2017 CARB Scoping Plan based on updated inventories and forecasts for the County and recent statewide policies and mandates. The REP policies were adopted as part of the County's General Plan in 2015. Goals, objectives, policies, and actions were included in the Conservation and Open Space, Circulation, and Land Use elements.

In addition, the REP includes 38 megawatts (MW) of additional renewable energy including 30 MW as part of the Casa Diablo IV project, which became operational in 2022. This project is estimated to result in additional GHG emissions reductions of 89,000 MTCO2e per year[2] over 2019 modeled conditions.

[1] Emission levels for 2005 were available for the Community, but not for Government Operations. Therefore, the comparison year for Government Operations is 2010.

[2] Mono County. 2014. Draft Target Setting Working Paper.

Local Context

Located between the Sierra Mountain range and the Nevada state line, Mono County is a rural California county characterized by a small year-round population, a tourism-based economy, a considerable amount of land under federal or state ownership, and a diverse range of climate conditions. Identifying and achieving sustainability goals in Mono County requires a unique approach. This REP is designed to highlight the County's rural setting, small communities, and remote location.

Rural Character and Limited Access - Development in and access to Mono County have traditionally been limited by the distance from nearby metropolitan areas (six hours by car to Los Angeles or San Francisco, three hours to Reno) and limited transportation access. US Route 395, the county's primary transportation route, runs the entire length of the county, while State Route 120 and US Route 6 connect the county to Nevada, Yosemite National Park, and California's Central Valley, over routes that are frequently closed during winter months due to snow accumulation. The Eastern Sierra Transit Authority and Yosemite Area Regional Transit System operate intercity bus service along the US 395 corridor. The County has one small airport with a limited number of flights to SFO and Los Angeles.

Community Planning Areas - As of 2020, more than half of Mono County's approximately 13,295 full-time residents live in Mammoth Lakes, the only incorporated community in the county. The other 5,596 year-round residents live in a number of small communities distributed throughout the county. **Table 1** contains Mono County Regional Transportation Plan population estimates for 2020.

Table 1: Mono County Communities (with 2020 Population)

Community	2020 Population
Town of Mammoth Lakes	8,785
Antelope Valley	1,349
Bridgeport Valley	613
Mono Basin	419
June Lake	671
Long Valley/Wheeler	1,638
Tri-Valley	992
County outside of CDPs	679

Source: Mono County 2019 Regional Transportation Plan[3]

Tourism-Based Economy - Mono County attracts more than 1.7 million visitors annually from all over the world. Tourism is the dominant sector of the local economy, generating an estimated $601 million in visitor spending in 2019 (Mono County Economic Development Dept. 2019). Major destinations include the Mammoth Mountain and June Lake resorts, the unique ecosystem of Mono Lake, and the ghost town of Bodie.

Federal and State Land Ownership - Approximately 94% of the land in Mono County is publicly owned, consisting of 88% by the federal government and 6% by the state of California, the Los Angeles Department of Water and Power, or Native American tribal groups.

Seasonal Conditions – As with most communities located at elevations higher than 6,000 feet in or near the Sierra Mountain range, Mono County is exposed to a variety of weather conditions and dramatic temperature swings. The County receives an average of 90 inches of snow and 15 inches of rain annually. Mono County also has an average of 277 sunny days per year.

[3] Community-level forecasts do not necessarily match County total because community-level census data was not available for 2019.

Local Efforts to Date

Many great efforts have already been made and numerous policies have been adopted to promote resource efficient practices and reduce emissions throughout Mono County. Prior to the REP, these practices and policies have existed in a variety of different documents and/or implemented by County staff through informal practices. The REP compiles these efforts into one document and will serve as a go-to resource for best practices for the County and community to reduce individual and collective resource consumption and emissions.

County Resource Efficiency Actions

The County has established an Energy Task Force and is in the process of implementing numerous energy efficiency, renewable energy, and transportation actions at County facilities, including:

2022

- 9.6 kW Solar array and back-up battery
- Election office renovation
- Electric Vehicle Charging Station at Mono County Civic Center
- Electric Vehicle Charging Station at Memorial Hall/Bridgeport Campus
- Transition to EV fleet

2020

- Mono County Civic Center (new office building for County employees that is more energy efficient)

2019

- Gus Hess Park Electric Vehicle Charging Station

2018

- Solar Pavilion in Lee Vining

2017

- Biomass Boiler

Regulatory Framework

The state of California is the 15th largest emitter of greenhouse gas in the world, ultimately accounting for 2% of global GHG emissions. However, the state has been proactive in working to reduce emissions and has a long history of proven leadership in addressing energy and climate issues spanning the last 40 years. Numerous initiatives in California address climate change, with the majority of legislation passed between 2000 and the present day. These initiatives have strengthened the ability of entities in California to engage in accurate data collection and have created ambitious targets and regulations that have and will continue to reduce resource consumption and GHG emissions.

California's efforts have established the state's role as the leader in the United States for climate planning strategies, and have garnished worldwide attention and accolades. Efforts to address climate change, reduce consumption of resources, and improve energy efficiency led by state legislation or programs are described below.

Executive Order S-3-05

Executive Order (E.O.) S-3-05, signed in 2005, declared that California is vulnerable to the impacts of climate change through reductions in the Sierra Nevada snowpack (a major source of water for the state), reduced air quality, and rising sea levels. E.O. S-3-05 also set the following GHG reduction goals for the state:

- Reduce emissions to 2000 levels by 2010
- Reduce emissions to 1990 levels by 2020
- Reduce emissions to 80% below 1990 levels by 2050
- The California Global Warming Solutions Act of 2006 (AB 32)

The California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, codifies the goals set in E.O. S-3-05 and sets a target for the state to reduce its total GHG emissions to 1990 levels by 2020 through a series of market-based and regulatory mechanisms. These mechanisms are discussed in the AB 32 Scoping Plan, developed by the California Air Resources Board (CARB) and released in 2008. Actions in the Scoping Plan include producing 33% of the state's electricity from renewable sources by 2020, implementing clean car standards, and developing a cap-and-trade program for major stationary sources. The Scoping Plan also identifies local governments as strategic partners to achieve the statewide reduction goal and establishes a GHG emissions reduction of 15% below existing levels as being comparable to a return to 1990 levels.

AB 32 requires CARB to update the Scoping Plan at least once every five years. The first major update to the Scoping Plan was adopted by CARB on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal established in E.O. S-3-05, though not yet adopted as state law, and observes that "a mid-term statewide emission limit will ensure that the state stays on course to meet our long-term goal." The Scoping Plan update does not establish or propose any specific post-2020 goals, but identifies such goals adopted by other governments or recommended by various scientific and policy organizations.

2007 Amendments to the State CEQA Guidelines (SB 97)

Senate Bill (SB) 97, signed in 2007 and effective in 2010, requires projects to estimate GHG emissions associated with project-related vehicle traffic, energy use, water use, and construction activities as part of the environmental review process under CEQA. Projects located in jurisdictions with a Qualified GHG Reduction Strategy can streamline GHG evaluation by showing compliance with the strategy. A Qualified GHG Reduction Strategy must satisfy the following six requirements identified in State CEQA Guidelines Section 15183.5(b):

a) Quantify GHG emissions, both existing and forecast over a set time period, from activities within a defined geographic area.

b) Establish a level below which GHG emissions from activities covered by the plan are not cumulatively considerable, based on substantive evidence.

c) Identify and analyze the GHG emissions as a result of specific actions or categories of actions anticipated within the defined geographic area.

d) Specific measures or a group of measures, including performance standards, which would collectively achieve the specified emissions level if implemented on a project-by-project basis, as demonstrated by substantive evidence.

e) Establish a mechanism to monitor the plan's progress toward achieving the level and to require revisions to the plan if it is not achieving the specified levels.

f) Be adopted in a public process following environmental review.

All six requirements are addressed through development and adoption of this REP.

2017 Scoping Plan

The 2017 Scoping Plan for Achieving California's 2030 Greenhouse Gas Target (Scoping Plan or 2017 Scoping Plan) identifies how the State can reach our 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

Executive Order Establishing 2030 Emissions Target (EO B-30-15)

Executive Order B-30-15 sets a 2030 goal of reducing emissions 40 percent from 2020 levels. The EO requires consideration of climate change impacts in the State's Infrastructure Investment Plan and in all state planning and investment decisions. The EO also sets principles for the state's action to address climate impacts and calls for monitoring of state progress.

Executive Order to Achieve Carbon Neutrality (EO B-55-18)

Executive Order B-55-18 calls for Statewide carbon neutrality by 2045. The EO sets the following goals for the state:

- A new statewide goal is established to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.
- The California Air Resources Board shall work with relevant state agencies to develop a framework for implementation and accounting that tracks progress towards this goal.
- CARB shall work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goals.
- CARB, the California Environmental Protection Agency, the California Natural Resources Agency, and the California Department of Food and Agriculture shall include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.
- All policies and programs undertaken to achieve carbon neutrality shall seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities.

- All policies and programs undertaken to achieve carbon neutrality shall be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality and native plants and animals.
- State agencies will engage the support, participation, and partnership of universities, businesses, investors, and communities, as appropriate, to achieve the goals contained in the EO.

CA Global Warming Solutions Act of 2016 (SB 32)

SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's Executive Order B-30-15.

California Renewables Portfolio Standard (SB 100)

Senate Bill (SB) 100 established a landmark policy requiring renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers by 2045.

Short-Lived Climate Pollutants (SB 605 and SB 1383)

SB 605, which was signed in September 2014, required CARB to develop a plan to reduce emissions of short-lived climate pollutants (SLCPs). CARB approved the Short-Lived Climate Pollutant (SLCP) Reduction Strategy in March 2017 with a goal of reducing emissions of high global-warming potential gases with short atmospheric lifetimes. SLCPs include the greenhouse gases methane and hydrofluorocarbons (HFC), and anthropogenic black carbon. State law mandates a 40 percent reduction in methane and HFC emissions by 2030 and a 50 percent reduction in anthropogenic emissions of black carbon by 2030.

SB 1383 directed CARB to approve and begin implementing the SLCP Reduction Strategy. SB 1383 also set statewide emissions reduction targets specifying a 40 percent reduction in methane, a 40 percent reduction in HFCs, and a 50 percent reduction in anthropogenic black carbon below 2013 levels by 2030. SB 1383 also established statewide targets to reduce statewide disposal of organic waste by 50 percent below 2014 levels by the year 2020, and a 75 percent reduction below 2014 levels by 2025.

SB 375

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocations in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Zero Emission Vehicle Target

EO N-79-20 requires CARB to develop regulations to mandate that 100 percent of in-state sales of new passenger cars and trucks are zero-emission by 2035. In addition, the CARB is to develop regulations requiring operations of medium- and heavy-duty vehicles to be 100 percent zero emission by 2045 where feasible, with the mandate going into effect by 2035 for drayage trucks.

Relationship to the General Plan

The 2014 REP was developed in conjunction with the Mono County General Plan update to identify sources of GHG emissions occurring in the unincorporated county, and established policies and programs to reduce resource consumption and associated emissions within the County's jurisdictional or operational control.

The 2014 REP policies, actions, and reduction targets became a part of the Mono County General Plan, which was adopted in 2015. Embedding GHG reduction and resource efficiency targets in a General Plan affords a local government considerable discretion to craft an approach that responds directly to its local conditions and circumstances. California Government Code Sections 65300.7 and 65301.5 establish the Board of Supervisors' legislative authority regarding the General Plan, and its ability to exercise discretion to tailor the contents of the General Plan to fit local conditions and circumstances, so long as General Plan policies and actions meet minimum requirements of state legislation. When the County addresses GHG emissions within the context of the General Plan, this same authority and discretion extend to (a) setting a GHG reduction target, (b) identifying emissions reduction strategies to achieve the target, and (c) determining the desired degree of participation needed to achieve the target, considering local conditions and circumstances.

While local governments serve an important role as strategic partners in achieving California's GHG reduction goals identified in the 2017 Scoping Plan, along with SB 32, SB-100, AB 32, and EO B-30-15, there is currently no regulatory requirement for Mono County to set a specific fair-share GHG reduction goal, nor are there penalties imposed for falling short of established goals. While compliance with AB 32 is not a requirement for local jurisdictions, demonstrating consistency with statewide reduction goals can help Mono County to qualify for incentives such as grant funding.

Resource Efficiency Planning Process

The County developed the 2022 REP using the iterative five-step process described in **Figure 2**. This document fulfills steps one through three and provides a framework to complete steps four and five. Step five, evaluating progress, helps the County estimate the effectiveness of this REP on an annual basis and determine if additional measures should be implemented.

Figure 2: Five-Step Resource Efficiency Planning Process

The remainder of this document elaborates on how the County has or will complete each of the steps in the process and achieve the resource efficiency targets.

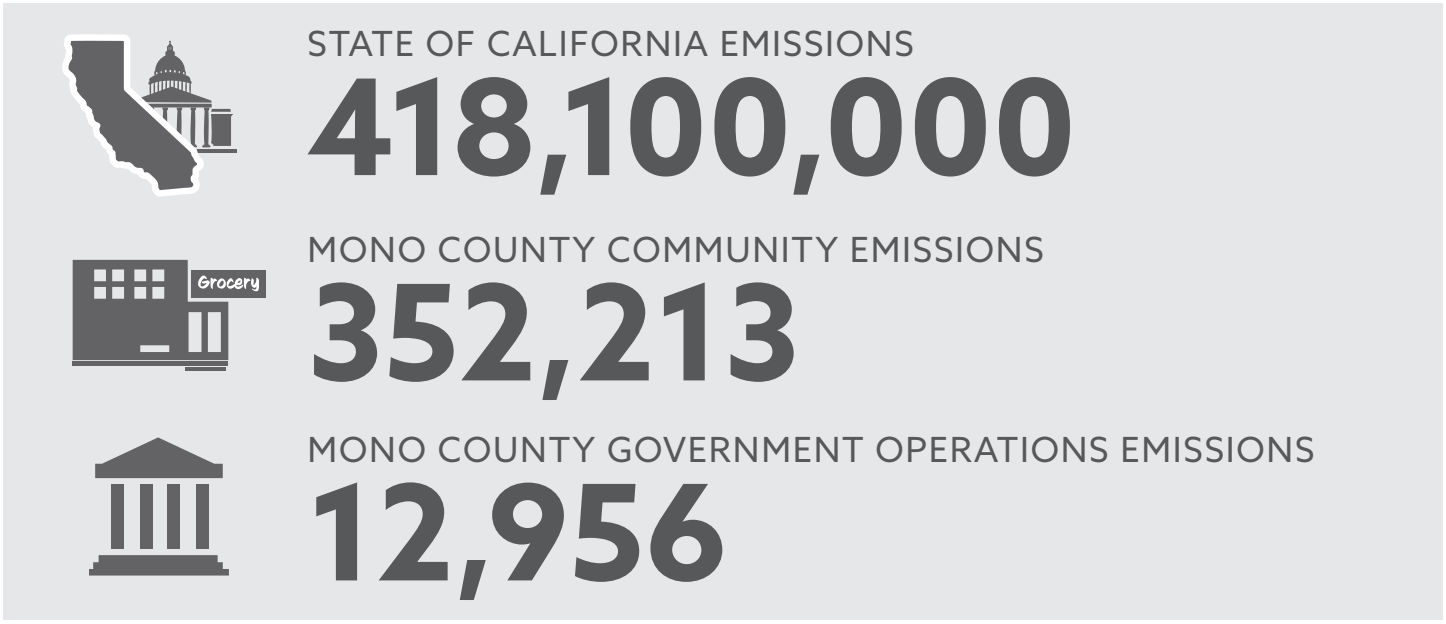
2. EMISSIONS SOURCES, FORECASTS, AND TARGETS

This component of the REP establishes a baseline for the calendar year 2010 by inventorying GHG emissions occurring in the community and from County operations. The inventory collects information on resource consumption patterns (activity data), calculates the resulting GHG emissions (baseline greenhouse gas emissions), identifies likely changes or growth in future resource consumption (growth indicators and forecasts), and assists in determining the needed reductions in GHG emissions and resource consumption (resource efficiency targets).

As part of the REP planning effort, the County completed GHG emissions inventories for 2005 and 2010. The local resource consumption and emissions profile of both the community and County government operations, as well as California's statewide emissions, are identified in **Figure 3**.

State, community, and government operations inventories should be considered as subsets of one another. County government activities often occur wholly or partially within the unincorporated county and thus are included in the aggregated community activity data and resulting emissions. Likewise, community emissions identified in the unincorporated county are a part of the California statewide inventory. The relationship between the three inventories illustrates the scale at which Mono County contributes to California's emissions, and emphasizes the shared role of the state, community, and County government to reduce emissions.

Figure 3: 2019 Emissions Profiles (MTCO2e)



In California, many communities utilize the CARB Local Government Operations Protocol (2010), commonly referred to as LGOP, to identify and assess GHG emissions from local government activities. The County operations and community inventories for Mono County are consistent with the US Community Protocol and LGOP. While these protocols are not regulatory, they identify relevant sources or activities, recommend methods to estimate GHG emissions from each source, and provide consistency in the identification, assessment, and presentation of emissions results across multiple jurisdictions.

Effective Annual Population

Several data items used to estimate GHG emissions from energy use and transportation occurring in Mono County are only available at the countywide level (i.e., they include both unincorporated Mono County and the Town of Mammoth Lakes). While population and households are often appropriate metrics used to estimate emissions within a city or county, the influence of visitors and tourism on the local economy in Mono County dictates the need for a modified approach that considers how tourism affects energy use, travel patterns, and resulting GHG emissions.

To ensure countywide emissions sources and activities are appropriately assigned to the Town of Mammoth Lakes and to unincorporated Mono County, effective annual population metrics that account for both permanent residents and visitors have been identified for 2020 **(see Table 2)**. These metrics rely on 2019 US Census data for the year-round resident populations of the town and county, in addition to data from Mono County's Economic Impact Visitor Profile Study (2008), the State of California Department of Finance E-4 Population Estimates for Cities, Counties, and the State, and the Mammoth Community Water District's Urban Water Management Plan (2015 and 2020) to estimate annual visitors. This effective annual population metric has been applied to propane use, water use, and on-road transportation to assign countywide results to the unincorporated county.

The Town of Mammoth Lakes has already determined an effective annual population. The unincorporated County effective annual population uses countywide tourism for the effective population for all of Mono County, then subtracts the effective population of Mammoth Lakes.

Table 2: 2020 Residents, Visitors, and Effective Annual Population

		2020
Resident Population	Town of Mammoth Lakes	7,859
	Unincorporated County	5,596
	Mono County Total	13,455
	% in unincorporated	42%
Annual Visitor Days	Town of Mammoth Lakes	4,546,440
	Unincorporated County	1,740,407
	Mono County Total	6,286,847
	% in unincorporated	28%
Adjusted Visitor Population (annual visitor days divided by 365)	Town of Mammoth Lakes	12,456
	Unincorporated County	4,768
	Mono County Total	17,224
	% in unincorporated	38%
Effective Annual Population	Town of Mammoth Lakes	20,315
	Unincorporated County	**10,364**
	Mono County Total	30,679
	% in unincorporated	**34%**

Note: Numbers may not appear to total correctly due to rounding.

Baseline Resource Consumption and GHG Emissions

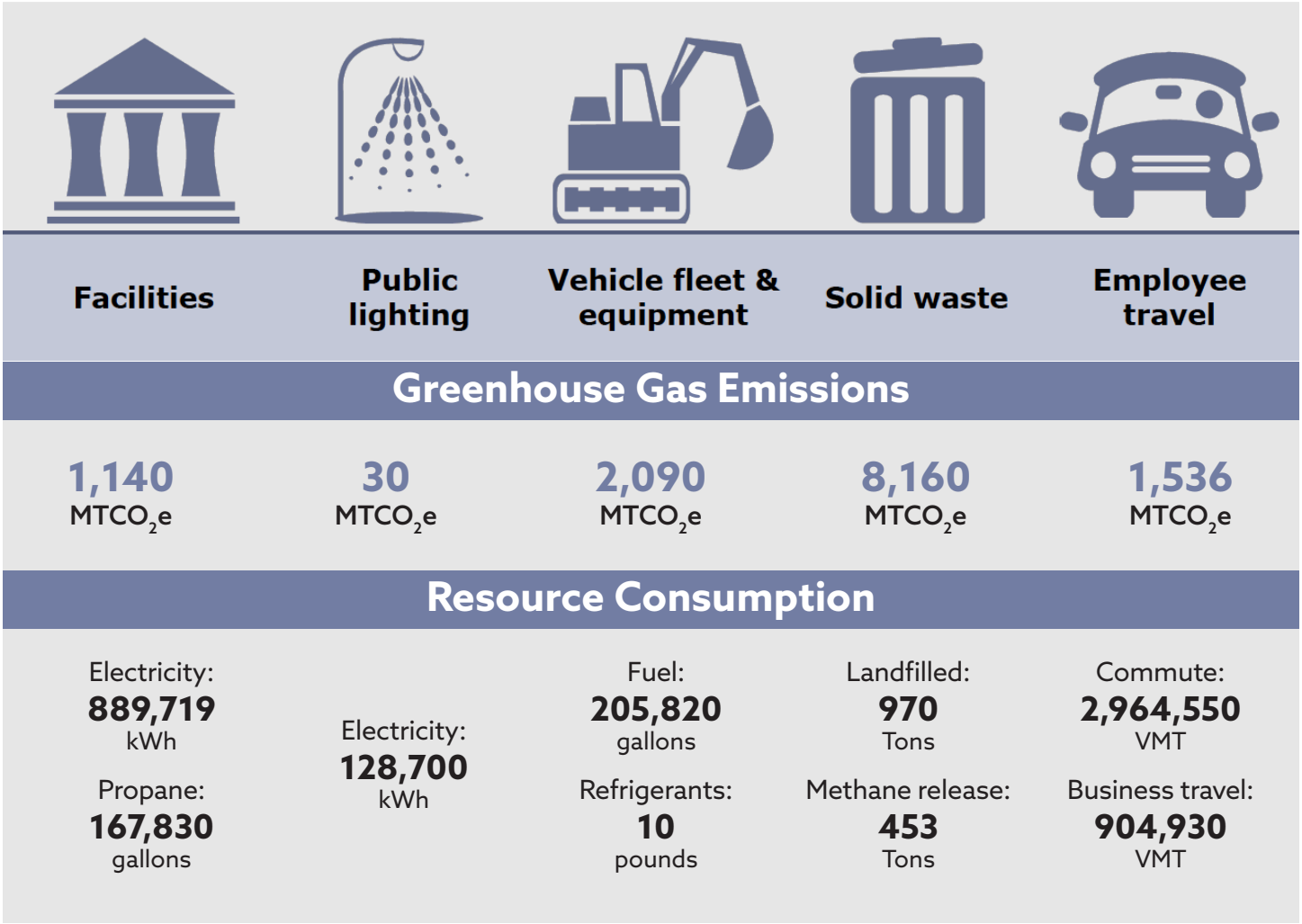
The following section describes the sources, methods, and results for calculating emissions from each activity analyzed in the County government operations and community inventories. This information and activity data also provide the technical foundation for assessing the effectiveness of future policies and programs at reducing both GHG emissions and the consumption of resources.

County Government Operations

Consistent with the LGOP, Mono County's government operation emissions inventory identifies the emissions from activities under the County's operational control. Activities included in the government operations inventory include facilities, public lighting, vehicle fleet and equipment, solid waste, and employee travel.

GHG emissions from Mono County government operations in 2019 totaled approximately 12,956 $MTCO_2e$. The total County emissions are broken down by emissions sector, as shown in **Figure 4**. The solid waste sector, including landfills operated by the County, represented the largest source of emissions, accounting for 8,160 $MTCO_2e$, or 63% of all County government operation emissions. This represents a 20% increase from 2010 levels. The second largest source of emissions was the County's vehicle fleet and equipment (2,090 $MTCO_2e$, 16% of emissions, an increase of 16% from 2010 levels), followed by emissions from employee travel (1,536 $MTCO_2e$, 12% of emissions, a 2% decrease from 2010 levels), and energy used at County facilities (1,140 $MTCO_2e$, 9% of emissions, a decrease of 19% from 2010). The remaining government operation emissions (30 $MTCO_2e$, less than 1%, and flat from 2010) were attributed to public lighting, which includes streetlights owned or maintained by the County.

Figure 4: 2019 Government Operation Emissions by Sector



Unincorporated Mono Community

Consistent with the US Community Protocol, Mono County's community inventory includes GHG emissions from the following activities that occur in the unincorporated county[4]: residential energy, nonresidential energy, transportation, off-road equipment, solid waste, water and wastewater, agriculture, and landfills.

Similar to most California communities, transportation (on-road vehicles) was the largest source of emissions at 268,290 $MTCO_2e$ in Mono County 2019 (75% of emissions, an increase of less than 1% from 2005 levels[5]), followed by residential energy use (29,240 $MTCO_2e$, 8% of emissions, an increase of less than 11.6% from 2010 levels), nonresidential energy use (23,690 $MTCO_2e$, 7% of emissions, a decrease of -22%), and agricultural activities (7,180 $MTCO_2e$, 2% of emissions, a decrease of 67%). The remaining community emissions (23,813 $MTCO_2e$, 7%, flat from 2010 levels) were attributed to landfills, off-road equipment, water and wastewater, and solid waste disposal activities. **Figure 5** summarizes the community inventory results.

Figure 5: 2019 Community Emissions by Sector

	GREENHOUSE GAS EMISSIONS	RESOURCE CONSUMPTION			
Residential Energy	**29,240** $MTCO_2e$	Electricity:	**24,269,650**	kWh
		Propane:	**1,235,290**	Gallons
		Wood:	**10,530**	Tons
Nonresidential Energy	**23,690** $MTCO_2e$	Electricity:	**15,663,630**	kWh
		Propane:	**3,573,030**	Gallons
Transportation	**268,290** $MTCO_2e$	Vehicle travel:	**468,464,570**	VMT
Off-road equipment	**10,030** $MTCO_2e$	Activity data not available.		
Solid waste	**4,540** $MTCO_2e$	Disposals:	**6,900**	Tons
Water and wastewater	**1,080** $MTCO_2e$	Electricity:	**699,160**	kWh
		Wastewater:	**1,171**	sewer connections
			2,200	septic tanks
Agriculture	**7,180** $MTCO_2e$	Domesticated animal production:	**32,000**	Heads
		Crop fertilization:	**5,520**	Acres
Landfills	**8,160** $MTCO_2e$	Landfilled[6]:	**8,163**	Tons

[4] Including activities by government agencies other than the County such as the US Forest Service, Bureau of Land Management, and the California Department of Transportation.

[5] There was an update to the 2019 VMT methodology, and 2005 VMT emissions were recalculated to reflect that update.

[6] Includes Alternative Daily Cover

Growth Indicators and Forecasts

An activity and emissions forecast estimates how emissions would grow over time if no action is taken at the federal, state, or local level to reduce them. A forecast has been prepared for Mono County's government operations and community activities, assuming that 2010 energy consumption, waste disposal, and vehicle travel rates on a per person or per effective population rate remain constant. These 2010 emissions rates are combined with applicable growth indicators to determine the anticipated increase in emissions. The following growth indicators are essential components to estimating how emissions in Mono County may increase over time.

County Government Growth Indicators

County government employee estimates identified by County staff are used to forecast most County government operations emissions for 2020, 2035 and 2050 **(see Table 3)**. While staffing levels declined between 2010 and 2015, the number of County employees returned to approximately 2010 levels in 2020. Beyond 2020, the number of County employees is estimated to grow at 0.33% annually to 343 employees by 2035 and 360 employees by 2050. This would result in a 10% net increase in the number of County employees between 2020 and 2050, which aligns with anticipated growth in the number of residents, employees, and visitors in Mono County over the same time frame.

Table 3: 2020, 2035 & 2050 County Government Employee Estimates

	2020	2035	2050
Mono County Employee Total	**325**	**343**	**360**

Source: Mono County 2022.

Emissions from County-operated landfills are forecast based on the amount of waste disposed at each landfill by the community (both unincorporated county areas and the Town of Mammoth Lakes). Therefore, emissions from these landfills are forecast using effective countywide population. Landfill emissions forecasts also assume that the Benton Crossing Landfill will no longer accept additional waste after 2023. However, the waste sector forecasts attempt to address how the County will manage waste disposal following closure of the Benton Crossing Landfill.

Community Growth Indicators

Community growth indicators were derived using a combination of sources, including the California Department of Finance (DOF), the US Census Bureau, CARB, California Department of Transportation (Caltrans), and California's Employment Development Department (EDD). **Table 4** identifies growth indicators and sources used to forecast community emissions.

Table 4: 2020, 2035 & 2050 Community Growth Indicators

Growth Indicator	2020	2035	2050	% Growth 2020–2035	Source
Resident Population	5,596	5,792	5,995	3.5%	DOF, EDD
Effective Annual Population	10,364	11,206	11,103	8.1%	DOF, EDD
Households	4,621	5,014	5,141	11.3%	DOF, US Census Bureau
Annual VMT (thousands)[1]	474,464,574	560,482,629[7]	541,586,304	12.3%	EMFAC

Note:
1. Annual VMT reflects adjustments made to the countywide annual VMT forecast prepared by CARB to account for effective annual population within the unincorporated area.

[7] 2040 projection; 2030 projection was unavailable.

Greenhouse Gas Emissions Forecasts

An emissions forecast estimates how emissions would grow over time if no actions were taken at the federal, state, or local level to reduce them. Emissions forecasts have been prepared for both Mono County's government operations and unincorporated community activities, assuming that energy consumption, waste disposal, and energy efficiency rates remain constant and considering the forecast indicators described above. The forecast addresses two years: 2035 and 2050. Both target years align with 2017 Climate Change Scoping Plan targets.

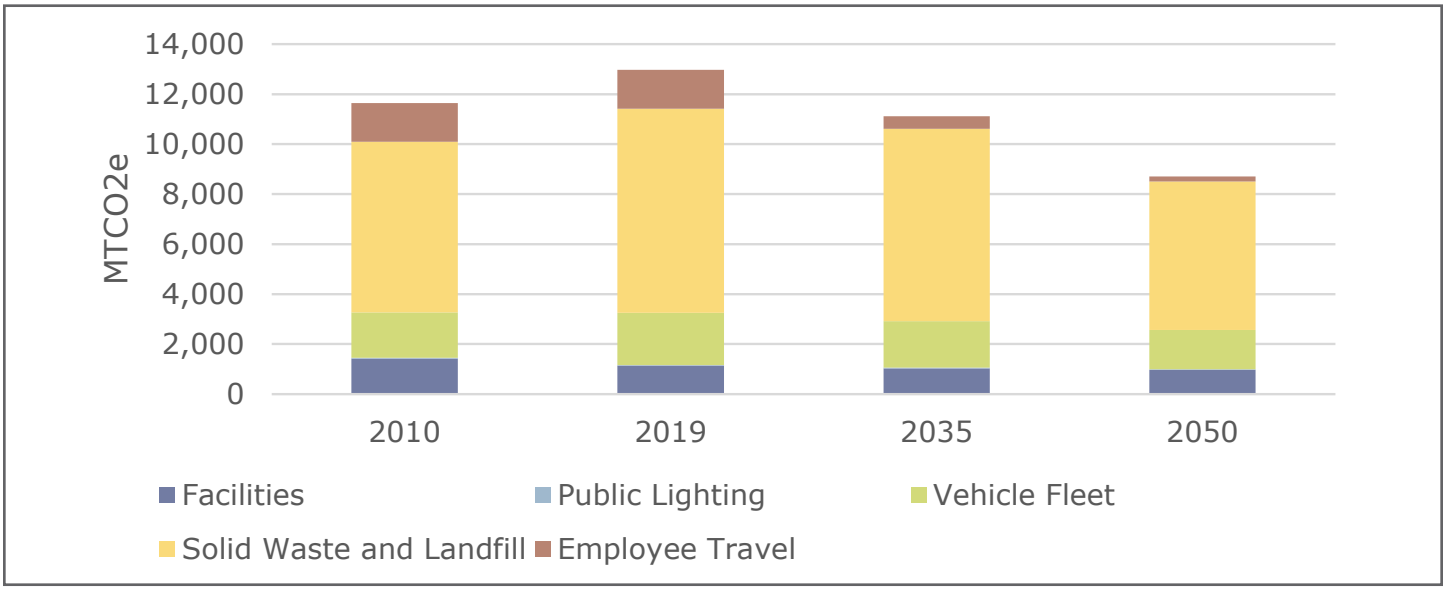
County Government Operations Forecast

The County government operations emissions forecast estimates how emissions would grow if County government resource consumption rates remain constant at baseline levels, but the number of employees and buildings increases to provide services and improved amenities to Mono County's growing number of visitors and residents.

As shown in **Figure 6**, County government operation emissions are estimated to decrease by 7.6% from 2019 levels by 2035 to 11,983 $MTCO_2e$, and by 26% from 2019 levels by 2050 to 9,533 $MTCO_2e$. Between 2019 and 2035 facilities emissions are forecasted to decrease by 9% to 1,030 $MTCO_2e$, Employee Travel is forecasted to decrease by 26% to 1,159 $MTCO_2e$, Vehicle Fleet emissions are forecasted to increase by 1% to 2,090 $MTCO_2e$, Solid Waste & Landfill emissions are forecasted to decrease by 6% to 7,679 $MTCO_2e$, and Public Lighting emissions are forecasted to decrease by 64% to 11 $MTCO_2e$, as renewable portfolio standards mean all electricity sources are being converted to renewable energy. Between 2019 and 2050 facilities emissions are forecasted to decrease by 15% to 960 $MTCO_2e$, Employee Travel is forecasted to decrease by 36% to 997 $MTCO_2e$, Vehicle Fleet emissions are forecasted to increase by 1% to 2,112 $MTCO_2e$, Solid Waste & Landfill emissions are forecasted to decrease by 27% to 5,931 $MTCO_2e$, and Public Lighting emissions are forecasted to decrease by 100% to 0 $MTCO_2e$, as renewable portfolio standards mean all electricity sources are renewable (by 2045). (Please see the Technical Appendix for a complete description of GHG calculations and methodology.)

The solid waste sector includes methane generation from landfills operated by the County, including the Benton Crossing Landfill, which is expected to close in 2023. The life cycle of a landfill has a methane generation profile similar to that of a bell curve in that it typically peaks within a year or two after a landfill closes and then gradually declines over time. As a result, annual emissions in Mono County's solid waste sector increase overall between 2010 and 2035, despite a decline between 2020 and 2035 due to closure of the landfill in 2023.

Figure 6: County Operations GHG Emissions by Category (2035 and 2050 are Forecasts)

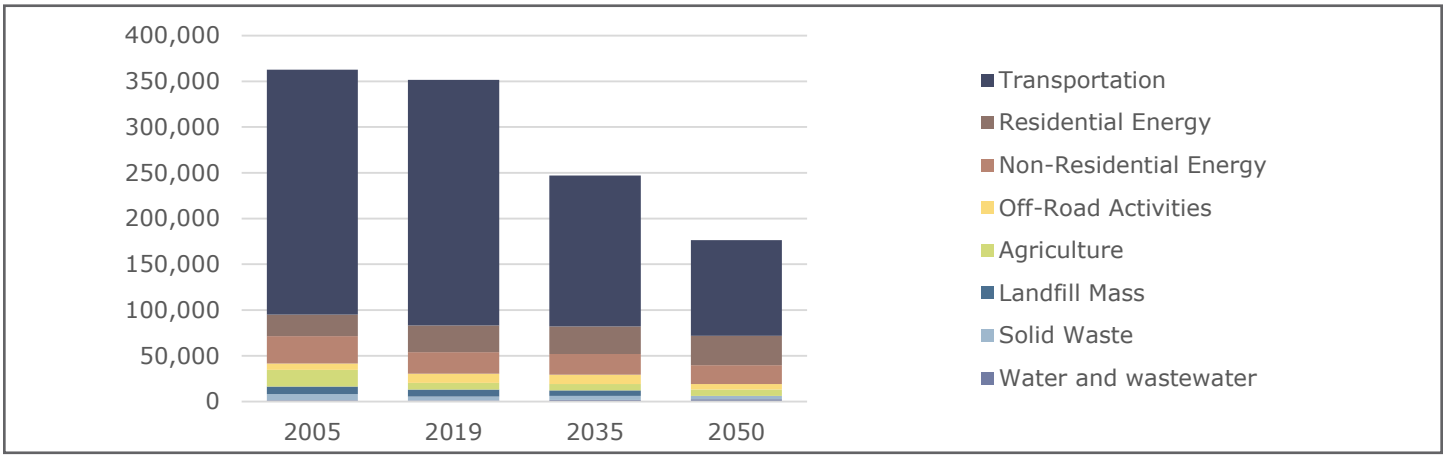


Community Emissions Forecast

The community emissions forecast estimates how emissions would change over time if the number of people, households, and jobs continues to grow modestly in unincorporated Mono County. The forecast also assumes that the rate of EV adoption leads to a 3% annual emission savings in the on-road transportation sector[7]. Community emissions are anticipated to decrease by 31% from 2005 levels by 2035, and by 50% from 2005 levels by 2050 **(see Figure 7).**

As can be seen in the Figure, emissions from residential and commercial energy are expected to rise by 10% and 2% respectively, from 2010 to 2050, in an adjusted BAU scenario. Residential energy use increases from 29,219 $MTCO_2e$ to 32,065 $MTCO_2e$, and commercial from 23,553 $MTCO_2e$ to 24,029 $MTCO_2e$. Emissions from transportation are expected to fall by 61% (from 268,290 $MTCO_2e$ to 104,395 $MTCO_2e$) during the same period. Emissions from off-road activities also fall from 10,030 $MTCO_2e$ to 6,062 $MTCO_2e$ (40%), while those from solid waste also decline from 4,540 $MTCO_2e$ to 3,432 $MTCO_2e$ (24%). Emissions from water and wastewater increase from 1,080 $MTCO_2e$ to 2,592, a 140% increase driven by septic system methane release. Agriculture remains flat, while the emissions from landfill mass decrease from 8,160 $MTCO_2e$ to 5,931 $MTCO_2e$ (27%). (Please see the Technical Appendix for a complete description of GHG calculations and methodology.)

Figure 7: Community GHG Emissions by Category (2010-2050 are Forecasts)



Resource Efficiency Targets

Most California cities and counties prepare climate action plans to achieve a minimum 15% reduction in GHG emissions from a 2005–2008 baseline year by 2020, as an equivalent to reducing GHG emissions to 1990 levels by 2020. This approach to setting a GHG reduction target relies on substantial evidence provided by SB 97 Final Statement of Reasons, the AB 32 Scoping Plan, and in some cases, thresholds established by an air quality management district as a basis to determine that GHG emissions from activities covered by the plan would not be cumulatively considerable. While the Scoping Plan identifies local governments as essential partners in achieving state GHG reduction goals and encourages them to consider reduction targets of at least 15%, there is currently no legislative requirement to set a specific fair-share GHG reduction goal, nor are penalties imposed for falling short of established goals.

Through this plan, Mono County is establishing a policy framework to locally fulfill the goals of AB 32 and will be responsible for leading implementation efforts, rather than requiring community members to address AB 32 solely through individual actions. As a CEQA lead agency, Mono County has the authority to identify cumulative thresholds supported by substantial evidence in a manner consistent with State CEQA Guidelines Section 15183.5(b). The REP is designed to fulfill and implement the GHG reduction goals of the AB 32 Scoping Plan at the local level as well as to support Scoping Plan objectives for the state as a whole. **Figure 8** identifies the County's near-term resource efficiency targets to be achieved through the implementation of this plan. Substantial evidence for these targets is provided through analysis completed to support the REP. (Please see the Technical Appendix for resource efficiency target calculations).

[8] ICLEI High Impact Action Vehicle Electrification webinar, slide 25 (Aug. 24, 2021). The Webinar offers a range of possible EV adoption rates, from 3% to 9%. An emission savings of 3% year over year, was adopted as a conservative approach based on current market trends.

Figure 8: 2030 & 2050 Resource Efficiency Targets

Greenhouse Gas Reduction

-40%

Local achievement of a 40% reduction from 1990 emissions levels by 2030 through local benefits of statewide emissions reduction policies and implementation of all feasible local GHG reduction measures.

-80%

Local achievement of a 80% reduction from 1990 emissions levels by 2050 through local benefits of statewide emissions reduction policies and implementation of all feasible local GHG reduction measures.

Renewable Energy Production

+38 MW

Implementation of two geothermal projects, Casa Diablo IV and Mammoth Pacific, will account for 38 MW of renewable energy in the unincorporated county, resulting in additional GHG emissions credits of 108,000 $MTCO_2e$ per year.

Greenhouse Gas Reduction Target

To support a comprehensive assessment of all potentially feasible policies and actions that could be implemented by the County, staff and consultants reviewed more than 500 potential actions from the California Air Pollution Control Officers Association's (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* guide, and the Institute for Local Government's *Sustainability Best Practices Framework* when developing the 2014 REP. The Board of Supervisors determined approximately 120 of these policies and actions to be feasible for Mono County in the near term. The REP relies on a balanced approach to reducing GHG emissions across all activity sectors and addressing both existing and new development. This update ensures the REP policies and actions represent the most technologically and economically feasible approach to reducing GHG emissions in Mono County. (Please see the Resource Efficiency Metrics section of this report for estimated emissions reductions, and the Technical Appendix for the calculation of GHG reduction targets).

Renewable Energy Production Target

Counties play an important role in supporting projects that have a larger statewide benefit and contribute to the achievement of statewide GHG reduction goals, though they may not directly reduce emissions within the jurisdiction's boundaries. Mono County has a long history of supporting, coordinating, and permitting renewable energy projects to support the electric generation needs of the Los Angeles Department of Water and Power, Southern California Edison, and private power generators. Examples include the recently approved Mammoth Pacific I Replacement and Casa Diablo IV Geothermal Development projects, which together will reduce emissions by 108,000 $MTCO_2e$ per year when completed. With the addition of the Casa Diablo IV plant, scheduled to come online at the beginning of 2022, the total generation for the complex will be 60 MW – enough to power 45,000 homes. The County's support and coordination of these renewable energy projects serves an important role in helping the state and energy service providers to meet Renewables Portfolio Standard goals.

3. RESOURCE EFFICIENCY MEASURES

This chapter describes the process for identifying, developing, and refining the measures needed to achieve the County's resource efficiency targets, as well as the methods used to evaluate the resource efficiency and GHG reduction benefits of each goal, policy, and action.

Process and Structure

Policy Development Process

Through the process of developing the 2014 REP, County staff reviewed more than 500 actions that are typically considered in sustainability and climate action plans for local jurisdictions. Of those, approximately 120 had been identified as relevant to the rural and mountainous nature of the county and considered politically, technically, and economically feasible to implement. The policies include implementing net-zero energy policies for County facilities, replacing and consolidating vehicles in the County fleet, and strategic opportunities to improve resource efficiency by residents, businesses, and visitors. These policies were adopted by the County and incorporated into the 2015 General Plan.

REP Policy Structure

The proposed REP policies are structured to become a part of the County's General Plan. Goals, objectives, policies, and actions are presented for use within the Conservation and Open Space (CO), Circulation (C), and Land Use (LU) Elements. To balance the level of detail and inputs needed to track implementation, emissions reductions estimates are presented at the policy level for 2020.

In addition to the policies proposed in the REP, to highlight the resource efficiency and GHG reduction efforts that have already been implemented or adopted by Mono County and California, the REP policy matrix presents the following actions and activities:

State Regulations – Key state programs and requirements that affect local emissions are credited toward the 2030 and 2050 emissions reduction targets. While these programs and requirements are enacted statewide, they affect vehicle emissions, the renewable energy content of electricity, and energy efficiency at the local level. Key state programs that affect local emissions in Mono County include the Pavley vehicle standards, Renewables Portfolio Standard (RPS), and Title 24 Energy Efficiency Standards. Considering the emissions forecast, state programs will reduce 2020 emissions in Mono County by an average of 8,444 MTCO2e/year from 2020 to 2050.

REP Policies – The REP policies are a diverse mix of incentives, education, and standards applicable to both new and existing development. The policies are designed to reduce emissions from each source to avoid relying on any one strategy or sector to achieve resource efficiency goals. Considering the emissions forecast, REP policies will reduce 2020 emissions in Mono County by 27,120 $MTCO_2e$.

Goals, Objectives, Policies, and Actions

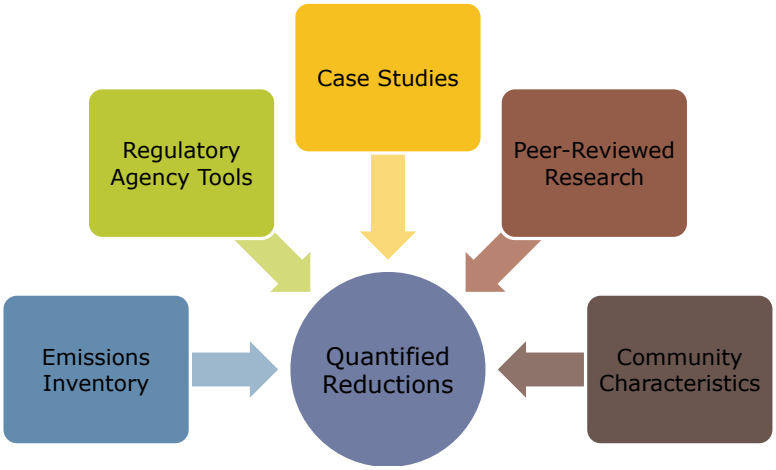
The goals, objectives, policies, and actions included in this REP can be implemented to further reduce emissions beyond state reductions and existing local actions. Using an initial feasibility analysis based on the geography, population density, and decision-making patterns present in Mono County, approximately 120 feasible actions were identified in the 2014 REP that the County could take to increase resource efficiency in community activities and County government operations. These actions were incorporated into the 2022 REP update. Most actions address improving energy efficiency in existing buildings, which corresponds to the largest sources of emissions in Mono County.

Quantification Methods

The emissions reduction benefit of each policy is determined by changes in operation, activity, or efficiency. Two types of reductions are considered: avoided emissions (e.g., walk instead of drive) and greater efficiency (e.g., drive an electric vehicle instead of a gasoline-powered model).

Figure 9 summarizes information used to estimate emissions reductions. The baseline inventory and 2050 forecast serve as the foundation for quantifying REP policies. Activity data from the inventory (e.g., vehicle miles traveled (VMT) and kilowatt hour (kWh) of electricity) are used with performance metrics to calculate the emissions reduction potential of each policy. This approach ensures that emissions reductions relate to activities in the community and County operations.

Figure 9: Emissions Quantification Sources and Tools



Resource Efficiency Metrics and Community Benefits

For each goal, a summary of the relevant resource efficiency metrics have been provided to highlight each goal's contribution toward reducing GHG emissions and resource consumption. The reduction values presented with each goal represent annual reductions that can be achieved through implementation of the associated goals, policies, and actions by 2030 and 2050. A detailed accounting of the GHG reduction estimates associated with each policy is provided in the work plan in **Chapter 4**.

Additionally, implementation of REP goals provides indirect benefits to the Mono County community through achievement of the following program objectives of California's SGC:

- Improve air and water quality
- Protect natural resources and agricultural lands
- Promote public health
- Reduce automobile usage and fuel consumption
- Promote equity
- Improve infrastructure systems
- Increase housing affordability
- Promote water conservation
- Increase infill and compact development
- Promote energy efficiency and conservation
- Revitalize urban and community centers
- Strengthen the economy

The contribution toward reducing GHG emissions, resource consumption, and achieving SGC program goals are highlighted for each goal, next to the goal introduction, and summarized at the end of this chapter.

Advancing equity is a key priority of the SGC. The Affordable Housing and Sustainable Communities program administered by the SGC prioritizes grant funding to support resource efficiency throughout California, particularly among lower-income residents. As of 2022, the 1,424-acre Ullman Ranch has been conserved via an agricultural conservation easement through a partnership between Sustainable Agricultural Lands Conservation (SALC) and the United States Department of Agriculture's Natural Resource Conservation Service Agricultural Conservation Easement Program. The ranch is located west of Bridgeport and is being conserved for water, wildlife, and sustainable cattle ranching.

There is wide income disparity in unincorporated Mono County; according to the most recent US Census data, approximately 19% of households earn less than $35,000 a year, while approximately 22% of households earn over $100,000 annually. REP goals, policies, and actions are intended to allow all Mono County community members, regardless of income, occupation, age, or other factors, to equally benefit from resource efficiency. Several REP actions are specifically focused toward lower-income individuals, including weatherization assistance, improving availability of produce from local farms, and supporting development of lower-cost transportation.

GOAL CO.1. IMPROVE ENERGY EFFICIENCY IN EXISTING BUILDINGS.

Resource Efficiency Metrics

GHG:	-10,500 $MTCO_2e/yr$
Electricity:	-6,942,920 kWh/yr
Propane:	-175,590 gallons/yr
Wood:	-4,310 tons/yr

Community Benefits

- ✓ Improve air and water quality
- Promote public health
- ✓ Promote equity
- ✓ Increase housing affordability
- ✓ Improve infrastructure systems
- ✓ Promote water conservation
- ✓ Promote energy efficiency and conservation
- ✓ Strengthen the economy

Much of the energy use within buildings in future years will occur in buildings constructed prior to the development of the REP, as many of the current buildings in Mono County will still be occupied in 2035, and the County is not expecting a substantial amount of new construction. Older buildings often lack the energy-efficient features found in newer structures. Policies and actions supporting Goal CO.1 seek to reduce the energy used by older buildings in Mono County, including educational events and small-scale improvements (such as energy-efficient light bulbs), replacement of home appliances (such as pumps and stoves), and whole-building retrofits. These actions address both residential and nonresidential buildings, including rented and leased buildings, and County-owned facilities. Additionally, these actions include monetary incentives and potential financing options, helping to make the upfront cost of energy efficiency more affordable.

These actions decrease energy use in existing buildings, including electricity and heating fuels such as wood and propane. These actions save building owners and tenants money on their utility bills and can make buildings more comfortable places to live and work. By reducing electricity and fuel use, these actions will help reduce some of the largest sources of GHG emissions in Mono County. Reductions in fuel use can also improve air quality in the county, providing health benefits for residents and visitors.

Objective CO.1.A. Improve the information and support available to residential and nonresidential property owners to reduce energy use.

Policy CO.1.A.i. Work with nonprofits and utility providers to provide property owners with technical assistance, energy efficiency programs, and financial incentives.

Action CO.1.A.i.a. Support and publicize compact fluorescent (CFL) or light-emitting diode (LED) giveaways, and incandescent bulb exchange programs.

Action CO.1.A.i.b. Work with utility providers to encourage home/commercial audits and energy efficiency retrofits.

Action CO.1.A.i.c. Support or host events that highlight and promote successful programs.

Action CO.1.A.i.d. Promote and reward energy efficiency efforts of local visitor-serving and recreational businesses.

Policy CO.1.A.ii. Provide green building information and resources in a publicly available format, such as a dedicated page on the County website.

Action CO.1.A.ii.a. Provide green building information and resources.

Action CO.1.A.ii.b. Provide information about programs, rebates such as the California Solar Initiative, on-bill financing, or other financial incentives to help residents and businesses complete energy-saving measures such as audits and whole-house retrofits.

Action CO.1.A.ii.c. Provide information on low-income assistance programs, such as weatherization.

Action CO.1.A.ii.d. Provide information to local businesses about resource-efficient procurement opportunities.

Objective CO.1.B. Increase the number of programs available and accessibility to capital to assist residential and nonresidential properties with implementation of resource-efficient practices.

Policy CO.1.B.i. Provide programs and information to reduce existing energy use.

Action CO.1.B.i.a. Offer a property assessed clean energy (PACE) financing program for residential and nonresidential energy efficiency.

Action CO.1.B.i.b. Work with the Great Basin Unified Air Pollution Control District to provide incentives to replace older woodstoves with Environmental Protection Agency-certified pellet stove or propane units.

Policy CO.1.B.ii. Encourage energy-efficient measures and practices through standard County programs, such as well and building permits.

Action CO.1.B.ii.a. Promote installation of variable frequency drive water pumps to serve existing residential buildings.

Action CO.1.B.ii.b. Encourage voluntary upgrades of residential and nonresidential HVAC systems.

Action CO.1.B.ii.c. Encourage energy audits and voluntary retrofits for residential and nonresidential buildings at the time of sale or major renovation (>50% of building square footage, or addition of >500 square feet).

Policy CO.1.B.iii. Provide incentives and information to support upgrades to rental properties, non-primary housing, and other types of housing.

Action CO.1.B.iii.a. Promote opportunities to improve energy efficiency and install renewable energy systems in rental or secondary homes.

Action CO.1.B.iii.b. Provide information on programs such as upgrades to mobile homes, blow-in insulation, and double-paned glazed low-e windows.

Objective CO.1.C. Reduce energy use in existing County facilities.

Policy CO.1.C.i. Continue progress toward net zero energy use in County facilities.

Action CO.1.C.i.a. Seek funding for and then develop a net zero energy feasibility study for County facilities that would include renewable energy generation, whole-building energy audits, construction costs and return on investment horizons, and potential time frames.

Action CO.1.C.i.b. Consider installing cool roof materials on existing and new County-owned buildings.

Action CO.1.C.i.c. Replace appliances and equipment in County-owned and leased buildings with energy-efficient models.

Action CO.1.C.i.d. Develop and implement a schedule—for example, through whole-building energy audits—to address no cost/low cost energy retrofit projects in County-owned and -leased buildings.

Action CO.1.C.i.e. Reduce energy demand in County-owned buildings by capturing "daylighting" opportunities.

Action CO.1.C.i.f. Collaborate with owners of leased buildings to audit and benchmark energy use, retrofit for efficiency, and develop a preferred leasing agreement that incorporates energy-efficient practices.

Policy CO.1.C.ii. Continue to manage maintenance and ongoing programs that support energy reduction.

Action CO.1.C.ii.a. Periodically audit and benchmark energy use in County-owned buildings to identify opportunities for energy efficiency and conservation.

Action CO.1.C.ii.b. Ensure that HVAC and lighting systems in County-owned and -leased buildings are operating as designed and installed.

Action CO.1.C.ii.c. Continue to use energy management software to monitor real-time energy use in County-owned and -leased buildings to identify energy usage patterns and abnormalities.

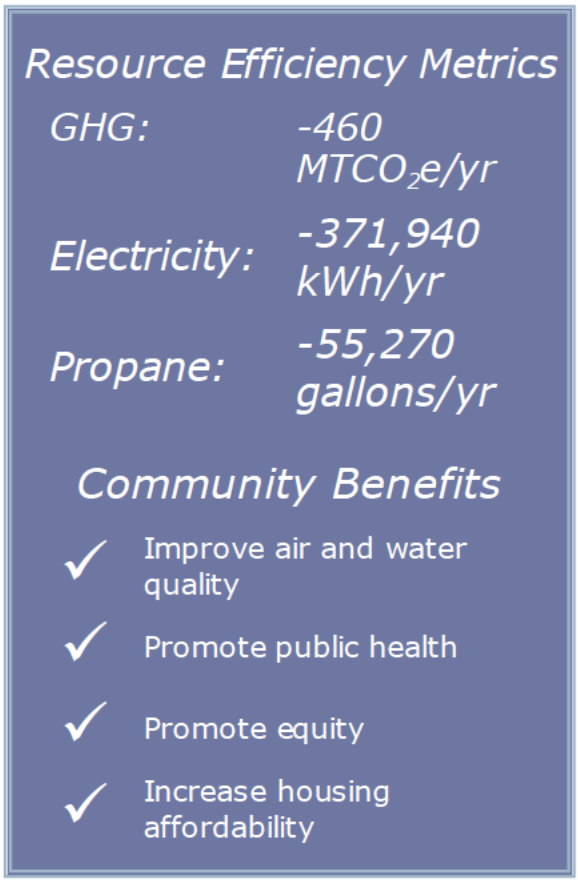
Action CO.1.C.ii.d. Install motion sensors, photocells, and multi-level switches to control room lighting systems in County-owned and -leased buildings.

Action CO.1.C.ii.e. Encourage utility providers to install smart meters on County-owned buildings.

GOAL CO.2. REDUCE ENERGY USE IN NEW CONSTRUCTION AND MAJOR RENOVATIONS.

Although new construction in Mono County is expected to be limited and the California Building Standards Code contains many items to improve the energy efficiency of newer buildings, Mono County has an opportunity to show leadership in green building by supporting practices that go beyond state standards. Policies and actions supporting Goal CO.2 will improve energy efficiency in new construction and major renovations through voluntary actions and incentives. These include providing educational materials about the benefits of exceeding California's green building standards, incentivizing key green building practices, and collaborating with utility companies, residents, and building industry professionals to offer training and technical assistance. These actions also promote green building in County facilities.

The actions will reduce energy use in new and retrofitted buildings beyond the standards of the California Building Standards Code, decreasing electricity and propane bills for owners and tenants. By reducing the amount of fuel burned to generate electricity or heat homes, these actions help reduce Mono County's GHG emissions, and can improve local and regional air quality.



Objective CO.2.A. Increase green building practices in new construction and major renovations.

Policy CO.2.A.i. Support and promote residential and nonresidential green building construction.

Action CO.2.A.i.a. Offer incentives (e.g., streamlined permitting, prescriptive designs, fee waivers/reductions) for green building practices, such as verifiable green building practices that exceed state or local minimum standards, ground-source heat pumps, or photovoltaic solar installations.

Action CO.2.A.i.b. Work with utility providers to provide information to businesses about available rebates for new residential and commercial buildings that exceed Title 24 by at least 15%.

Action CO.2.A.i.c. Offer technical expertise and assistance for community members, builders, and businesses undertaking green building projects.

Action CO.2.A.i.d. Provide information on how contractors can attend energy efficiency training.

Policy CO.2.A.ii. Continue to transition to green building practices in new County facilities.

Action CO.2.A.ii.a. Consider certification by a third-party rater to ensure all new County facilities and renovations of existing facilities comply with green building standards.

Action CO.2.A.ii.b. Target meeting net-zero energy requirements or exceeding minimum Title 24 requirements for new County buildings and renovation of existing facilities.

GOAL CO.3. PRESERVE OPEN SPACE AND AGRICULTURE TO SEQUESTER CARBON AND PROMOTE LOCAL FOOD PRODUCTION.

Mono County residents and visitors to the area are fortunate to enjoy a spectacular natural setting. The County's open spaces provide extensive recreational opportunities and make Mono County a destination for visitors from around the world, while the County's gardens and agricultural land supply food grown and raised locally. Goal CO.3 manages and preserves these vital lands to reduce resource use and contribute to the County's GHG reduction efforts. Policies and actions supporting Goal CO.3 include providing incentives to preserve agricultural land and open space, support economically viable agricultural practices that reduce environmental impacts, and exploring options to allow farmers and ranchers to use their land to sequester carbon without disrupting normal agricultural activities. They also include steps to provide economic support for local farmers and ranchers, including helping to make locally grown and raised food more widely available, and buying locally supplied food for County events when feasible.

Many of these actions are considered supportive, meaning that their resource efficiency and GHG benefits cannot be definitively identified. However, these actions help to preserve and expand Mono County's agricultural and open space land, providing scenic benefits and contributing to the local economy. By providing farmers with best practices on fertilizer and pesticide use, Mono County can help save farmers money, reduce health risks, and decrease GHG emissions from agricultural activities. The possibility of using agricultural land to sequester carbon may provide additional financial benefits to farmers and ranchers.

Objective CO.3.A. Improve the health and resilience of the natural and agricultural landscape.

Policy CO.3.A.i. Maintain open space and manage open space from fire and erosion.

Action CO.3.A.i.a. Proactively manage the County's current parks, open space, recreational facilities, and other natural areas owned or operated by the County to ensure the long-term health and viability of trees and other vegetation.

Action CO.3.A.i.b. Evaluate future opportunities to convert closed landfills to parks or open space.

Policy CO.3.A.ii. Encourage other programs that protect natural areas.

Action CO.3.A.ii.a. Promote biomass heat/energy utilization projects meeting environmental standards as a means to incentivize fuel reduction projects for healthy forests by creating an economic market for woody biomass.

Policy CO.3.A.iii. Support optimal agricultural practices.

Action CO.3.A.iii.a. To the extent feasible, purchase locally grown food for County events and purposes.

Action CO.3.A.iii.b. Encourage community gardens and farmers markets to support the availability of healthy, locally grown produce.

Action CO.3.A.iii.c. Promote conservation tillage and other agricultural practices to retain carbon fixed in soils.

Action CO.3.A.iii.d. Provide financial or other incentives for low-income residents to purchase fresh produce at farmers markets.

Action CO.3.A.iii.e. Offer incentives (e.g., development credits, support for the Williamson Act) to promote the preservation of farmland, open space, and sensitive lands.

Action CO.3.A.iii.f. Support the Great Basin Unified Air Pollution Control Districts standards for the burning of agricultural residue.

Action CO.3.A.iii.g. Encourage best practices in fertilizer and pesticide use.

Action CO.3.A.iii.h. Research carbon sequestration programs on agricultural lands.

GOAL CO.4. ENCOURAGE APPROPRIATELY SCALED RENEWABLE ENERGY GENERATION FOR USE WITHIN THE COUNTY.

Goal CO.4 supports increased individual and community-scale renewable facilities in Mono County in a manner consistent with the County's values and visual setting. Policies and actions support solar photovoltaic systems on new and existing buildings, educational opportunities regarding the benefits of renewable energy systems, and support for community-scale renewable energy plants that are environmentally responsible and financially feasible. This measure does not support industrial or utility-scale solar installations that are incompatible with Mono County's rural character. To help decrease the costs of renewable energy systems, the County proposes incentives and unique financing opportunities for renewable energy development.

Renewable energy systems reduce the amount of fossil fuels burned to create energy, decreasing GHG emissions and improving air quality. Renewable energy systems attached to buildings, such as solar panels on a building roof, reduce the amount of energy that needs to be purchased from utility companies, and allow building occupants to sell electricity back to the utility company (a process called net metering), which can reduce energy bills. Community-scale facilities contribute to California's overall renewable energy goals.

Objective CO.4.A. *Increase renewable energy generation that is consistent with the county's visual and aesthetic qualities and values.*

Policy CO.4.A.i. Support and incentivize residential and nonresidential distributed renewable energy generation.

Action CO.4.A.i.a. Pursue installation of solar photovoltaic systems, power purchase agreements, or solar collective programs to meet all or part of the electrical energy requirements of County-owned or -leased buildings.

Action CO.4.A.i.b. Offer incentives (e.g., streamlined permitting, prescriptive designs, fee waivers/ reductions) to encourage installation of photovoltaic systems on new or existing buildings.

Action CO.4.A.i.c. Offer workshops and information for residents and businesses to provide resources and permitting assistance for those interested in adding renewable energy systems to their properties.

Policy CO.4.A.ii. Encourage community-scale (<3 MW) renewable energy development on suitable lands, such as a biomass co-generation facility.

Action CO.4.A.ii.a. Support the development of appropriately sited community-scale renewable energy systems that meet critical evaluation criteria, such as environmental standards, sensitive species, financial feasibility, and transmission capacity.

Action CO.4.A.ii.b. Work with utility providers, regulatory agencies, and local stakeholders to develop technical, environmental, and social feasibility.

GOAL CO.5. REDUCE GENERATION OF WASTE WITHIN THE COUNTY.

Resource Efficiency Metrics

GHG: -3,730 $MTCO_2e/yr$

Waste: -2,700 tons/yr

Community Benefits

- ✓ Promote public health
- ✓ Promote equity
- ✓ Protect natural resources and agricultural lands
- ✓ Improve infrastructure systems
- ✓ Strengthen the economy

Material thrown away in a trash can in Mono County ends up in a landfill operated by the County government, taking up space and decomposing to produce methane, a potent GHG. Goal CO.5 reduces the amount of waste that ends up in a landfill by promoting recycling and composting, and reducing the amount of waste produced by County residents, businesses, and visitors. Policies and actions supporting Goal CO.5 include finding opportunities to collect and recycle waste that cannot be easily disposed of (for example, electronic waste), supporting the expansion of recycling programs, and identifying the need for new programs and facilities. They also promote steps by the County government to lead by example, including providing County staff with information about waste reduction, recommending actions to decrease paper waste, and exploring the feasibility of upgrading County waste management facilities.

Waste reduction actions decrease the amount of material that ends up in a landfill, thereby reducing the GHGs produced in waste decomposition. They also help to conserve landfill space, decreasing the need for the County to dedicate additional space or develop potentially costly alternatives. These actions can save money as well; for example, efforts to reduce the amount of paper used in County government operations decreases the amount of money the County needs to spend to buy new paper.

Objective CO.5.A. Reduce waste deposited in the county's landfills.

Policy CO.5.A.i. Increase composting and recycling programs, and reduce waste generation, throughout the county.

Action CO.5.A.i.a. Identify and encourage reducing, reusing, and recycling opportunities for construction and demolition waste.

Action CO.5.A.i.b. Establish a program to use the maximum amount of organic waste possible generated within the county to produce compost for use in parks and landscaping.

Action CO.5.A.i.c. Increase opportunities for e-waste and hazardous materials collection and recycling.

Action CO.5.A.i.d. Evaluate current recycling infrastructure relative to future needs and anticipated waste generation. Provide incentives for new recycling infrastructure facilities in the county.

Action CO.5.A.i.e. Encourage the installation of recycling receptacles and containers at multi-family housing developments.

Action CO.5.A.i.f. Explore measures to reduce waste from commercial operations, such as banning single-use bags and polystyrene containers.

Policy CO.5.A.ii. Promote a standard of reduce, reuse, and recycle within County government operations.

Action CO.5.A.ii.a. Provide County staff with information on recycling items such as ink cartridges, toner, batteries, and light bulbs.

Action CO.5.A.ii.b. Encourage paper use reduction through activities such as:

- Promoting a "think before you print" campaign.
- Reducing margins and logos on County templates, letterhead, and memos.
- Setting printer default options to print double-sided pages.
- Using computer software that removes blank pages and images from documents.
- Using "e-copy" machines that allow users to scan and distribute documents via e-mail.
- Uploading bid documents using online resources.
- Requiring fewer or smaller-sized copies of project plans or submittals, and allowing digital submittals.
- Using electronic devices for agendas and notes at public meetings.

Action CO.5.A.ii.c. Review and implement the adopted procurement policy to establish purchasing standards for climate-friendly products.

Policy CO.5.A.iii. Partner with other agencies, such as the Town of Mammoth Lakes, on green procurement, waste reduction, and recycling activities.

Objective CO.5.B. Reduce greenhouse gas emissions from County solid waste operations.

Policy CO.5.B.i. Reduce or off-set methane generation from county landfills.

Action CO.5.B.i.a. Investigate new technologies available to capture methane at county landfills.

Action CO.5.B.i.b. Identify opportunities to install renewable energy systems at county landfills.

GOAL CO.6. ENSURE A SUSTAINABLE LONG-TERM SUPPLY OF WATER, AND MEET OR EXCEED APPLICABLE WATER QUALITY STANDARDS.

2022 was the driest year in the last 128 years, and as of March 2022 100% of Mono County residents were affected by drought[8]. In the relatively dry environment that comprises much of Mono County and the state, there is a critical need to maintain an adequate supply of safe, clean water. Goal CO.6 seeks to meet this need through a number of water conservation and water quality actions. Policies and actions supporting Goal CO.6 include encouraging new buildings to exceed the water efficiency standards in the California Building Standards Code, promoting development solutions and practices that preserve water quality, encouraging water efficiency retrofits in existing homes and businesses, and promoting more efficient wastewater treatment.

These water conservation actions directly preserve a vital resource for all residents, business owners, and visitors. Reductions in water use result in less energy use to treat and supply water, reducing utility bills and decreasing Mono County's GHG emissions. Goal CO.6 also improves wastewater treatment efficiency, achieving further reductions in energy use and "direct" emissions caused by the decomposition of materials in wastewater.

Resource Efficiency Metrics

GHG:	-660 $MTCO_2e/yr$
Electricity:	-45,430 kWh/yr
Water:	-100 million gallons/yr

Community Benefits

- ✓ Improve air and water quality
- ✓ Promote public health
- ✓ Increase housing affordability
- ✓ Protect natural resources and agricultural lands
- ✓ Improve infrastructure systems
- ✓ Promote water conservation
- ✓ Promote energy efficiency and conservation

Objective CO.6.A. ***Protect and conserve water resources throughout communities.***

Policy CO.6.A.i. Encourage reduced water consumption in residential and nonresidential properties.

Action CO.6.A.i.a. Encourage and promote the installation of residential greywater systems on existing residential and commercial properties that meet appropriate regulatory standards.

Action CO.6.A.i.b. Encourage installation of water conservation measures in existing homes and businesses.

Action CO.6.A.i.c. Encourage new residential and commercial construction and new County facilities to exceed CALGreen water conservation requirements.

Action CO.6.A.i.d. Encourage prospective homebuyers to conduct water efficiency audits at point of sale for commercial and residential properties.

Action CO.6.A.i.e. Assess, maintain, repair, and program existing irrigation systems to minimize water use, including parking lot landscaping, public restrooms and parks, and recreational facilities.

[8] NOAA Drought.gov website, retreived 3/28/22 https://www.drought.gov/states/california/county/mono

Action CO.6.A.i.f. Ensure applicable projects comply with the Water Efficient Landscape Ordinance.

Policy CO.6.A.ii. Protect water quality throughout communities.

Action CO.6.A.ii.a. Promote low-impact development solutions (see General Plan Appendix B) for stormwater management on private property, such as rain gardens, green roofs, and detention ponds.

Action CO.6.A.ii.b. Use non-toxic fertilizers in county parks and landscaped areas to reduce potential water quality issues through stormwater runoff.

Action CO.6.A.ii.c. Maintain drainage systems associated with roads and public infrastructure for stormwater management.

Objective CO.6.B. Promote sustainable alternatives to reduce and treat wastewater.

Policy CO.6.B.i. Promote energy-efficient wastewater treatment and biosolids recycling practices.

Action CO.6.B.i.a. Work with wastewater service providers to implement an audit, cycling, and equipment replacement program to increase energy efficiency for water and wastewater pumps and motors.

Action CO.6.B.i.b. Where feasible, replace septic systems with community package treatment systems.

GOAL CO.7. COLLABORATE WITH COMMUNITY PARTNERS, AND EMPOWER THE PUBLIC TO IMPROVE RESOURCE EFFICIENCY WITHIN THE COUNTY.

Resource efficiency policies have a much better chance of success when there is extensive support from community members, and when implementing agencies such as the County government partner with other local and regional organizations. While the policies and actions supporting Goal CO.7 do not result in direct or measurable GHG reduction or resource efficiency metrics, they do encourage collaboration and cooperation among community members and organizations in order to meet numerous County resource objectives. They include efforts to educate community members about resource efficiency and sustainability, opportunities to create events for community leaders to discuss resource conservation, and ways that Mono County can promote resource efficiency and sustainability goals beyond the County boundaries.

These supportive actions contribute to the success of all other resource efficiency goals by improving the visibility of and building support for resource conservation and sustainability. Indirectly, these actions help to achieve the benefits of other resource efficiency goals, including reduced energy use, improved air quality, financial savings, and resource conservation.

Objective CO.7.A. Leverage resources regionally to build capacity for resource efficiency programs.

Policy CO.7.A.i. Work with local schools to support educational opportunities that promote resource efficiency.

Action CO.7.A.i.a. Collaborate with high schools to provide students with resource-based internship opportunities.

Action CO.7.A.i.b. Partner with local community colleges and grade schools to develop classes or workshops with a resource focus.

Policy CO.7.A.ii. Collaborate with local, state, and regional agencies and organizations to identify resource conservation opportunities and share information.

Action CO.7.A.ii.a. Integrate energy conservation discussions and opportunities into projects or efforts with other federal, state, and regional agencies.

Action CO.7.A.ii.b. Utilize the Regional Planning Advisory Committees to create ongoing opportunities for community members to provide feedback on resource policies and programs.

Action CO.7.A.ii.c. Promote the Mono County "Living Light Guide" that outlines steps residents and businesses can take to reduce energy and water use, recycle, and use alternative transportation.

Action CO.7.A.ii.d. Include information in County mailings, websites, and other media about actions that individuals and businesses can take to improve resource efficiency.

Action CO.7.A.ii.e. Participate in the CoolCalifornia Challenge which challenges local agencies to engage residents in taking action to reduce household energy use and vehicle miles traveled.

Policy CO.7.A.iii. Support and participate in the outreach, education, and collaboration efforts of the Eastern Sierra Energy Initiative partnership.

Action CO.7.A.iii.a. Distribute giveaway items, such as reusable bags and compact fluorescent (CFL) light bulbs, to encourage environmental responsibility.

Action CO.7.A.iii.b. Develop public service announcements and/or talk shows related to resource efficiency.

Action CO.7.A.iii.c. Use social media to inform the community about resource efficiency activities and opportunities.

Action CO.7.A.iii.d. Host a leadership summit for community leaders, school groups, and businesses to gather and share resource conservation experiences, expertise, strategies, and ideas.

Action CO.7.A.iii.e. Provide recognition programs for individuals, groups, and businesses that adopt resource efficiency practices.

GOAL C.1. IMPROVE CONNECTIVITY AND EFFICIENCY OF RESIDENT AND EMPLOYEE TRANSPORTATION WITHIN THE COUNTY.

On-road vehicles are the single largest source of GHG emissions in Mono County and the rural, spread-out nature of the county presents a challenge to residents, employees, and visitors alike to use alternative means of transportation. However, a number of opportunities to improve transportation within the county exist, some of which are addressed by the policies and actions supporting Goal C.1. These actions recognize the diverse reasons people have for traveling within Mono County and seek to provide a number of options to get around that are safe, convenient, and affordable. The actions include improvements to bicycle networks, support for rideshare and shuttle systems for large tourist-serving employers and uses, and working with local transit providers to improve transit service. Strategies to improve transportation efficiency and promote the use of alternative fuels in County government operations are also promoted. Alternative vehicle fuels such as electricity, compressed natural gas, and emerging and future technologies are all supported by the policies and actions of Goal C.1.

By providing alternatives to travel in single-occupancy vehicles, these actions reduce vehicle fuel use in Mono County, decreasing the amount of GHGs and air pollution produced by cars and trucks and creating financial savings for residents and employees who may not need to fill up their vehicle fuel tanks as frequently. Some actions encourage people to walk or use bicycles, providing health benefits to community members and visitors and supporting recreational tourism that benefits the local economy.

Resource Efficiency Metrics

GHG:	*-3,720 $MTCO_2e/yr$*
Fuel:	*-45,340 gallons/yr*
Vehicle Mileage:	*-6,066,610 VMT/yr*

Community Benefits

- ✓ Improve air and water quality
- ✓ Promote public health
- ✓ Promote equity
- ✓ Increase infill and compact development
- ✓ Revitalize urban and community centers
- ✓ Reduce automobile usage and fuel consumption
- ✓ Improve infrastructure systems

Objective C.1.A. Expand resident and visitor transportation options.

Policy C.1.A.i. Provide for viable alternatives to travel in single-occupancy vehicles.

Action C.1.A.i.a. Work with major employers to offer voluntary incentives and services that increase the use of alternative forms of transportation, particularly tourism-based employers and uses.

Action C.1.A.i.b. Provide bicycle access to transit services along transit corridors and other routes that may attract bicyclists, such as routes providing access to visitor-serving locations.

Action C.1.A.i.c. Develop a ridesharing program that utilizes a website and/or mobile technology to connect potential carpoolers.

Action C.1.A.i.d. Adopt a countywide bicycle master plan to guide bikeway policies and implement development standards to make bicycling safer, more convenient, and enjoyable.

Action C.1.A.i.e. Identify opportunities to offer bicycle-sharing programs within communities.

Action C.1.A.i.f. Encourage the installation of bicycle rack, showers, and/or other amenities as part of new commercial development projects to promote bicycle use by employees and residents.

Policy C.1.A.ii. Improve efficiency of County fleet operations.

Action C.1.A.ii.a. Set fleet efficiency standards for new agency vehicles that can meet climate conditions and needs while reducing fuel use. Consider purchasing fuel-efficient or alternative-fuel vehicles, including zero or near-zero emission vehicles.

Action C.1.A.ii.b. Utilize technology options (e.g., digital service requests accessible by mobile devices) for field personnel to avoid extra trips back to the office.

Action C.1.A.ii.c. Install battery systems for vehicles with onboard equipment to decrease truck idling while equipment is used.

Action C.1.A.ii.d. When alternative-fuel infrastructure (such as electric vehicle charging stations) is installed for County government use, ensure public access and use is considered in the design and operation of such facilities.

Action C.1.A.ii.e. Perform appropriate vehicle maintenance or retrofits to ensure maximum cold weather performance.

Action C.1.A.ii.f. Maintain County off-road vehicles to reduce fuel use and idling time.

Action C.1.A.ii.g. Implement the County's on- and off-road equipment replacement plan to comply with the California Air Resource Board's heavy-duty vehicle Tier 4 requirements, to simultaneously reduce fuel use in the County fleet.

Action C.1.A.ii.h. Provide incentives to improve maintenance of agricultural vehicles and equipment to reduce fuel use.

Policy C.1.A.iii. Reduce vehicle miles traveled from employee commutes and County operations.

Action C.1.A.iii.a. Implement a flexible work schedule for County employees incorporating telecommuting, videoconferencing, and modified schedules, including remote attendance at meetings.

Action C.1.A.iii.b. Offer County employees incentives to use alternatives to single-occupant commuting, such as flexible schedules, transit incentives, bicycle facilities, bicycle-sharing programs, ridesharing services and subsidies, and telecommuting.

Action C.1.A.iii.c. Construct bicycle stations for employees that include bicycle storage, showers, and bicycle repair space.

Action C.1.A.iii.d. Consolidate offices that community members often visit at the same time (such as building permitting and environmental health permitting).

Action C.1.A.iii.e. Continue to utilize a crew-based maintenance plan instead of individual assignments, creating a "carpool effect" that lowers the annual miles traveled for maintenance staff.

Action C.1.A.iii.f. Survey County staff for ideas to reduce vehicle miles traveled while minimizing service delivery impacts.

Policy C.1.A.iv. Encourage the use of alternative fuels in County operations and throughout the community.

Action C.1.A.iv.a. Develop permitting standards and streamline the permitting process for installation of electric vehicle charging stations at residential and commercial buildings.

Action C.1.A.iv.b. Consider installation of electric vehicle charging stations at public facilities, such as at parking lots and airports, for community use.

Action C.1.A.iv.c. Work with electrical providers to develop and implement an electric vehicle charging infrastructure plan.

Action C.1.A.iv.d. Encourage new commercial- and visitor-serving projects to include electric vehicle charging stations in parking areas.

Policy C.1.A.v. Improve public transportation infrastructure.

Action C.1.A.v.a. Work with local transit agencies (e.g., Eastern Sierra Transit Authority and Yosemite Area Regional Transportation System) to increase the number and frequency of routes or capacity of Dial-a-Ride programs serving Mono County.

Action C.1.A.v.b. Continue to monitor the feasibility of a shuttle service connecting hotels, resorts, and campgrounds to locations such as Bodie, Mono Lake, and the June Mountain Ski Area.

Action C.1.A.v.c. Use global positioning system (GPS) and integrated software to increase reliability and timing awareness for system riders through trip planning and location information.

Policy C.1.A.vi. Implement engineering and enforcement solutions to improve vehicle fuel efficiency.

Action C.1.A.vi.a. Support state/Great Basin Unified Air Pollution Control District efforts to implement and enforce limitation on idling for commercial vehicles, construction vehicles, buses, and other similar vehicles.

Action C.1.A.vi.b. Consider the use of roundabouts in lieu of signalized intersections or stop signs as a way to improve traffic flow, reduce accidents, and reduce greenhouse gases.

GOAL LU.1. PROMOTE COMPACT, EFFICIENT, AND CONTIGUOUS DEVELOPMENT IN THE UNINCORPORATED COUNTY.

The low population density and distance between communities in Mono County mean that residents, employees, and visitors often have to travel lengthy distances as part of their daily routines. While the rural quality of Mono County is not likely to change, the policies and actions supporting Goal LU.1 seek to concentrate new development within or adjacent to existing communities, promoting more concentrated communities, preserving undeveloped land, and maintaining Mono County's natural landscape. These actions coordinate new growth and infrastructure in existing community areas, reduce vehicle miles traveled through future transportation plans, and direct future development to locations near transportation nodes.

Locating new growth in existing communities increases the amount of housing, jobs, and services located within the community, and by extension decreases the need to travel to other communities for these activities. Residents, employees, and visitors can walk, bike, or take a short car trip within their community instead of traveling long distances. This decreases the amount of fuel used by vehicles, saving money for vehicle owners and reducing the GHGs and air pollutants. Similarly, new efficient growth can attach to existing infrastructure. These actions also preserve existing agricultural land and open space, protecting Mono County's rural character.

Resource Efficiency Metrics

GHG:	*-2,480 $MTCO_2e/yr$*
Vehicle Mileage:	*-3,558,130 VMT/yr*

Community Benefits

- ✓ Improve air and water quality
- ✓ Promote public health
- ✓ Promote equity
- ✓ Increase housing affordability
- ✓ Increase infill and compact development
- ✓ Revitalize urban and community centers
- ✓ Protect natural resources and agricultural lands
- ✓ Reduce automobile usage and fuel consumption

Objective LU.1.A. Reduce vehicle miles traveled through efficient land use patterns.

Policy LU.1.A.i. Concentrate new growth and development within existing community planning areas.

Action LU.1.A.i.a. Utilize the County's community area boundaries and Local Agency Formation Commission's sphere of influence boundaries, and coordination through the multi-agency Landownership Adjustment Program, to focus growth and infrastructure investment in established community areas.

Action LU.1.A.i.b. Through the regional transportation planning process and the multi-agency Landownership Adjustment Program, develop and adopt a preferred land use and transportation scenario for future development to reduce vehicle miles traveled.

Action LU.1.A.i.c. Utilize the ridgeline and hills ordinance as a way to focus growth within community areas or within spheres of influence.

Policy LU.1.A.ii. Concentrate future tourist-serving and nonresidential development around existing and planned transportation routes and stops.

Action LU.1.A.ii.a. Provide incentives and remove potential barriers to the development of future projects near transit stops and along transit routes.

GOAL LU.2. EVALUATE GREENHOUSE GAS EMISSIONS, AND PLAN FOR MITIGATING AND ADAPTING TO CLIMATE CHANGE.

Climate change is a very broad issue, both in terms of the scope of activities that contribute to it and the potential impacts of climate change on many elements of daily life. As a result, climate change cannot be addressed through a single budget or code update, but rather requires a long-term process to monitor the problem, identify risks and opportunities, and revise the policy response as needed. The policies and actions supporting Goal LU.2 establish a flexible framework for Mono County to address climate change in an effective, cost-efficient way that is consistent with the rural character of the area. This framework allows the County to help mitigate the effects of climate change through more efficient resource use and sustainable development, and to decrease the threats that climate change poses to Mono County by improving the County's adaptive potential. These actions also encourage working with the Town of Mammoth Lakes to create a regional approach to climate change.

These actions are supportive; on their own they do not result in a definitive decrease in resource use or GHG emissions. However, by creating a regional framework to respond to climate change, they integrate issues such as resource efficiency and climate resiliency into Mono County's regular operating practices.

Community Benefits

- ✓ Improve air and water quality
- ✓ Promote public health
- ✓ Promote equity
- ✓ Protect natural resources and agricultural lands
- ✓ Reduce automobile usage and fuel consumption
- ✓ Improve infrastructure systems
- ✓ Promote water conservation
- ✓ Promote energy efficiency and conservation
- ✓ Strengthen the economy

Objective LU.2.A. ***Increase greenhouse gas emission mitigation and adaptation planning efforts.***

Policy LU.2.A.i. Reduce greenhouse gas emissions through local land use and development decisions, and collaborate with local, state, and regional organizations to promote sustainable development.

Action LU.2.A.i.a. Work with the Town of Mammoth Lakes to identify and address existing and potential regional sources of greenhouse gas emissions.

Action LU.2.A.i.b. Analyze impacts of development projects on safety and involve emergency responders and public safety staff early and consistently in development of growth plans.

Action LU.2.A.i.c. Collaborate with the Town of Mammoth Lakes and regional and state agencies to share land use and community design-related information.

Action LU.2.A.i.d. Continue to involve a diverse group of stakeholders through the Regional Planning Advisory Committees and the Collaborative Planning Team in planning processes to ensure that County planning decisions represent community interests.

Resource Efficiency Metrics

As depicted in **Table 5**, state regulations and the anticipated increase in EV adoption rates are anticipated to reduce local emissions by 74,603 $MTCO_2e$ in 2030 and 169,911 $MTCO_2e$ in 2050, while the REP policies would contribute an additional annual GHG emissions reduction of 11,736 $MTCO_2e$ in 2030 and 37,903 $MTCO_2e$ in 2050. Credits from geothermal energy production will contribute 108,000 $MTCO_2e$ reduction per year through 2050. In total, implementation of proposed REP policies would help reduce local sources of emissions by 56% below 2005 levels by 2030 and 86% below 2005 levels by 2050, meeting the GHG reduction targets established by the County.

Table 5: 2030 & 2050 Estimated Emissions Reductions

Reduction Scenario			$MTCO_2e$
2005 Emissions			352,445
2019 GHG Emissions			352,213
2035 Baseline Emissions Forecast			352,213
2050 Baseline Emissions Forecast			352,213
2035 Reductions from RPS + EV Adoption Increase			-102,983
2050 Reductions from RPS + EV Adoption Increase			-166,563
2035 REP Policy Reductions			-17,294
2050 REP Policy Reductions			-37,903
2035 Geothermal Credits			-108,000
2050 Geothermal Credits			-108,000
2035 Estimated Emissions Levels			**123,935**
2050 Estimated Emissions Levels			**59,916**
2035 % below 2005:	**-64%**	**2050 % below 2005:**	**-83%**

Figure 10 summarizes the estimated resources that will be saved by 2030 and 2050 in the unincorporated Mono County community through the implementation of REP goals, policies, and actions.

Figure 10: 2035 Annual Resource Efficiency Summary

Metric	2030 Savings & Credits	Units
GHG	-228,510	$MTCO_2e$
Electricity	-30,411,980	kWh
Propane	-175,590	gallons
Wood	-4,310	tons
Waste	-2,700	tons
Vehicle use	-3,558,130	VMT

4. IMPLEMENTATION

Monitoring and Updating this Plan

To ensure the success of this updated REP, the County will implement the identified actions. As the County moves forward with updating other regulatory and planning documents, such as specific plans or building regulations, staff will ensure that these documents support and are consistent with the updated REP. The County will also review new project proposals for consistency with the REP using the GHG Checklists enclosed in Appendix B.

Implementing the REP will require County leadership to execute the actions and report progress. Many of the actions will be dependent upon the allocation of staff time and resources, and budget prioritization. The plan identifies a responsible department and offers time frames and relative costs associated with each policy. Staff will monitor implementation progress using an implementation and monitoring tool and will report to the Board of Supervisors on annual progress. Monitoring efforts should be conducted at the highest levels of County government, which will help to coordinate monitoring work and ensure that items are being addressed without unnecessary redundancies. As part of annual progress reports, staff will evaluate the effectiveness of each policy to ensure that anticipated emissions reductions are occurring. In the event that reductions do not occur as expected, the County can modify and add policies or actions to ensure the target is achieved.

The following programs are designed to ensure success in implementing the REP.

***Implementation Program 1:** Bi-annually monitor and report progress toward achieving resource efficiency targets.*

Actions to support Implementation Program 1:

- ***A.*** Identify key staff responsible for annual reporting and monitoring.
- ***B.*** Use the monitoring and reporting tool to assist with annual reports.
- ***C.*** Prepare an annual progress report for review and consideration by the Regional Planning Advisory Committees, Planning Commission, and Board of Supervisors.

Implementation Program 2: Update the baseline emissions inventory and REP every five years.

Actions to support Implementation Program 2:

- ***A.*** Prepare an updated emissions inventory every 5 years.
- ***B.*** Update the REP no later than 2027 to incorporate new technology, programs, and policies that reduce emissions and consider a reduction target for future horizons consistent with state legislation.
- ***C.*** Update and amend the REP, as necessary, should the County find that specific measures are not achieving intended emissions reductions.

Implementation Program 3: Continue to develop collaborative partnerships with agencies and community groups that support REP implementation.

Action to support Implementation Program 3:

- ***A.*** Continue to participate in local and regional organizations that provide tools and support for energy efficiency, energy conservation, GHG emissions reductions, adaptation, education, and implementation of this plan.

Implementation Program 4: Pursue funding to implement REP policies and actions.

Actions to support Implementation Program 4:

- ***A.*** Identify funding sources and levels for REP policies and actions as part of annual reporting.
- ***B.*** Include REP policies and actions in the capital improvement program and other plans as appropriate.
- ***C.*** Pursue local, regional, state, and federal grants to support implementation.

Tracking Success

An Excel-based monitoring tool has been developed to support effective monitoring and implementation of the REP. The implementation and tracking program identifies the lead department and funding needs for implementation. It also allows the County to track progress in reducing emissions, VMT, waste generation, and energy use over time using readily available data sources.

The tool is an interactive workbook used to collect data, track GHG emissions and resource consumption, and assess the effectiveness of REP policies and actions. It enables the County to sort measures based on timing, responsible department, and level of success, progress, or completion. The tool also includes a dashboard to track measurable data, such as energy use, waste generation, and VMT, over time. The dashboard provides a snapshot of activity and emissions that can assist County staff to provide annual updates on progress toward achieving GHG reduction and resource conservation goals.

Work Plan

The work plan provided in **Table 6** contains information to support staff and community implementation of the REP policies and actions and to effectively integrate them into budgets, the capital improvement program, and other programs and projects.

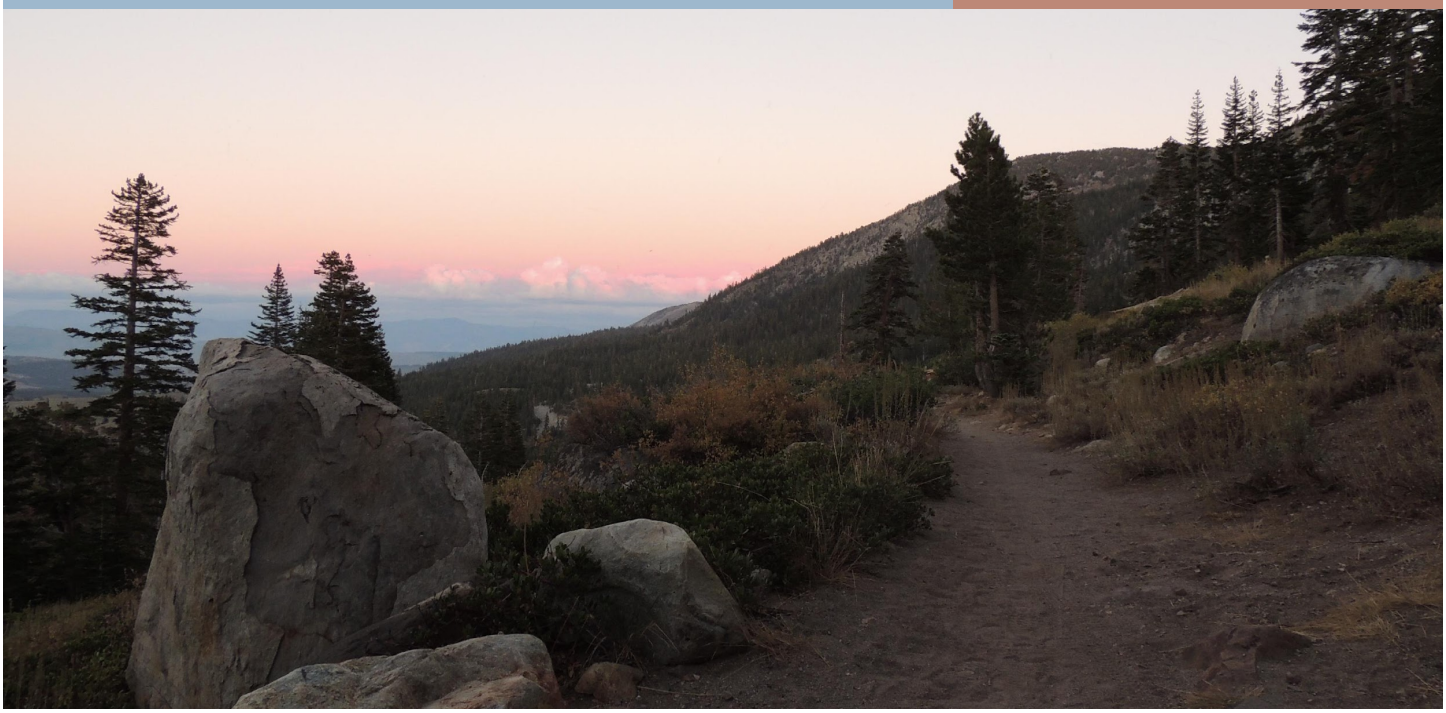
Table 6: Mono County Resource Efficiency Plan Work Plan

Goal/Objective/Policy/Action	2035 Emissions Reductions ($MTCO_2e/yr$)	Department Lead	County Costs	Applicability	Agency or Organization Partners	Performance Standards (Compared to 2005 baseline)
Conservation and Open Space Element						
Goal CO.1. Improve energy efficiency in existing buildings.						
Objective CO.1.A. Improve the information and support available to residential and nonresidential property owners to reduce energy use.						
Policy CO.1.A.i. Work with nonprofits and utility providers to provide property owners with technical assistance, energy efficiency programs, and financial incentives.	-3,420	Community Development - Planning	Low	Existing Development	SCE, Eastern Sierra Energy Initiative	10,000 light bulbs given away 750 owner-occupied houses retrofitted 120 businesses retrofitted
Policy CO.1.A.ii. Provide green building information and resources in a publicly available format, such as a dedicated page on the County website.	-340	Community Development - Building	Low	Existing Development	SCE, Eastern Sierra Energy Initiative, IMACA	500 weatherized houses
Objective CO.1.B. Increase the number of programs available and accessibility to capital to assist residential and nonresidential properties with implementation of resource-efficient practices.						
Policy CO.1.B.i. Provide programs and information to reduce existing energy use.	-3,840	Community Development - Planning	Low	Existing Development	GBUAPCD	1,200 woodstoves replaced 200 owner-occupied PACE retrofits 200 rental home PACE retrofits
Policy CO.1.B.ii. Encourage energy-efficient measures and practices through standard County programs, such as well and building permits.	-410	Community Development - Planning	Low	Existing Development	SCE, Eastern Sierra Energy Initiative	140 well pumps replaced 600 residential HVAC upgrades 160 nonresidential HVAC upgrades 50 residential time of sale retrofits 10 nonresidential time of sale retrofits
Policy CO.1.B.iii. Provide incentives and information to support upgrades to rental properties, non-primary housing, and other types of housing.	-1,720	Community Development - Planning	Medium	Existing Development	SCE, Eastern Sierra Energy Initiative	950 rental home retrofits 380 mobile home retrofits
Objective CO.1.C. Reduce energy use in existing County facilities.						
Policy CO.1.C.i. Continue progress toward net zero energy use in County facilities.	-410	Public Works - Facilities	High	County Operations	SCE	50% of County buildings with cool roofs installed 75% of County buildings converted to efficient appliances 100% of County buildings implementing low-cost solutions (e.g., more efficient lights and smart power strips) 100% of County buildings using daylighting
Policy CO.1.C.ii. Continue to manage maintenance and ongoing programs that support energy reduction.	-360	Public Works - Facilities	High	County Operations	SCE	100% of County buildings retrocommissioned 100% of County buildings using energy monitoring 100% of County buildings using light sensors

Goal/Objective/Policy/Action	2020 Emissions Reductions ($MTCO_2e/yr$)	Department Lead	County Costs	Applicability	Agency or Organization Partners	Performance Standards (Compared to 2005 baseline)
Goal CO.2. Reduce energy use in new construction and major renovations.						
Objective CO.2.A. Increase green building practices in new construction and major renovations.						
Policy CO.2.A.i. Support and promote residential and nonresidential green building construction.	-150	Community Development - Planning	Low	New Development	SCE	40 new residential buildings built to above Title 24 standards 15 new nonresidential buildings built to above Title 24 standards
Policy CO.2.A.ii. Continue to transition to green building practices in new County facilities.	-310	Public Works - Facilities	High	New Development	SCE	50% reduction in energy use (from typical building design)
Goal CO.3. Preserve open space and agriculture to sequester carbon and promote local food production.						
Objective CO.3.A. Improve the health and resilience of the natural and agricultural landscape.						
Policy CO.3.A.i. Maintain open space and manage open space from fire and erosion.	—	Community Development - Planning	Low	n/a	Bureau of Land Management, US Fire Service, Mammoth Lakes Fire Protection District	none (supportive policy)
Policy CO.3.A.ii. Encourage other programs that protect natural areas.	—	Community Development - Planning	Low	n/a	Bureau of Land Management, US Fire Service, Mammoth Lakes Fire Protection District	none (supportive policy)
Policy CO.3.A.iii. Support optimal agricultural practices.	-20	Agricultural Commissioner	Low	n/a	UC Cooperative Extension	fertilizer best practices implemented
Goal CO.4. Encourage appropriately-scaled renewable energy generation for use within the county.						
Objective CO.4.A. Increase renewable energy generation that is consistent with the county's visual and aesthetic qualities and values.						
Policy CO.4.A.i. Support and incentivize residential and nonresidential distributed renewable energy generation.	-5,380	Community Development - Planning	Medium	New and Existing Development	SCE	1,500 solar installations
Policy CO.4.A.ii. Encourage community-scale (<3 MW) renewable energy development on suitable lands, such as a biomass co-generation facility.	-170	Community Development - Planning	Medium	n/a	Bureau of Land Management, GC Forest Products, Inc., Inyo National Forest, Mammoth Lakes Fire Protection District, Mammoth Mountain Ski Area, Sierra Nevada Conservancy, and SCE	1 MW biomass facility

Goal/Objective/Policy/Action	2020 Emissions Reductions ($MTCO_2e/yr$)	Department Lead	County Costs	Applicability	Agency or Organization Partners	Performance Standards (Compared to 2005 baseline)
Goal CO.5. Reduce generation of waste within the county.						
Objective CO.5.A. Reduce waste deposited in the county's landfills.						
Policy CO.5.A.i. Increase composting and recycling programs, and reduce waste generation, throughout the county.	-2,280	Public Works - Solid Waste	High	n/a	Town of Mammoth Lakes, Sierra Conservation Project	65% diversion rate
Policy CO.5.A.ii. Promote a standard of reduce, reuse, and recycle within County government operations.	-20	Public Works - Solid Waste	Low	County Operations	n/a	20 tons (25%) of paper reduced
Policy CO.5.A.iii. Partner with other agencies, such as the Town of Mammoth Lakes, on green procurement, waste reduction, and recycling activities.	—	Public Works - Solid Waste	Low	n/a	Town of Mammoth Lakes, Sierra Conservation Project	none (supportive policy)
Objective CO.5.B. Reduce greenhouse gas emissions from County solid waste operations.						
Policy CO.5.B.i. Reduce or offset methane generation from county landfills.	-1,430	Public Works - Solid Waste	High	County Operations	Town of Mammoth Lakes	13% reduction in methane generation (town and county)
Goal CO.6. Ensure a sustainable long-term supply of water, and meet or exceed applicable water quality standards.						
Objective CO.6.A. Protect and conserve water resources throughout communities.						
Policy CO.6.A.i. Encourage reduced water consumption in residential and nonresidential properties.	-40	Community Development - Planning	Low	New and Existing Development	n/a	230 homes with greywater 10 businesses with greywater 6,500 water-efficient fixtures 30% of outdoor area with improved irrigation
Policy CO.6.A.ii. Protect water quality throughout communities.	—	Community Development - Planning	Low	New and Existing Development	n/a	none (supportive policy)
Objective CO.6.B. Promote sustainable alternatives to reduce and treat wastewater.						
Policy CO.6.B.i. Promote energy-efficient wastewater treatment and biosolids recycling practices.	-620	Community Development - Planning	Low	New Development	n/a	8,630 (74%) of residents and tourists on packaged systems 100% of wastewater system pumps replaced
Goal CO.7. Collaborate with community partners, and empower the public to improve resource efficiency within the county.						
Objective CO.7.A. Leverage resources regionally to build capacity for resource efficiency programs.						
Policy CO.7.A.i. Work with local schools to support educational opportunities that promote resource efficiency.	—	Community Development - Planning	Low	n/a	Mono County Office of Education	none (supportive policy)
Policy CO.7.A.ii. Collaborate with local, state, and regional agencies and organizations to identify resource conservation opportunities and share information.	—	Community Development - Planning	Low	n/a	Town of Mammoth Lakes, Caltrans, Bureau of Land Management, Inyo National Forest	none (supportive policy)
Policy CO.7.A.iii. Support and participate in the outreach, education, and collaboration efforts of the Eastern Sierra Energy Initiative partnership.	—	Energy Task Force	Low	n/a	SCE, Eastern Sierra Energy Initiative	none (supportive policy)

Goal/Objective/Policy/Action	2035 Emissions Reductions ($MTCO_2e/yr$)	Department Lead	County Costs	Applicability	Agency or Organization Partners	Performance Standards (Compared to 2005 baseline)
Circulation Element/RTP						
Goal C.1. Improve connectivity and efficiency of resident and employee transportation within the county.						
Objective C.1.A. Expand resident and visitor transportation options.						
Policy C.1.A.i. Provide for viable alternatives to travel in single-occupancy vehicles.	-3,320	Community Development - Planning	High	New and Existing Development	n/a	See supporting transportation and land use analysis – Appendix A
Policy C.1.A.ii. Improve efficiency of County fleet operations.	-240	Public Works - Roads	High	County Operations	n/a	50% of County vehicles replaced
Policy C.1.A.iii. Reduce vehicle miles traveled from employee commutes and County operations.	-160	Community Development - Planning	Low	County Operations	n/a	10% of County employees telecommuting
Policy C.1.A.iv. Encourage the use of alternative fuels in County operations and throughout the community.	—	Community Development - Planning	Medium	County Operations	n/a	See supporting transportation and land use analysis – Appendix A
Policy C.1.A.v. Improve public transportation infrastructure.	—	Community Development - Planning	Medium	New and Existing Development	Eastern Sierra Transit Authority, Yosemite Area Regional Transportation System	See supporting transportation and land use analysis– Appendix A
Policy C.1.A.vi. Implement engineering and enforcement solutions to improve vehicle fuel efficiency.	—	Community Development - Planning	Medium	New and Existing Development	Caltrans	See supporting transportation and land use analysis– Appendix A
Land Use Element						
Goal LU.1: Promote compact, efficient, and contiguous development in the unincorporated county.						
Objective LU.1.A. Reduce vehicle miles traveled through efficient land use patterns.						
Policy LU.1.A.i. Concentrate new growth and development within existing community planning areas.	-1,990 -40	Community Development - Planning	Medium	New Development	n/a	See supporting transportation and land use analysis – Appendix A 30,000 acres in resource conservation or conservation easements
Policy LU.1.A.ii. Concentrate future tourist-serving and nonresidential development around existing and planned transportation routes and stops.	-450	Community Development - Planning	Low	New Development	n/a	2% transit mode share of future development
Goal LU.2: Evaluate greenhouse gas emissions, and plan for mitigating and adapting to climate change.						
Objective LU.2.A. Increase greenhouse gas emission mitigation and adaptation planning efforts.						
Policy LU.2.A.i. Reduce greenhouse gas emissions through local land use and development decisions, and collaborate with local, state, and regional organizations to promote sustainable development.	—	Community Development - Planning	Low	n/a	n/a	none (supportive policy)



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Appendices

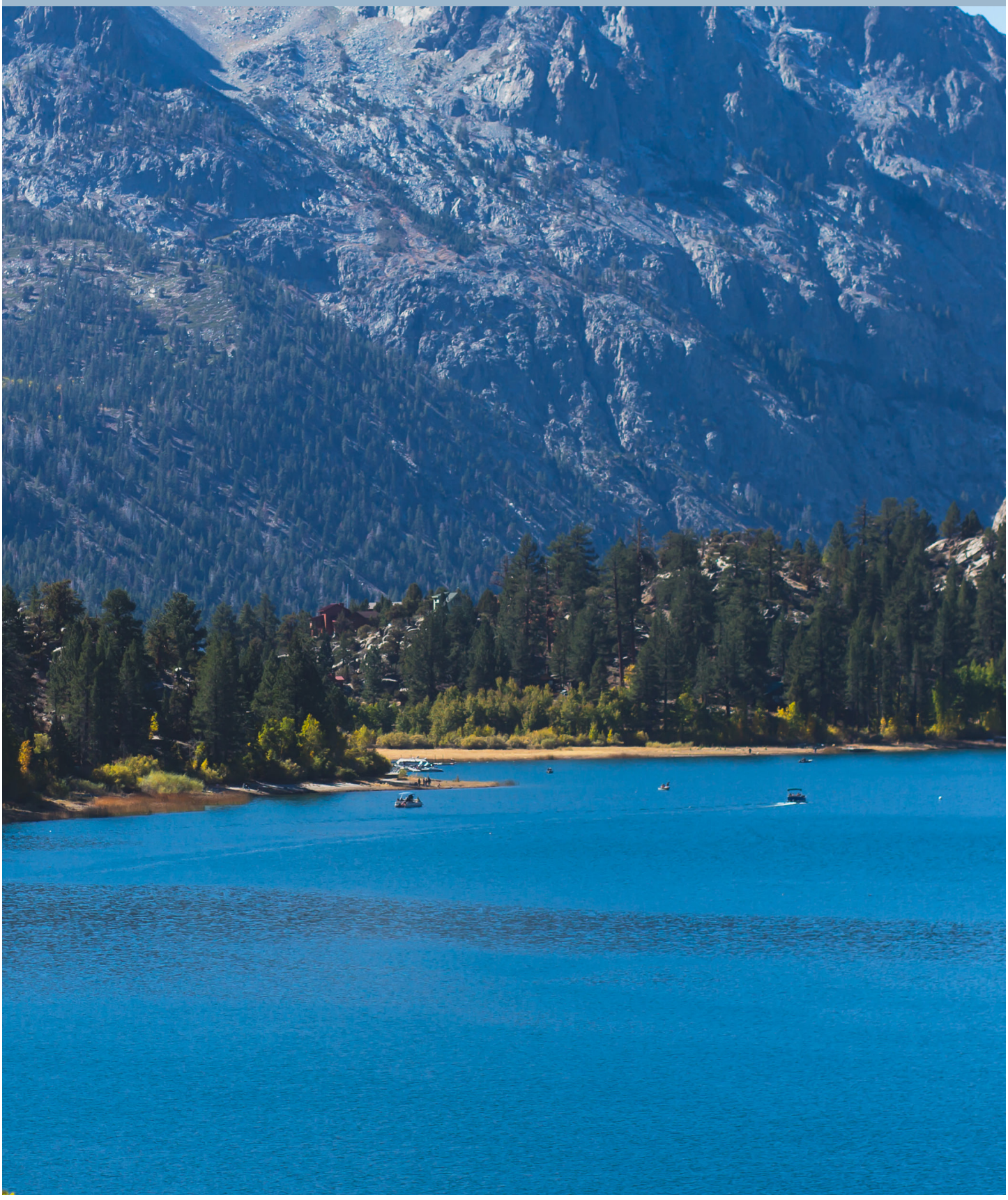
Appendix A: Technical Memos

- Baseline GHG Inventory
- GHG Emissions Forecast

Appendix B: GHG Checklists

- County Projects
- Private Development Projects

Appendix A: Technical Memos



Technical Notes for Mono County GHG Assessment

INTRODUCTION

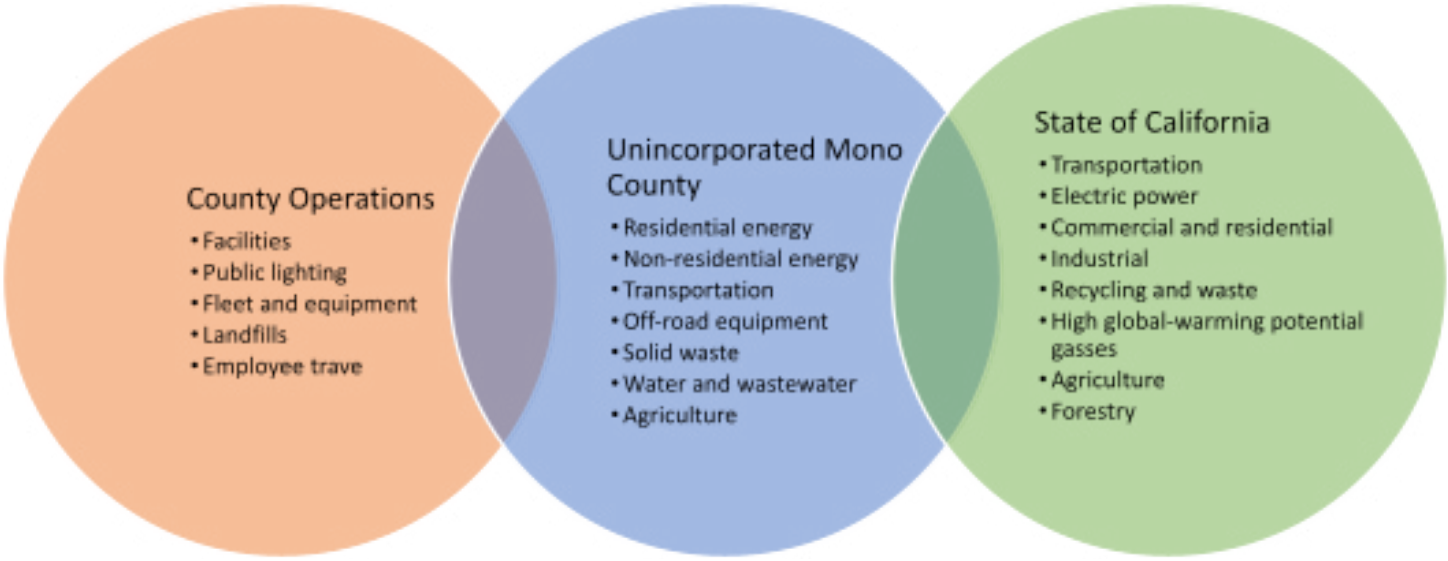
This memo presents the technical process behind an update of Mono County's Resource Efficiency Plan. It consists of two baseline GHG emissions inventories: emissions in unincorporated Mono County (community inventory) and emissions for Mono County government operations (government operations inventory). It describes baseline emissions in the calendar year 2019 and provides a starting point for the County to understand the local emissions profile of both the community and County government operations as well as the County's role in reducing statewide emissions consistent with the goals of the California Global Warming Solutions Act of 2006 and the California Environmental Quality Act (CEQA) Guidelines. It also offers a forecast of emissions through 2050 and the methodology used to perform it.

For purposes of supporting the General Plan Environmental Impact Report (General Plan EIR) and compliance with CEQA, the County must assess existing conditions using the most current information available. As a result, this memo includes the sources of data and the means by which estimates were made when necessary.

There is a set of established protocols to assist communities in assessing GHG emissions from government operations and community activities. In California, many communities utilize the US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, commonly referred to as the US Community Protocol, to identify and assess community activities, and the California Air Resources Board (CARB) Local Government Operations Protocol, commonly referred to as LGOP, to identify and assess GHG emissions from local government activities.

While these protocols are not regulatory, they identify relevant sources or activities, recommend methods to estimate GHG emissions from each source, and provide consistency in the identification, assessment, and presentation of emissions results across multiple jurisdictions. The County government operations and community inventories for Mono County are consistent with the US Community Protocol and LGOP and include the sources identified in Figure 1. For comparison purposes, the activities considered in the State of California's GHG emissions inventory are also presented in Figure 1.

Figure 1: County government, Community, and State inventory emission sectors



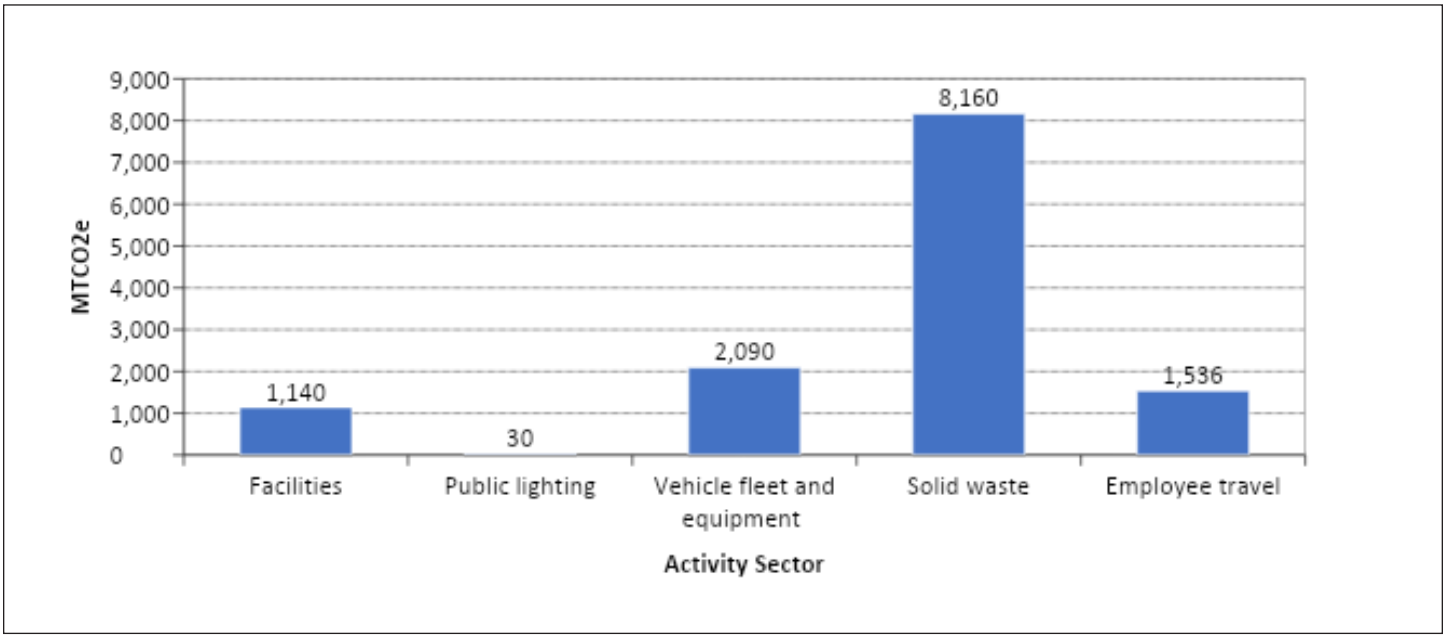
COUNTY OPERATIONS

GHG emissions from Mono County government operations in 2019 totaled approximately 12,956 metric tons of carbon dioxide equivalent ($MTCO_2e$) emissions, as shown in Table 1 and Figure 2. The landfills operated by the County, represented the largest source of emissions, accounting for 8,160 $MTCO_2e$, or 63% of all County government operation emissions. The second largest source of emissions was the County's vehicle fleet and equipment (2,090 $MTCO_2e$, 16%), followed by emissions from employee travel (1,536 $MTCO_2e$, 12%), and energy used at County facilities (1,140 $MTCO_2e$, 9%). The remaining government operation emissions (30 $MTCO_2e$, less than 1%) were attributed to public lighting, which includes streetlights owned or maintained by the County. Table 1 summarizes the government operations inventory results. A detailed description of how emissions were calculated for each activity is provided in the activity data and energy use methods section of this memo.

Table 1: Emissions from Government Operations, 2019

Sector	Emissions (MTCO2e)	Percentage
Facilities	1,140	9%
Public lighting	30	0%
Vehicle fleet and equipment	2,090	16%
Landfills	8,160	63%
Employee travel	1,536	12%
TOTAL emissions	12,956	100%

Figure 2: County Operations Emissions, 2019



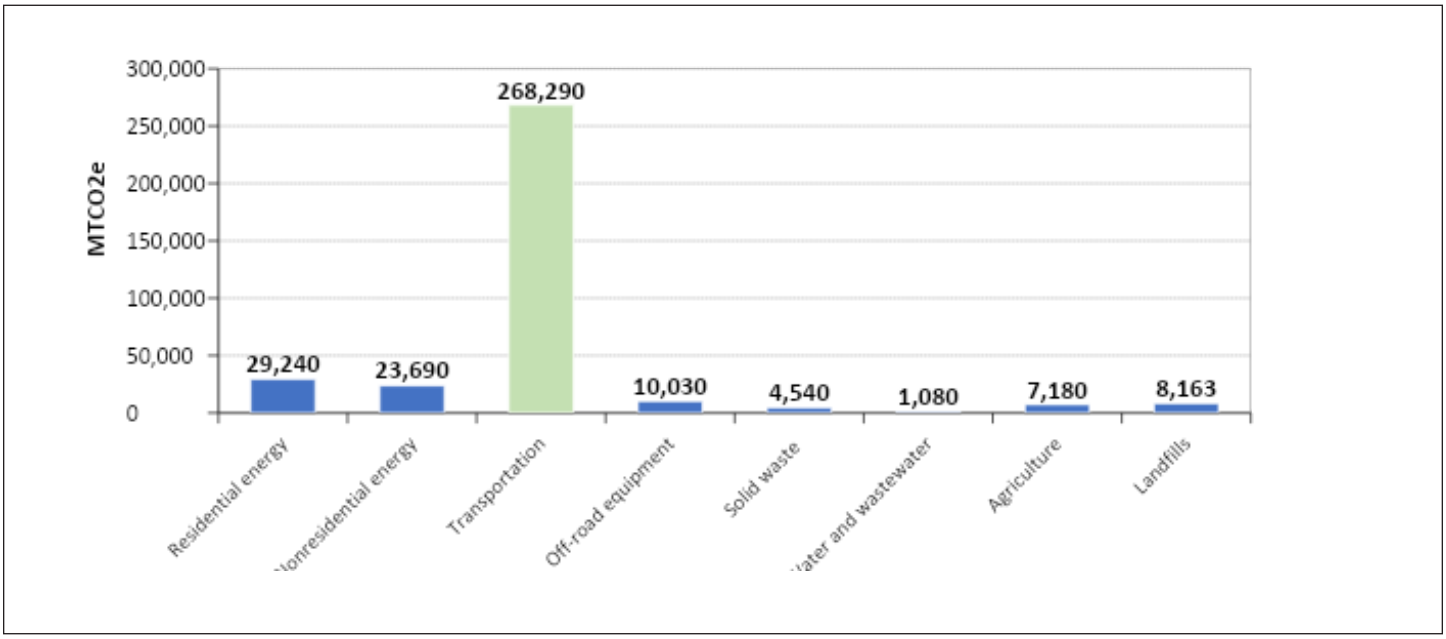
UNINCORPORATED MONO COUNTY EMISSIONS

Similar to most California communities, transportation (on-road vehicles) was the largest source of emissions (268,290 $MTCO_2e$, 76%) in Mono County in 2019[1], followed by residential energy use (29,240 $MTCO_2e$, 8%)[2], nonresidential energy use (23,690 MTCO2e, 19%), and off-road equipment (10,030 $MTCO_2e$, 3%). The remaining community emissions (20,963 $MTCO_2e$, 6%) were attributed to solid waste, water and wastewater, and agriculture. Additionally, the landfill emission is imported from County Operations. Table 2 and Figure 3 summarize the community inventory results.

Table 2: Total Community Emissions, 2019

Sector	Emissions (MTCO2e)	Percent of Total
Residential energy	29,240	8%
Nonresidential energy	23,690	7%
Transportation	268,290	76%
Off-road equipment	10,030	3%
Solid waste	4,540	1%
Water and wastewater	1,080	0%
Agriculture	7,180	2%
Landfills (imported from County Ops)	8,160	2%
TOTAL Emissions	352,213	100%

Figure 3: Unincorporated Mono County Emissions



[1] The methodology for measuring VMT changed from 2010 to 2019, pushing the value of VMT far higher than in the previous study.

[2] Electricity usage came from the supplying utility, but for the year 2020 rather than 2019; this year was significantly impacted by the COVID-19 virus as many businesses employed work from home mandates, and some other retail-facing enterprises closed. This is likely part of the reason for the relative increase in residential energy use/emissions compared to nonresidential use/emissions.

COMPARISON TO 2005 COMMUNITY EMISSIONS

The California Global Warming Solutions Act of 2016 (SB 32) identifies a statewide goal to reduce emissions to 40% below 1990 levels by 2030. However, the availability of data can compromise a jurisdiction's ability to accurately assess emissions generated from activities in the community in 1990. In lieu of 1990 emissions estimates, CARB recommends that jurisdictions assess emissions for a calendar year between 2005 and 2008 and determine an appropriate amount to reduce emissions by 2020. CARB's AB 32 Climate Change Scoping Plan (2008) identifies a reduction of approximately 15% below 2005 emissions as equivalent to 1990 emissions. To maintain consistency with CARB guidance, the County has prepared a community inventory for 2005 to provide a basis to establish an appropriate emissions reduction target.

GHG emissions from activities occurring in unincorporated portions of the county totaled approximately 359,755 $MTCO_2e$ in 2005 and 352,213 $MTCO_2e$ in 2019. Between 2005 and 2019 emissions fell approximately 3% (see Table 3).[3]

Table 3: Emissions Comparison

Sector	2005 (MTCO2e)	2010 (MTCO2e)	2019 (MTCO2e)	Change since 2005 (%)
Residential energy	23,270	26,210	29,240	26%
Nonresidential energy	29,900	30,390	23,690	-21%
Transportation[4]	268,015	268,035	268,290	0.10%
Off-road equipment	7,000	7,520	10,030	43%
Solid waste	4,330	4,720	4,540	5%
Water and wastewater	1,540	1,690	1,080	-30%
Agriculture	18,390	21,920	7,180	-61%
Landfills	7,310	9,510	8,163	12%
TOTAL	**359,755**	**367,310**	**352,213**	**-2.1%**

Per Capita Greenhouse Gas Emissions

To assist in comparing emissions with other jurisdictions or between years where population varies, these totals can also be presented as per-capita emissions, as shown in Table 4. Because Mono County emissions are heavily influenced by tourism, per-capita emissions can be calculated both for the permanent population and for the effective annual population (described below).

	2005 (MTCO2e)	2010 (MTCO2e)	2019 (MTCO2e)
Emissions	359,755	369,995	352,213
Unincorporated Population	5,876	5,968	6,327
Effective Population	9,958	11,172	11,614
Emissions per Effective Population	36	33	30

[3] The increase in residential energy use in 2019 is due to the fact that 2020 data was used as a proxy for 2019 for this sector. Residential energy use in 2020 was deeply affected by the COVID lock downs as commercial properties closed and is likely unusually high. The utility provided the County with electricity use figures for 2020.

[4] Due to the new methodology used in determining emissions from VTM in 2019, the 2005 values needed to be updated from the previous report to reflect the new methodology. This table includes the updated values.

ACTIVITY DATA AND ENERGY USE METHODS

The following section describes the sources, methods, and results for calculating emissions from each activity analyzed in the County government operations and Community (unincorporated Mono County) inventories[5]. This information and activity data also provides the technical foundation for assessing the effectiveness of future policies and programs at reducing both GHG emissions and the consumption of resources.

ELECTRICITY

In 2020[6], approximately 24,269,650 kilowatt hours (kWh) of electricity were consumed in unincorporated Mono County for residential use, while about 15,663,630 kWh were consumed for nonresidential uses (electricity consumed by commercial, industrial, and agricultural operations, as well as street lighting and institutional buildings such as schools and community facilities). Electricity in Mono County is currently supplied by two utility providers: Southern California Edison (SCE) and Liberty Utilities (formerly Sierra Pacific Power Company). Table 3 identifies total electricity use in 2020 by utility provider and use class.

Table 4: 2020 Electricity Use and Emissions

Sector	Utility	Total kWh	$MTCO_2e$
Residential	SCE, Liberty Utilities	24,269,650	4,700
Non-residential	SCE, Liberty Utilities	15,663,630	3,170
TOTAL		39,933,280	7,870

SCE's service territory covers the majority of Mono County, including the communities of Benton, Bridgeport, Chalfant, Crowley Lake, Crestview, June Lake, Lee Vining, Paradise, Pumice Valley, and Toms Place. SCE provides approximately 83% of the electricity used in the unincorporated county.

Beginning in 2011, Liberty Utilities assumed responsibility from Sierra Pacific Power Company to provide electricity service to the northern portion of Mono County, including the unincorporated communities of Coleville, Topaz, and Walker. Liberty Utilities provides approximately 17% of the electricity used in the unincorporated county.

Electricity use provided by the Utilities in residential and nonresidential buildings, accounted for 7,870 $MTCO_2e$ (about 2% of total community emissions and included as a subset of the residential energy and nonresidential energy sectors in Table 2). Residential electricity use contributed 4,700 $MTCO_2e$, or approximately 60% of electricity emissions, while electricity uses at nonresidential buildings emitted 3,170 $MTCO_2e$ (40%).

Electricity used to support government operations resulted in 200 $MTCO_2e$ in 2020. Electricity provided by SCE constituted 170 $MTCO_2e$ (85% of these emissions), while electricity service from Liberty Utilities accounted for the remaining 30 $MTCO_2e$ (15%).

Notes on electricity calculations. Electricity use from Liberty Utilities was inferred, as data was not made available. It was therefore based on a percentage of SCE electricity found in the 2015 REP. The emission factors used to calculate emissions from electricity were taken from the EPA's eGrid website, unless otherwise available from a local source. The emission values applied for 2019 were 1.63E-04 $MTCO_2e$/kWh for Liberty and 2.88E-04 $MTCO_2e$/kWh for SCE.

[5] The full volume of emissions from County Operations is not added to the Community Emissions total. Only landfill emission totals are added. This avoids double counting of electricity use, electricity uses for water and wastewater, VMT, solid waste disposal, etc.

[6] Electricity figures are from 2020 and used as a proxy for 2019.

HEATING FUELS

In more populated areas of California, heating for buildings is largely provided by natural gas, delivered through a network of pipelines. This service is not provided in unincorporated Mono County. Instead, wood and propane are the primary heating fuels, with small amounts of other sources, such as kerosene. Approximately 4.8 million gallons of propane were used in 2019. Propane is used in some residential (1.2 million gallons) and nonresidential buildings (3.57 million gallons). Wood is the other source of heating fuel emissions. Approximately 10,530 tons of wood were used to heat residential buildings in 2019. Table 4 summarizes the quantity of fuel used for residential and nonresidential purposes. Mono County government buildings and facilities relied mostly on propane, with limited diesel use for backup generators.

Table 5: Heating fuel source and emissions

Sector	Amount	Unit	$MTCO_2e$
Residential wood	10,530	Tons	17,450
Residential propane	1,235,290	Gallons	7,090
Non-residential propane	3,573,030	Gallons	20,520
TOTAL	NA		45,060

In 2019, heating fuels contributed about 45,060 $MTCO_2e$ to the community inventory, counting both residential and nonresidential uses. Propane use accounted for the largest volume of emissions, 27,610 $MTCO_2e$, which was 61% of heating fuel emissions. Wood burning accounted for the remaining 17,450 $MTCO_2e$ (39%). Emissions from fuels used for government operations totaled 960 $MTCO_2e$ in 2019, with 950 $MTCO_2e$ (99%) from propane use and 10 $MTCO_2e$ (1%) from diesel use.

VEHICLE FUEL CONSUMPTION

In 2019, on-road vehicle-use in unincorporated Mono County resulted in approximately 468 million vehicle miles traveled (VMT), resulting in emissions of 268,290 $MTCO_2e$ (see Table 8). Office of Planning and Research (OPR) guidance recommends trip-based VMT estimates be used over boundary-based VMT for estimating greenhouse gas emissions from on-road mobile sources. To determine the amount of VMT occurring outside Mono County from intercounty vehicle trips, Longitudinal Employment and Housing Dynamic (LEHD) journey-to-work data was used to estimate the weighted average trip length to each "gateway" into Mono County. (LEHD data is based on Block Groups of which there are a total of 17 of which six represent the City of Mammoth Lakes.) For a full overview of the VMT methodology please see the attached Memorandum on VMT.

Table 6: Vehicle travel emissions (2019)

Sector	Amount	Unit	$MTCO_2e$
On-road passenger vehicles	468,464,570	VMT	268,290
TOTAL	468,464,570	VMT	268,290

Note on VMT calculations. While the VMT totals were generated using a new methodology, the emissions from VMT followed EMFAC figures (and projections for the forecasts). EMFAC percentages of vehicle types were used to allocate miles traveled for each vehicle class. From EMFAC, emission factors for each vehicle class can also be generated. The following Table shows the vehicle classes, percentages applied, emission factors and total emissions for each class.

Table 7: VMT Breakdown for emissions calculations

2019	% EMFAC VMT	Unincorporated Annual VMT	Emission Fact. (MTCO2e/mile)	Total Emissions
USBUS	0.07%	320,720	0.0014262	457
LDA	40.84%	191,331,097	0.0003619	69,236
LDT1	5.82%	27,270,076	0.0004454	12,147
LDT2	22.94%	107,478,883	0.0004729	50,824
LHD1	5.26%	24,643,085	0.0009530	23,485
LHD2	1.32%	6,168,002	0.0010089	6,223
MCY	0.47%	2,217,586	0.0002678	594
MDV	16.90%	79,180,739	0.0005734	45,401
MH	0.21%	964,686	0.0019672	1,898
Motorcoach	0.07%	313,293	0.0021364	669
OBUS	0.12%	555,366	0.0021795	1,210
PTO	0.02%	115,191	0.0026163	301
SBUS	0.07%	327,607	0.0012554	411
T6	0.61%	2,854,573	0.0017814	5,085
T7	5.28%	24,723,671	0.0020364	50,347
TOTAL		468,464,574		268,290

OFF-ROAD EQUIPMENT FUEL CONSUMPTION

The off-road equipment sector is made up of vehicles and machinery that consume gasoline or diesel fuels but do not travel on roads. There are nine categories of off-road equipment, consisting of agriculture, construction/mining equipment, industrial, boats, and off-road recreational vehicles, among others. In 2019, use of this equipment in the unincorporated county resulted in emissions of 10,030 $MTCO_2e$, or 3% of community emissions. The two largest sources of off-road equipment emissions were Agriculture, which contributed 2,760 $MTCO_2e$ and pleasure craft (1,770 $MTCO_2e$).

Vehicle use for government operations was divided into two categories: the County's on-road vehicle fleet, and employee commute and travel using private vehicles or public transportation. In 2019, the County's vehicle fleet (not counting fuel used for equipment) used 131,020 gallons of fuel, resulting in 1,270 $MTCO_2e$ of GHG emissions (800 $MTCO_2e$ from gasoline, 470 $MTCO_2e$ from diesel). County employee commutes and business travel accounted for 1,182 $MTCO_2e$, while employee travel for business purposes emitted 355 $MTCO_2e$.

[7] Data source: CARB, EMFAC for off-road.

Table 8: Off-road equipment emissions

Sector	$MTCO_2e$
Agriculture	2,760
Construction and mining	600
Industrial	20
Lawn and garden	260
Light Commercial	310
Oil Drilling	10
Pleasure Craft	1,770
Recreational	200
Transport Refrigeration Units	4,100
TOTAL	**10,030**

The County government also operates a variety of off-road equipment, including dump trucks, graders, and snowblowers. Off-road fuel totals for 2019 were extrapolated from 2010 fuel use based on County employees. This process led to an imperceptible change since the employee count was virtually unchanged (from 330 employees in 2010 to 325 in 2019). Emissions for 2019 were calculated to be 810 $MTCO_2e$.

Annual fuel use and GHG emissions from community off-road equipment use is provided at a countywide level by CARB. For agricultural equipment use and oil drilling, all equipment use is assumed to occur in unincorporated Mono County. For these reasons, the 810 $MTCO_2e$ of additional emissions is not added to the Community portion.

WASTE DISPOSAL

In 2019, residents, businesses, and visitors to the unincorporated areas of Mono County sent 6,900 tons of solid waste to landfills. Much of this material was sent to the Benton Crossing Landfill with smaller amounts to other facilities. To comply with state and federal standards, at the end of each operational day, landfills must cover disposed waste with tarps, soil, or other materials, known as alternative daily cover (ADC) to help reduce odor, control litter, deter insects, wildlife, or rodents, and protect public health. In 2019, 510 tons of ADC was also deposited at landfills, resulting in a total of 7,410 tons of waste placed in landfills in 2019. As waste decomposes over time in the oxygen-free environment of landfills, methane, a potent GHG, is produced. Emissions from the decomposition of landfilled materials deposited in landfills exclusively in 2019 accounted for 4,540 $MTCO_2e$ of community emissions.

Table 9: Waste disposal and emission

Sector	Amount	Unit	MTCO2e
Municipal Solid Waste	6,900	Tons	3,660
Alternative Daily Cover	510	Tons	880
Total	7,410	Tons	4,540

In 2019, refuse collected at County government facilities totaled approximately 970 tons of solid waste, based on employee estimates. The decomposition of this waste constituted 720 MTCO2e of the government operations inventory.

LANDFILL MANAGEMENT

In addition to waste disposed in 2019, Mono County operates three active landfills: Benton Crossing, Pumice Valley, and Walker. Each landfill generates methane based on previous waste disposal. By 2019, approximately 827,000 tons of waste had been deposited at these three facilities since they were permitted in the early 1970s. The Benton Crossing Landfill is the primary disposal site for waste generated in Mono County and the Town of Mammoth Lakes, with 81% of the total deposits. About 75% of the materials deposited typically comes from the Town of Mammoth Lakes; however, the management of each landfill is the responsibility of the County, thus they are included in the County government operations inventory. The location of these landfills in unincorporated Mono County further warrants their inclusion in the community inventory as an activity. County landfills released methane equivalent to approximately 8,163 $MTCO_2e$ from decomposing materials.

The California Department of Resources Recycling and Recovery (CalRecycle) provides annual data describing the solid waste and ADC for all jurisdictions and landfills in the state. These disposal tonnage figures were converted into greenhouse gas emissions using CARB's landfill modeling tool, which uses climate and waste composition data to calculate GHG emissions. While this method differs from the US Community Protocol, it is considered more accurate and appropriate for use in California.

WATER USE AND WASTEWATER DISPOSAL

Emissions from water use is equivalent to the emissions from the electricity necessary to pump it, treat it, and distribute it. The analysis from 2019 showed that the unincorporated jurisdiction used 356 mega gallons and 652 MWh to pump, treat, and distribute it. Further, the 2019 per capita use rate was 95 gallons/person/day[8], having fallen from 165 gallons/person/day in 2010[9]. The reason for the decline was largely the decline in irrigation, according to County personnel. Regarding electricity use for water, it was assumed that there have not been significant efficiency gains in the amount of electricity required per gallon of use. Therefore, using the same kWh/gallon of use, at the reduced rate of usage, it was calculated that the jurisdiction used 652,495 kWh in water withdrawal, treatment, and distribution. These kilowatt hours were assigned the SCE emission factor of 2.06E-04 $MTCO_2e$/kWh, listed above. Total emission for water use was 130 $MTCO_2e$.

Wastewater treatment in the unincorporated areas of Mono County is provided by individual septic tanks or through small-scale community sewer treatment facilities. Septic tanks are used by approximately 65% of the population, while sewer treatment facilities accommodate the remaining 35%. No change from 2010 was assumed in the approximately 2,200 septic systems located in the unincorporated county, leaving approximately 1,110 sanitary sewer connections to the Bridgeport Public Utilities District (PUD), Hilton Creek Community Service District, June Lake PUD, and Lee Vining PUD.

Wastewater in a septic tank is decomposed by microorganisms, producing methane gas. In 2019, septic tanks located throughout unincorporated Mono County produced an estimated 944 $MTCO_2e$ of GHG emissions, the estimate based on the slight decline from 2010 coming from a change in effective population. The sewer systems in the unincorporated county treat water using a trickling filter, which results in substantially lower emissions. In 2019, approximately 49 MG of unincorporated county water was treated through a sewer system, producing about 4 $MTCO_2e$ of GHG emissions. These systems require some electricity to operate, resulting in an additional 14 $MTCO_2e$.

[8] Mammoth Community Water District. 2020 Urban Water Management Plan. May 2021. P. 5.

[9] County-wide 2015 data from USGS: http://waterdata.usgs.gov/ca/nwis/water_use/. Use-rates used as a proxy for unincorporated jurisdiction.

Water use figures were provided by the US Geological Survey[10], while information on water sources was obtained from local water providers. The California Energy Commission and the US Community Protocol provided data on emissions from different water sources and wastewater treatment systems. Emissions factors for electricity use were provided by eGrid.

Table 10: Water and Wastewater volumes and emissions for 2019

Sector	Units	Amount	MTCO2e
Water consumed	mega Gallons	356	
Water-related energy use	kWh	652,500	130
Wastewater-related energy use	kWh	46,660	10
Process emissions wastewater treatment	sewer connections	1,171	0
Septic tanks	septic tanks	2,200	940

AGRICULTURE

Emissions from agriculture amounted to an estimated 7,180 $MTCO_2e$ in 2019. The figure captures emissions from fertilizers and livestock. Acreage data was provided by the County, and emissions calculations occurred in the model. As can be seen, there has been significant reduction in total farmed land, which resulted in a reduction in GHG for the sector.

Crops	2010 Acreage	2019 Acreage	2019 grams of nitrogen applied	2019 MTCO2e
Alfalfa hay	11,000	4,541	0	0
Misc. hay	5,000	871	0	0
Garlic	65	5	612,349	2
Potatoes	106	90	9,185,238	28
Wine grapes	4	15	102,058	0
TOTAL	16,175	5,522	9,899,645	31

LIVESTOCK

Emissions from livestock are calculated by multiplying the population of the various breeds in the jurisdiction by the enteric fermentation emission factors for each breed. Livestock populations in the County have fallen since 2010, likely the result of a long drought in the region, which prevents the use of irrigation of rangeland (the same cause is likely behind much of the decline in per capita water use mentioned above).[11]

[10] County-wide 2015 data from USGS: http://waterdata.usgs.gov/ca/nwis/water_use/.

[11] Livestock values are approximate. According to County officials, "Mono tends to host a significant number of cattle during the summer months. 10,000 cattle in inventory (rough estimate, as several large ranches run cattle 50% Mono 50% Inyo, and we have a few that do 40% Mono and the rest in other counties)". Email received April 25, 2022.

The County provided overall livestock population figures for cattle; the sheep population was not included and was therefore considered the same as in the 2015 REP (sheep have a relatively small enteric fermentation emission factor, so a conservative approach, leaving the population unchanged, was taken). To calculate the $MTCO_2e$ totals in the final column, the population is multiplied by the emission factor to yield the CH_4 per year in kilograms. The result is multiplied by the global warming potential (GWP) for methane (21) and then divided by 1000 to arrive at metric tons.

Livestock Type	Population*	Emission factor	kg CH_4/yr.	MTCO2e/yr.
Calves	381	0.000	0	0
Steers	615	54.210	33,316	700
Heifers	866	48.000	41,579	873
Cows	381	73.800	28,152	591
Bulls	28	53.000	1,474	31
Stockers	2,728	54.210	147,911	3,106
Sheep/Lambs	11,000	8.000	88,000	1,848
TOTAL	15,619		340,431	7,149

**Assumes a seasonal adjustment factor of 50%.*

ADDITIONAL PROTOCOLS AND METHODS

The following describes additional methods, metrics, and protocols used to quantify and estimate community and County government operation emissions.

EFFECTIVE ANNUAL POPULATION

Several data items used to estimate GHG emissions from energy use and transportation occurring in Mono County are only available at the countywide level (i.e., include both unincorporated Mono County and the Town of Mammoth Lakes). While population and households are often appropriate metrics used to estimate emissions within a city or county, the heavy influence of visitors and tourism on the local economy in Mono County dictates the need for a modified approach that considers how tourism influences energy use, travel patterns, and resulting GHG emissions.

To ensure countywide emissions sources and activities are appropriately divided between the Town of Mammoth Lakes and unincorporated Mono County, effective annual population metrics that account for both permanent residents and visitors have been identified for 2020 (see Table below). These metrics rely on 2020 US Census data for the permanent populations of the town and county, in addition to data from Mono County's Economic Impact Visitor Profile Study (2008), the California Travel and Tourism Commission's 2010 Annual Report on Travel Impacts by County (2011), and the Mammoth Community Water District's Urban Water Management Plan (2011) to estimate annual visitors. This effective annual population metric has been applied to propane use, water use, and on-road transportation to assign countywide results to the unincorporated county.

The unincorporated county effective annual population uses countywide tourism for the effective population for all of Mono County, then subtracts the effective population of the Town of Mammoth Lakes. The number of average daily visitors rises from 2005 to 2020 despite the relatively stable resident population.

		2005	2020
Resident Population	Town of Mammoth Lakes	7,887	7,859
	Unincorporated Mono County	5,876	5,596
	Mono County Total	13,763	13,455
	Mono County Total from DOF	13,763	13,447
	% In unincorporated	43%	41.6%
Annual Visitor Days	Town of Mammoth Lakes	2,888,245	4,546,440
	Unincorporated Mono County	1,489,801	1,740,407
	Mono County Total	4,378,046	6,286,847
	% In unincorporated	34%	28%
Effective Annual Visitors	Town of Mammoth Lakes	7,913	12,456
	Unincorporated Mono County	4,082	4,768
	Mono County Total	11,995	17,224
	% In unincorporated	34%	28%
Effective Annual Population	Town of Mammoth Lakes	15,800	20,315
	Unincorporated Mono County	9,958	10,364
	Mono County Total	25,758	30,679
	% In unincorporated	39%	34%

PROTOCOLS

These inventories were prepared using data collected by Mono County and from multiple external sources. Protocols identify the sources of emissions that should be included in an inventory and recommended methods to calculate the volume of emissions for each source. The community inventory was prepared in a manner consistent with the best practices and methods recommended by ICLEI's US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (2012). The US Community Protocol identifies specific sources of greenhouse gas emissions that should be included in a community inventory. Table 11 lists the required sources under the US Community Protocol and explains, when applicable, why a source has been excluded. This table does not list all sources included in the inventory, as some sources were not required for the inventory but were still included (e.g., agriculture).

Table 11: Community Protocol Required Emissions Sources

Source	Included in Community Inventory?	Reason for Exclusion
Heating fuels, and other residential and commercial stationary fuel use	Yes	
Use of electricity by the community	Yes	
On-road passenger vehicles	Yes	
Solid waste	Yes	
Energy associated with water use	Yes	
Energy associated with wastewater use	Yes	

The government operations inventory was prepared in a manner consistent with the best practices and methods recommended by the CARB Local Government Operations Protocol (LGOP) (2010). LGOP identifies specific sources of GHG emissions that should be included in a government operations inventory. Table 12 lists the required sources under LGOP and explains, when applicable, why a source has been excluded.

Table 12: Emission Sources and Exclusions from County Operations

Source	Included in Government Inventory?	Reason for Exclusion
Heating fuels and other stationary combustion	Yes	
Government electricity use	Yes	
Government steam and districting heating/cooling use	No	Does not occur
On-road fleet vehicle and equipment use	Yes	
Government-operated solid waste facilities	Yes	
County government wastewater facilities	No	Does not occur
Refrigerant leaks from government equipment	No	Data not collected
Employee commute	Yes	

EMISSIONS ACCOUNTING PRACTICES

When aggregating emissions, it is important to identify and avoid "double-counting" emissions whenever possible. Double-counting occurs when a single emissions source or activity is counted in multiple emissions categories (such as sectors) or in multiple jurisdictions. In the community inventory, double-counting is avoided, when possible, by reporting activities and sources as line items rather than as larger aggregated groups. Communities often aggregate sources and activities into sectors or other groups, due to a limited ability to disaggregate data, which can lead to double-counting.

The County government operations inventory is intended to be a subset of the community emissions inventory, as most County government activities occur in the unincorporated county. For presentation purposes, the two inventories should not be added together. Rather, the County government operations inventory should be considered a portion of the community inventory. Therefore, the only category from Government Operations that has been added to the Community total is emissions from Landfill management.

TERMINOLOGY

Baseline year: Emissions are presented for the calendar year of 2019.

Carbon dioxide equivalent (CO_2e): The universal unit for representing the six different GHGs (see definition of greenhouse gas emissions) in one single unit by converting each gas into the equivalent potency of carbon dioxide. CO_2e is commonly expressed in $MTCO_2e$. A metric ton equals 2,205 pounds.

Greenhouse gas emissions (GHG): Gases that trap heat in the earth's atmosphere are called greenhouse gases, or GHGs. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). While many of these gases occur naturally in the atmosphere, modern human activity has led to a steep increase in the amount of GHGs released into the atmosphere over the last 100 years. Collectively, these gases intensify the natural greenhouse effect, thus causing global average surface temperatures to rise, which in turn affects global climate patterns. GHGs are often quantified in terms of CO_2 equivalent, or CO_2e, a unit of measurement that equalizes the potency of GHGs.

Sector: Emissions are grouped by the type of activity that generates the emissions, such as on-road transportation, building energy use, solid waste, etc.

Mono County Resource Efficiency Plan

Introduction

To evaluate Mono County's Resource Efficiency Plan (REP) forecasts of emissions have been generated in a bottom-up approach based on anticipated sector demand. First, a business-as-usual (BAU) emission forecast estimates how emissions would grow over time if no action were taken at the federal, state, or local level to reduce them. A BAU forecast has been prepared for Mono County's government operations and community activities, assuming that 2019 energy consumption, waste disposal, and vehicle travel rates on a per person or per effective population rate remain constant. The 2019 emissions rates are combined with applicable growth indicators identified in the Growth Indicators and Forecast Methods section to determine the anticipated increase in emissions. An adjusted BAU (ABAU) forecast has also been prepared that incorporates State actions in the electricity sector, specifically the renewables portfolio mandate that electricity generation is zero carbon by 2045.

The BAU and ABAU forecasts address two years: 2035 and 2050, the 2035 forecast aligning with the Senate Bill (SB) 375 horizon. The Greenhouse Gas Emissions Forecast section identifies the anticipated growth in emissions by 2035 and 2050 based on the applicable growth indicators.

Following completion of the greenhouse gas (GHG) emissions inventory and BAU/ABAU forecasts, the next step in the resource efficiency planning process is to evaluate GHG reduction target options and determine the appropriate level of emissions reductions that Mono County should strive to achieve in the Resource Efficiency Plan (REP). The Greenhouse Gas Reduction Targets section outlines considerations for setting a GHG reduction target, identifies different reduction targets the County could set for both County government and community activities, provides examples of GHG reduction targets set by similar jurisdictions, and recommends a preliminary GHG reduction target for the REP.

Growth Indicators and Forecast Methods

To forecast emissions to 2035 and 2050, a set of indicators determines the extent to which growth may occur and resulting emissions may change. The following growth indicators are essential components to estimating how the emissions in Mono County may increase over time.

COUNTY GOVERNMENT GROWTH INDICATORS AND FORECAST METHODS

County government employee estimates were used to forecast most County government operations emissions for 2035 and 2050 (see Table 1); employee estimates were based on County population trends. Staffing levels in 2019/2020 were 325. Based on this metric, the number of County employees is estimated to grow to 343 employees by 2035, and 360 by 2050. This results in a 10.7% net increase in the number of County employees between 2020 and 2050, which aligns with anticipated growth in the number of residents in Mono County over the same time frame.

Table 13: County Government Employee Estimates

	2010	2020	2035	2050
Employee Total	324	325	343	360

Source: Consultant Estimates

Emissions from County-operated landfills are forecast based on the amount of waste disposed at each landfill by the community (both unincorporated county areas and the Town of Mammoth Lakes). Therefore, emissions from these landfills are forecast using effective countywide population. Landfill emissions forecasts also assume that the Benton Crossing Landfill will no longer accept additional waste after 2023. The waste sector forecasts assume that deposits that were taken by Benton Crossing would be exported, following that facility's closure. As a result, the buildup of deposits in the County will decrease, though landfill emissions will continue.

COMMUNITY GROWTH INDICATORS AND METHODS

Community growth indicators were derived using a combination of sources, including the California Department of Finance (DOF), the US Census Bureau, the California Air Resources Board (CARB), Caltrans, and California's Economic Development Department (EDD). Since these escalation factors are often different between agencies, the forecasts occasionally use a calculated growth indicator. Table 2 identifies growth indicators and sources used to forecast community emissions.

Table 14: Community Growth Indicators and Methods

Growth Indicator	2020	2035	2050	Growth 2020-2050	Source
Resident Population	5596	5792	5995	7%	Census & Effective Population Projection
Effective Annual Population	10,364	11,206	11,489	11%	DOF
Households	4,637	5,014	5,141	11%	Census & DOF
Annual VMT (million miles/year)	474.2	560.4	541.6	14%	EMFAC/DKS

Population. Resident population projections are prepared by the DOF for the state and apportioned to counties for the next 50 years based on birth rates, historic growth, and current economic trends. However, other government agencies use different growth rates in their analysis. For this forecast, a calculated growth rate, that is based on effective population historical growth and projected growth, was used. Historic growth rates show that since incorporation of the Town of Mammoth Lakes in 1984 through 2010, the town population increased at a rate more than 4 times that of the unincorporated county. Between 2010 and 2020, the total County population decreased by 4%. Also, between 2010 and 2020, the unincorporated county population decreased by 6%. The California Department of Finance projects total County population to rise slightly between 2020 and 2032, before beginning a gradual decline. The 2020 Mono County Water Plan adopts a constant growth rate of 0.23%, and calculations of effective population in the county yield a growth rate of 0.47%; it was this growth rate that was applied annually for projection purposes.

Annual effective population estimates combine permanent resident population figures with a modest 0.4% increase in visitors per year to unincorporated Mono County, based on EDD projections describing average annual employment growth in the Leisure and Hospitality industry, and the proportion of Leisure and Hospitality jobs anticipated in the unincorporated county.

Households. The growth in the number of occupied households aligns with the anticipated growth in resident population, assuming that the average number of people per household based on 2020 Census data remains constant through the forecast period.

Transportation. Countywide growth estimates for vehicle miles traveled (VMT) were developed by DKS for the County. EMFAC projections then provided the percentage breakdowns of different types of on-road vehicles, and a baseline adoption rate for Electric Vehicles. This rate was considered too low given the new Executive Order that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035[12]. Therefore, the forecast assumes that the rate of EV adoption leads to a 3% annual emission savings in the on-road transportation sector[13].

Agriculture. Changes in population, employment, or other indicators that can be accurately forecast do not necessarily result in proportional changes in local agricultural activity. Due to the difficulties in predicting the nature of agricultural operations in the unincorporated areas of Mono County, activity in this sector is presumed to remain constant through 2020 and 2035. The resident population, effective population, households, and job forecast indicators are applied to the baseline community GHG emissions inventory to determine the emissions growth by applying the growth rates of each indicator to the sectors identified in Table 3.

Table 15: Growth Indicators by Community Sector

Sector	Indicator/Method
Residential energy use	Households
Nonresidential energy use	Population
On-road passenger vehicles	Full trip length/Intercounty trips
Off-road activities	EMFAC projection
Solid waste	Methane emission tool (CARB)
Water and Wastewater	No forecasted change
Agriculture	No forecasted change
Landfill and County Operations	Population

Greenhouse Gas Emissions Forecast

An emission forecast estimates how emissions would grow over time if no actions were taken at the federal, state, or local level to reduce them. Emissions forecasts have been prepared for both Mono County's government operations and unincorporated community activities, assuming that energy consumption, waste disposal, and energy efficiency rates remain constant using the forecast indicators described above.

COUNTY GOVERNMENT OPERATIONS FORECAST

The County government operations emissions forecast estimates how emissions would grow if County government resource consumption rates remained constant at baseline levels, but the number of employees and buildings increases to provide services and improved amenities to Mono County's growing number of visitors and residents.

As shown in Table 12 and Figure 4, emissions from County operations grew from 2010 to 2019 by 11%. However, they are expected to decrease by 13% from 2020 to 2035, and then again by 24% by 2050. The largest emissions decrease comes in the area of employee travel as the expectation is that uptake of electric vehicles from the aforementioned Executive Order leads to a 3% year on year emissions reduction from that activity. Emissions from landfills also decrease significantly due to closure of Benton Crossing. All other government operations sectors are anticipated to fall, but less rapidly.

[12] Office of Governor, Gavin Newsom. 2021. Governor Newsom Announces California Will Phase Out Gasoline-Powered Cars & Drastically Reduce Demand for Fossil Fuel in California's Fight Against Climate Change. https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-drastically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/.

[13] ICLEI High Impact Action Vehicle Electrification webinar, slide 25 (Aug. 24, 2021). The Webinar offers a range of possible EV adoption rates, from 3% to 9%. An emission savings of 3% year over year, was adopted as a conservative approach based on current market trends.

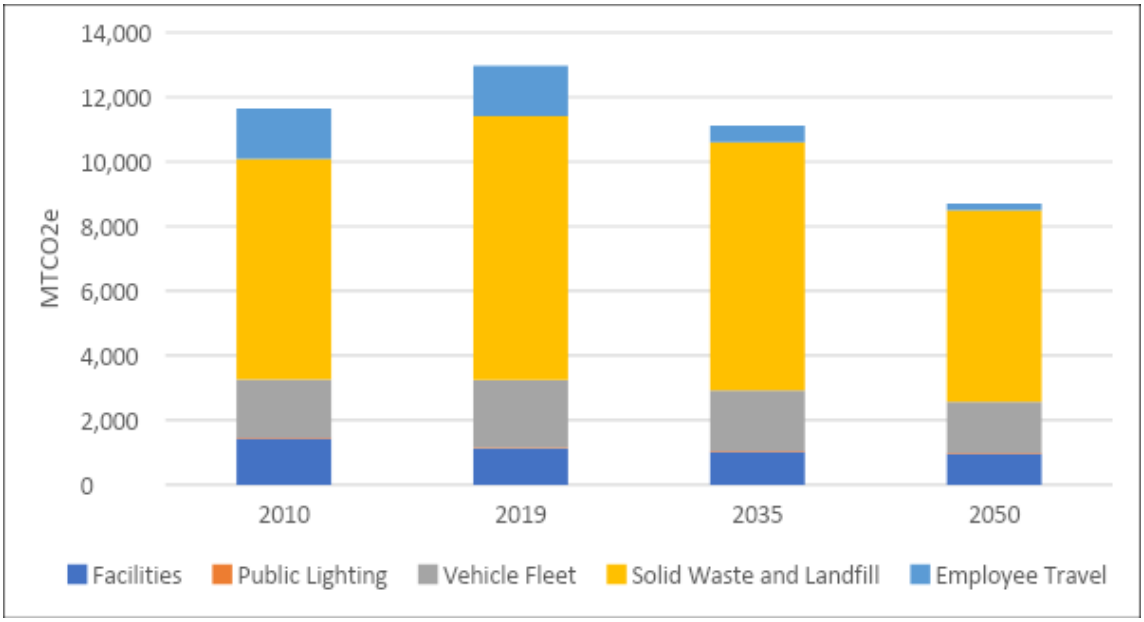
The solid waste sector includes methane generation from landfills operated by the County, including the Benton Crossing Landfill, which is expected to close in 2023. The life cycle of a landfill has a methane generation profile similar to that of a bell curve in that it typically peaks within a year or two after a landfill closes and then gradually declines over time. As a result, annual emissions in Mono County's solid waste sector increase during the next five years, but then experience a decline following 2028.[14]

Table 16: County Operations Emissions by Category

	2010	*2019*	*2035*	*2050*
Facilities	1,430	1,132	1,030	960
Public Lighting	30	30	30	30
Vehicle Fleet	1,800	2,090	1,863	1,578
Solid Waste and Landfill	6,825	8,160	7,679	5,931
Employee Travel	1,560	1,560	506	200
TOTAL County Emissions	11,645	12,972	11,108	8,699

[14] For the forecast, the modeling was accomplished using two models. The first was EPA's LandGem, which allows for easier forecasting function than the CARB Landfill Gas model. However, LandGem output is significantly lower than the CARB model, due to different base conditions. To "true-up" the forecast to historical values, a delta was added to match the CARB output.

Figure 4: County Operations GHG Emissions by Category (2035 and 2050 are Forecasts)



COMMUNITY EMISSIONS FORECAST

The community emissions BAU forecast estimates how emissions would grow in the absence of renewable portfolio standards (RPS) or any County actions from the REP. Each sector's estimated change in emissions is identified in Table 17. Community-wide emissions are anticipated to decrease by 7% from 2020 levels by 2035 and by approximately 13% from 2010 levels by 2035 (see Figure 2). However, once State RPS have been applied, emissions levels fall more rapidly, as can be seen in Table 18 and Figure 6.

Table 17: BAU Community emission forecast (MTCO2e/year)

Sector	2019	2035	2050	Growth 2020-50
Residential Energy	*29,219*	*33,010*	*39,475*	35%
Nonresidential energy	*23,553*	*23,943*	*24,029*	2%
Transportation	*268,290*	*239,055*	*202,954*	-24%
Off-road equipment	*10,030*	*10,374*	*6,062*	-40%
Solid Waste	*4,540*	*4,226*	*3,432*	-24%
Water and wastewater	*1,080*	*1,934*	*2,728*	153%
Agriculture	*7,180*	*7,180*	*7,180*	0%
Landfills	*8,160*	*7,679*	*5,931*	-27%
TOTAL	*352,052*	*327,401*	*291,791*	-17%
Growth from 2019	NA	-7.3%	-18.8%	NA

Figure 5: ABAU Components and Trend of Total Emissions

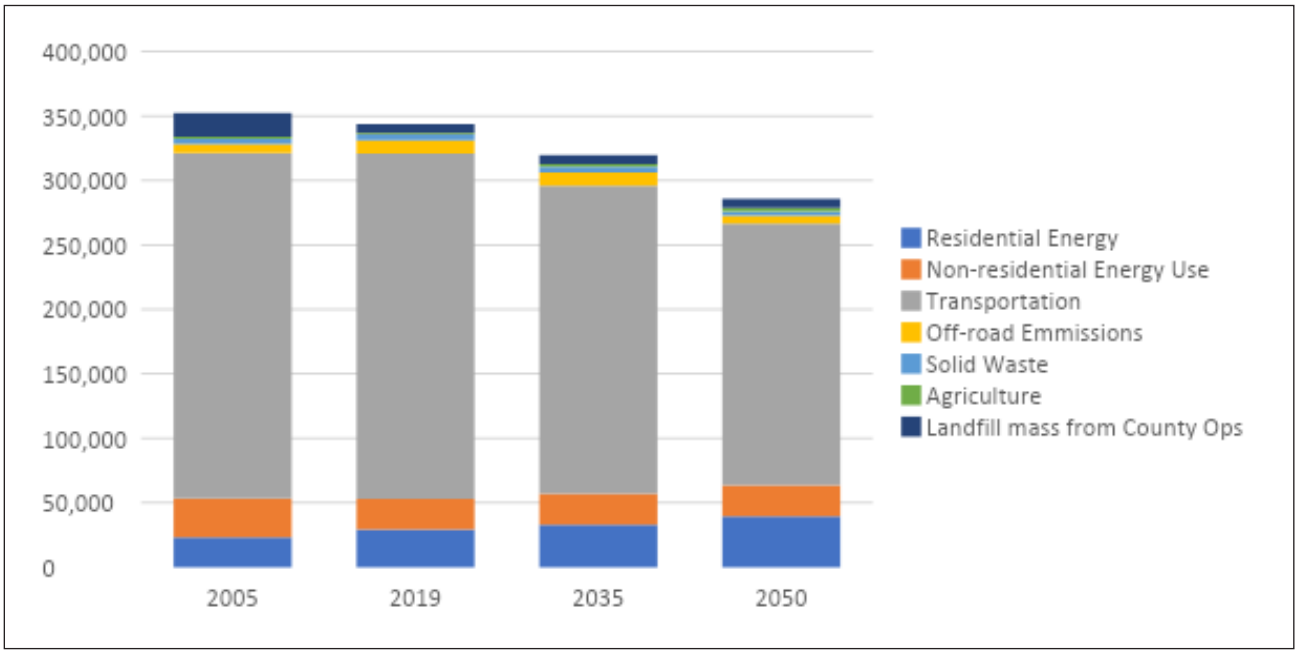
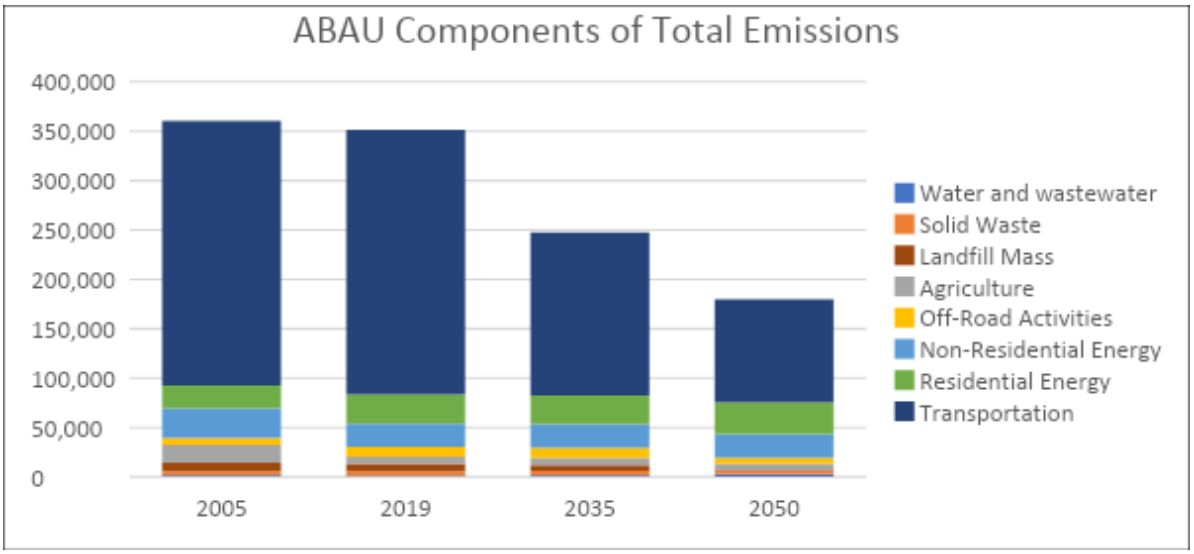


Table 18: ABAU Emission forecasts including State RPS

Sector	2019	2035	2050	Growth 2019-50
Residential Energy	*29,219*	29,180	32,065	10%
Nonresidential energy	*23,553*	23,943	24,029	2%
Transportation	*268,290*	164,798	104,359	-61%
Off-road equipment	*10,030*	10,374	6,062	-40%
Solid Waste	*4,540*	4,226	3,432	-24%
Water and wastewater[15]	*1,080*	1,851	2,592	140%
Agriculture	*7,180*	7,180	7,180	0%
Landfills	*8,160*	7,679	5,931	-27%
TOTAL	*352,052*	249,230	185,650	-17%
Growth from 2019	NA	-34%	-29.5%	NA

[15] The increase in emissions from water and wastewater in 2050 comes mostly from projected growth in septic systems.

Figure 6: Components and Trend of Total Emissions, including State RPS (Adjusted BAU)



GREENHOUSE GAS EMISSIONS REDUCTION TARGETS

Many jurisdictions throughout California have considered reducing their community's GHG emissions by preparing a climate action plan, GHG reduction strategy, or resource efficiency plan. The preparation of these plans is typically motivated by the community's desire to develop comprehensive sustainability strategies and/or in response to AB 32, Executive Order S-3-05, SB 375 (see Figure 3), Attorney General comment letters on general plans, California Environmental Quality Act (CEQA) Guidelines, or air district guidance. This memo describes Mono County's authority as a CEQA lead agency to identify cumulative emissions thresholds supported by substantial evidence and guidance for assessing GHG impacts in a manner consistent with State CEQA Guidelines Section 15183.5(b).

Figure 7: GHG Reduction Targets Legislative Context

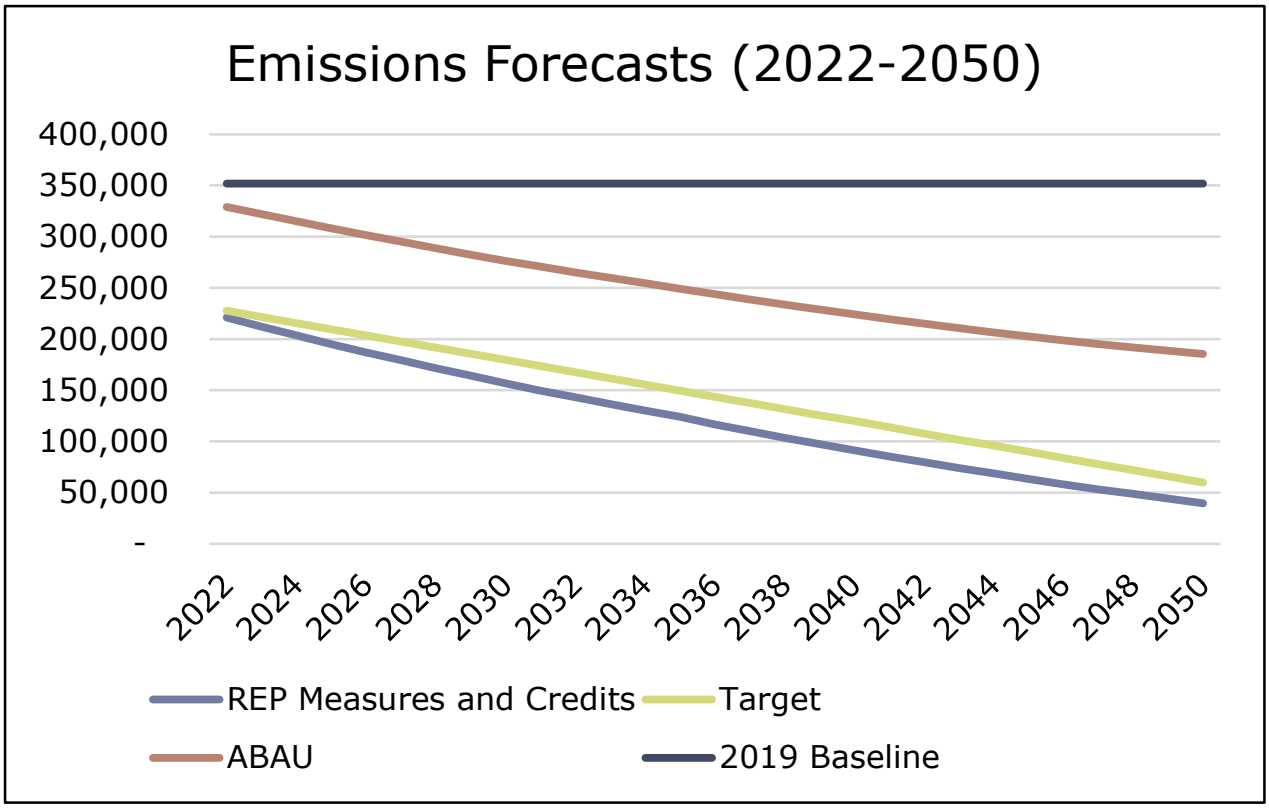
California Global Warming Solutions Act of 2016 (SB 32)	•Reduce statewide emissions to 20% below 1990 levels by 2020 •CARB Climate Change Scoping Plan (2017) identifies a proxy for 1990 values as equivalent to 15% below 2005 emissions
Executive Order S-3-05	•Reduce statewide emissions to 80% below 1990 levels by 2050
EO B-55-18	•Establishes a statewide goal to achieve carbon neutrality by 2045
EO N-79-20	•Sets statewide target of 100% of in-state sales of new passneger cars and trucks to be zero emission by 2035

The County's approach to addressing GHG reductions within the Resource Efficiency Plan follows a process similar to many other California jurisdictions that includes:

- Completing a baseline GHG emissions inventory and projecting future emission.
- Identifying a community-wide GHG reduction target.
- Preparing a GHG reduction strategy with policies to meet the reduction target.
- Integrating targets and resource efficiency policies into the General Plan.
- Implementing policies and monitoring effectiveness.

Figure 8 offers a projection based on this Resource Efficiency Plan. First, the graphic shows a 2019 baseline, that allows for a comparison with current emissions. Second, it depicts an adjusted baseline that incorporates State mandates of renewable portfolio standards (and EV adoption rates of 3%). Third, it traces the County's adopted targets of decreasing emissions, beginning with an emission level of 20% below 1990 by 2020, 40% below 1990 by 2030, and 80% by 2050[16]. Finally, the figure illustrates the downward trend of County emissions after the implementation of this Resource Efficiency Plan, on top of State actions. To reach these goals will require significant compliance with state pans of RPS and EV adoption.

Figure 8: Projections of Community and County Ops Emissions, After Implementation of State and County Strategies, Compared to Baseline, ABAU, and Target



[16] Due to data constraints for the year 1990, a proxy value of 15% below 2005 was substituted for 1990 emissions.

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Appendix B: GHG Checklists

Appendix B

MONO COUNTY PLANNING DEPARTMENT

Greenhouse Gas Compliance Checklist

County Projects

A. GENERAL PROJECT INFORMATION:

Date: _____

Project name: _____ **Case No**: _____

Project address, block, and lot: _____

Compliance Checklist Prepared By: _____ **Date:** _____

Brief Project Description:

_____

_____

_____

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with a policy or regulation may be determined to be inconsistent with Mono County's Resource Efficiency Plan. (See next page)

Appendix B

Greenhouse gas checklist – County projects

Table 1 Regulations Applicable to County/Public Projects[1]

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Energy Efficient Measures and Practices				
Action CO.1.C.i.c. Conservation and Open Space Element Action 16.c.1.c.	Replace appliances and equipment in County-owned and leased buildings with energy-efficient models.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.C.i.e. Conservation and Open Space Element Action 16.c.1.e.	Reduce energy demand in County-owned buildings by capturing "daylighting" opportunities.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.C.i.f. Conservation and Open Space Element Action 16.c.1.f.	Collaborate with owners of leased buildings to audit and benchmark energy use, retrofit for efficiency, and develop a preferred leasing agreement that incorporates energy-efficient practices.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.C.ii.b. Conservation and Open Space Element Action 16.C.2.b.	Ensure that HVAC and lighting systems in County-owned and -leased buildings are operating as designed and installed.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.C.ii.c.	Continue to use energy management software to	Mono County Resource Efficiency Plan	☐ Project Complies ☐ Not Applicable	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Conservation and Open Space Element Action 16.C.2.c.	monitor real-time energy use in County-owned and -leased buildings to identify energy usage patterns and abnormalities.	County General Plan	☐ Project Does Not Comply	
Action CO.1.C.ii.d. Conservation and Open Space Element Action 16.C.2.d.	Install motion sensors, photocells, and multi-level switches to control room lighting systems in County-owned and -leased buildings.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.C.ii.e. Conservation and Open Space Element Action 16.C.2.e.	Encourage utility providers to install smart meters on County-owned buildings.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Water Conservation Practices				
Action CO.6.A.i.c. General Plan Conservation and Open Space Element Action 3.C.1.c.	Encourage new residential and commercial construction and new County facilities to exceed CALGreen water conservation requirements.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.6.A.i.f. Conservation and Open Space	Ensure applicable projects comply with the Water Efficient Landscape Ordinance.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Element Action 3.C.3.a.				
Green Building Practices				
Conservation and Open Space Element Action 17.A.2.a.	Consider certification by a third-party rater to ensure all new County facilities and renovations of existing facilities comply with green building standards.	County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.2.A.ii.b. Conservation and Open Space Element Action 17.A.2.b.	Target meeting net-zero energy requirements or exceeding minimum Title 24 requirements for new County buildings and renovation of existing facilities.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Building Efficiency Standards – Title 24, Part 1 and 6	Complies with energy efficiency standards for residential, multifamily, and nonresidential buildings	California Energy Commission	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Cal Green Building Standards Code – Title 24, Part 11	Non-residential buildings comply with Chapter 5 – Nonresidential mandatory measures	California Building Standards Commission	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Renewable Energy				
Action CO.4.A.i.a	Pursue installation of solar photovoltaic systems,	Mono County Resource Efficiency Plan	☐ Project Complies	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Conservation and Open Space Element Action 11.A.1.a	power purchase agreements, or solar collective programs to meet all or part of the electrical energy requirements of County-owned or -leased buildings.		☐ Not Applicable ☐ Project Does Not Comply	
Transportation				
Action C.1.A.i.b. Regional Transportation Plan Objective 4.A.2.	Provide bicycle access to transit services along transit corridors and other routes that may attract bicyclists, such as routes providing access to visitor-serving locations.	Mono County Resource Efficiency Plan Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action C.1.A.ii.d. Regional Transportation Plan Objective 4.B.4.	When alternative-fuel infrastructure (such as electric vehicle charging stations) is installed for County government use, ensure public access and use is considered in the design and operation of such facilities.	Mono County Resource Efficiency Plan Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action C.1.A.iii.c. Regional Transportation Plan Objective 4.C.4.	Construct bicycle stations for employees that include bicycle storage, showers, and bicycle repair space.	Mono County Resource Efficiency Plan Regional Transportation Plan		

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Action C.1.A.iii.d. Regional Transportation Plan Objective 4.C.5.	Consolidate offices that community members often visit at the same time (such as building permitting and environmental health permitting).	Mono County Resource Efficiency Plan Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action C.1.A.iv.b. Regional Transportation Plan Objective 4.D.2.	Consider installation of electric vehicle charging stations at public facilities, such as at parking lots and airports, for community use.	Mono County Resource Efficiency Plan Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action C.1.A.iv.d. Regional Transportation Plan Objective 4.D.5.	Encourage new commercial- and visitor-serving projects to include electric vehicle charging stations in parking areas.	Mono County Resource Efficiency Plan Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	

Notes:

[1] This table reflects General Plan policies, regulations, and standards applicable to greenhouse gas reduction at the time of the 2022 Resource Efficiency Plan Update. This greenhouse gas checklist may be updated by the County in the future to reflect changes in ordinances, policies, or regulations that would reduce greenhouse gas emissions.

Appendix B

MONO COUNTY PLANNING DEPARTMENT

Greenhouse Gas Compliance Checklist

Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: _____

Project name: _____ **Case No**: _____

Project address, block, and lot: _____

Compliance Checklist Prepared By: _____ **Date:** _____

Brief Project Description:

_____

_____

_____

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with a policy or regulation may be determined to be inconsistent with Mono County's Resource Efficiency Plan, although compliance with most regulations is not optional. (See next page)

Appendix B

Greenhouse gas checklist – private development projects

Table 1 Regulations Applicable to Private Development Projects[1]

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Energy Efficient Measures and Practices				
Action CO.1.B.ii.a. Conservation and Open Space Element Action 16.B.2.a	Promote installation of variable frequency drive water pumps to serve existing residential buildings.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.B.ii.b. Conservation and Open Space Element Action 16.B.2.b.	Encourage voluntary upgrades of residential and nonresidential HVAC systems.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.1.B.ii.c Conservation and Open Space Element Action 16.B.2.c.	Encourage energy audits and voluntary retrofits for residential and nonresidential buildings at the time of sale or major renovation (>50% of building square footage, or addition of >500 square feet).	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Water Conservation Practices				
Policy CO.6.A.i. Conservation and Open Space Element Action 3.C.1.b.	Encourage reduced water consumption in residential and nonresidential properties.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Action CO.6.A.i.c. General Plan Conservation and Open Space Element Action 3.C.1.c.	Encourage new residential and commercial construction and new County facilities to exceed CALGreen water conservation requirements.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.6.A.i.f. Conservation and Open Space Element Action 3.C.3.a.	Ensure applicable projects comply with the Water Efficient Landscape Ordinance.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Action CO.6.A.ii.a Conservation and Open Space Element Action 4.A.8.a.	Promote low-impact development solutions (see General Plan Appendix B) for stormwater management on private property, such as rain gardens, green roofs, and detention ponds.	Mono County Resource Efficiency Plan County General Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Transportation				
Action C.1.A.i.f. Regional Transportation Plan Objective 4.A.6	Encourage the installation of bicycle rack, showers, and/or other amenities as part of new commercial development projects to promote bicycle use by employees and residents.	Mono County Resource Efficiency Plan Mono County Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
Regional Transportation Plan Objective 4.D.5	Encourage new commercial and visitor-serving projects to include electric vehicle charging stations in parking areas.	Mono County Regional Transportation Plan	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Wood Burning				
Great Basin Unified Air Pollution Control District Rule 431 And General Plan Land Use Elementa Action 6.C.1.a.	Wood burning fireplaces and other wood burning appliances are certified by the US Environmental Protection Agency. Wood burning fireplaces not certified by USEPA are prohibited from being installed in Alpine, Mono and Inyo Counties after January 1, 2007. Require all woodstoves installed in the area to be certified EPA Phase II, in conformance to policies in the Conservation/Open Space Element.	Rule 430 Particulate Emissions. Adopted 12/04/06 County General Plan adopted 2015	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	
Building Standards				
Building Efficiency Standards – Title 24, Part 1 and 6	Complies with energy efficiency standards for	California Energy Commission	☐ Project Complies ☐ Not Applicable	

Appendix B

Regulation or Policy	Requirements	Source	Project Compliance	Remarks
	residential, multifamily, and nonresidential buildings		☐ Project Does Not Comply	
Cal Green Building Standards Code – Title 24, Part 11	Residential buildings comply with Chapter 4 – Residential Mandatory Measures. Non-residential buildings comply with Chapter 5 – Nonresidential mandatory measures	California Building Standards Commission	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	

Notes:

[1] This table reflects General Plan policies, regulations, and standards applicable to greenhouse gas reduction at the time of the 2022 Resource Efficiency Plan Update. This greenhouse gas checklist may be updated by the County in the future to reflect changes in ordinances, policies, or regulations that would reduce greenhouse gas emissions.

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TECHNICAL MEMORANDUM

VMT THRESHOLDS & PROCEDURES FOR MONO COUNTY

DATE: December 18, 2021

TO: Kristen Cushman | EcoShift

FROM: Jim Damkowitch | DKS Associates

SUBJECT: Mono County SB 743 Implementation –Draft VMT Analysis Procedures Project 21667-000

EXECUTIVE SUMMARY

The Senate Bill (SB) 743 legislation specified that the Governor's Office of Planning and Research (OPR) prepare guidelines for the implementation of SB 743 for environmental clearance of discretionary land use and infrastructure projects under the California Environmental Quality Act (CEQA). Guidance regarding the changes to CEQA initiated by SB 743 is contained in the following documents:

- CEQA Guidelines Revisions: Revisions to the CEQA Guidelines were adopted into CEQA in December 2018 through a formal process conducted by the Natural Resources Agency. Additional changes can only be made through a future CEQA update process.
- Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR's Technical Advisory) released in December 2018.

While OPR's Technical Advisory provides recommendations on many aspects of conducting a CEQA transportation analysis using VMT, it does provide latitude for lead agencies to determine several key analysis decisions based on local conditions and data. The VMT thresholds and screening criteria described herein were informed by OPR's Technical Advisory and tailored to the specific context for Mono County. The change to VMT as the basis for transportation impacts is new to all jurisdictions and agencies in California. As such, Mono County should recognize that these guidelines can be refined over time to reflect new data and information from public and private stakeholders.

PROJECTS EXEMPT FOR NON-VMT REASONS

There are some non-VMT related CEQA principles that can be applied to certain projects to eliminate the need for VMT analysis. These include the following:

- The project is exempt from CEQA

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- The decision required for the project is not discretionary
- The County's discretionary approval does not involve transportation issues, such as design review

The County will consider whether a project meets these or other non-VMT CEQA principles on a case-by-case basis.

Another possibility is when a project was already analyzed in a prior certified CEQA document, including an EIR. CEQA documents that were certified prior to July 1, 2020 do not require a supplemental CEQA analysis of VMT solely based on the fact that there are new CEQA regulations regarding VMT. However, if there are substantial changes to the project analyzed in the certified CEQA document, then the County will determine if the change in the project results in a significant VMT impact resulting in the need for a supplemental analysis using the following guidance:

- If the proposed use meets any of the VMT screening criteria described herein, no VMT analysis is required.
- If the proposed use does not meet any of the VMT screening criteria described herein and the prior certified EIR includes an SB 743 compliant VMT analysis the applicant may opt to perform either (1) a net VMT change assessment (i.e., VMT difference between the previously approved project and the proposed land use change). If the land use change results in lower or equal total VMT than the previously approved project, then no supplemental analysis in a new CEQA document would be required. If the land use change results in a greater VMT than the previously approved project, then a determination of whether this impact is significant under County standards will be made. If the impact is less than significant, analysis in a supplemental CEQA document will not be required. If the impact is potentially significant, then a VMT analysis in a supplemental CEQA document will be required.
- If the proposed use does not meet any of the VMT screening criteria described herein and the prior certified EIR does not include a SB 743 compliant VMT analysis – a full VMT analysis would be required.
- When a certified EIR requires supplemental CEQA analysis of a non-transportation related environmental issue. It is recommended that the County's legal counsel review and provide direction in these cases. These situations will be addressed on a project-by-project or case-by-case basis.

When a certified EIR requires supplemental CEQA analysis for a project, there is a presumption against requiring VMT analysis as part of that supplemental review unless the County's legal counsel determines VMT analysis is required based on CEQA case law or standards in effect at that time.

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RECOMMENDED THRESHOLDS AND SCREENING CRITERIA

While OPR's Technical Advisory provides recommendations on many aspects of conducting a CEQA transportation analysis using VMT, OPR's guidance is not comprehensive and some key decisions are left for lead agencies to determine. The Technical Advisory is not formally included in CEQA and can be revised by OPR at any time without going through a formal process. Updated versions of the Technical Advisory are expected to be issued by OPR as new information becomes available and as California agencies gain experience in applying SB 743 to actual projects.

Although OPR's Technical Advisory provides a substantial amount of information on how to conduct a VMT analysis under CEQA, additional work is needed at the local level, either through an overall guidance document or on a case-by-case basis as individual studies are conducted. The Technical Advisory provides statewide guidance based on evidence collected by OPR that can be refined or modified by local agencies with appropriate justification and substantial evidence. The Technical Advisory suggests various thresholds for the significance of VMT impacts but does not require the use of a particular threshold. Lead agencies have discretion to select their preferred significance thresholds and could choose to use the thresholds suggested in the Technical Advisory or develop alternative thresholds.

The recommended SB 743 VMT screening criteria for Mono County are listed in **Table ES-1**. Recommended VMT thresholds are listed in **Table ES-2**. Maps showing VMT/capita rates (for residential developments) and VMT/employee rates (for non-residential developments) by Census Block Group relative to the countywide average less Mammoth Lakes are presented in **Figure ES-1** and **Figure ES-2** respectively. Block Groups shaded green are considered to be VMT efficient areas for either residential or non-residential the land uses respectively.

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TABLE ES-1 SCREENING CRITERIA FOR CEQA TRANSPORTATION ANALYSIS

TYPE	SCREENING CRITERIA
Located in a VMT Efficient Area (see green areas in Figures ES-1 and ES-2)	• Residential project located in an area where VMT/Capita is 15% or more below the base year countywide average less Mammoth Lakes • Office/Business Professional Employment project located in an area where VMT/Employee is 15% or more below the base year countywide average less Mammoth Lakes • Industrial project located in an area VMT/Employee is at or below the base year countywide average less Mammoth Lakes[1]
Small Projects	• Generates less than 237 daily unadjusted trip ends
Proximity to Transit	• Located within ½ a mile of an existing or planned major transit stop or an existing stop along a high-quality transit corridor[2,3]
Retail/Recreational/	• 200,000 square feet of total gross floor area or less • A retail project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area.
Local-Serving Public Facilities	• 200,000 square feet of total gross floor area or less • A quasi-public facility project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area.
Affordable Housing	• 100% affordable units based on County criteria
Mixed Use Project	• Project's individual land uses should be compared to the screening criteria above
Redevelopment Project	• Proposed project's total project VMT is less than the existing land use's total VMT

[1] Heavy-duty truck VMT would not be counted against Industrial/Warehouse projects, only employee-oriented commuter VMT.

[2]Situations where the project footprint is partially within the ½ buffer will be addressed by the County on case-by-case, project-by-project basis.

[3] Major transit stop means a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours").

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TABLE ES-2 VMT THRESHOLDS OF SIGNIFICANCE FOR DEVELOPMENT PROJECTS

LAND USE TYPE	THRESHOLD FOR DETERMINATION OF A SIGNIFICANT VMT IMPACT[1]
Residential	15% below Baseline Countywide Average of VMT/Capita Less Mammoth Lakes VMT/Capita: 29.1 .85 = **24.8 VMT/Capita**
Office / Business / Warehouse / Manufacturing	15% below Baseline Countywide Average of VMT/Employee Less Mammoth Lakes VMT/Employee: 11.95 x .85 = **10.2 VMT/Employee**
Industrial[2]	VMT/Employee is at or below the base year countywide average less Mammoth Lakes = **11.95 VMT/Employee**
Retail	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Hotel/Motel	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Recreational	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Medical/Hospital	No net increase in total Countywide VMT Less Mammoth Lakes (net VMT change)
Public Facilities	Does not contain regional public uses
Mixed Use	Analyze each land use individually per above categories and evaluate independently
Redevelopment	Apply the relevant threshold based on proposed land use

Notes:

1. Projects that exceed these thresholds would have a significant impact under CEQA.
2. Heavy-duty truck VMT would not be counted against Industrial/Warehouse projects, only employee-oriented commuter VMT.

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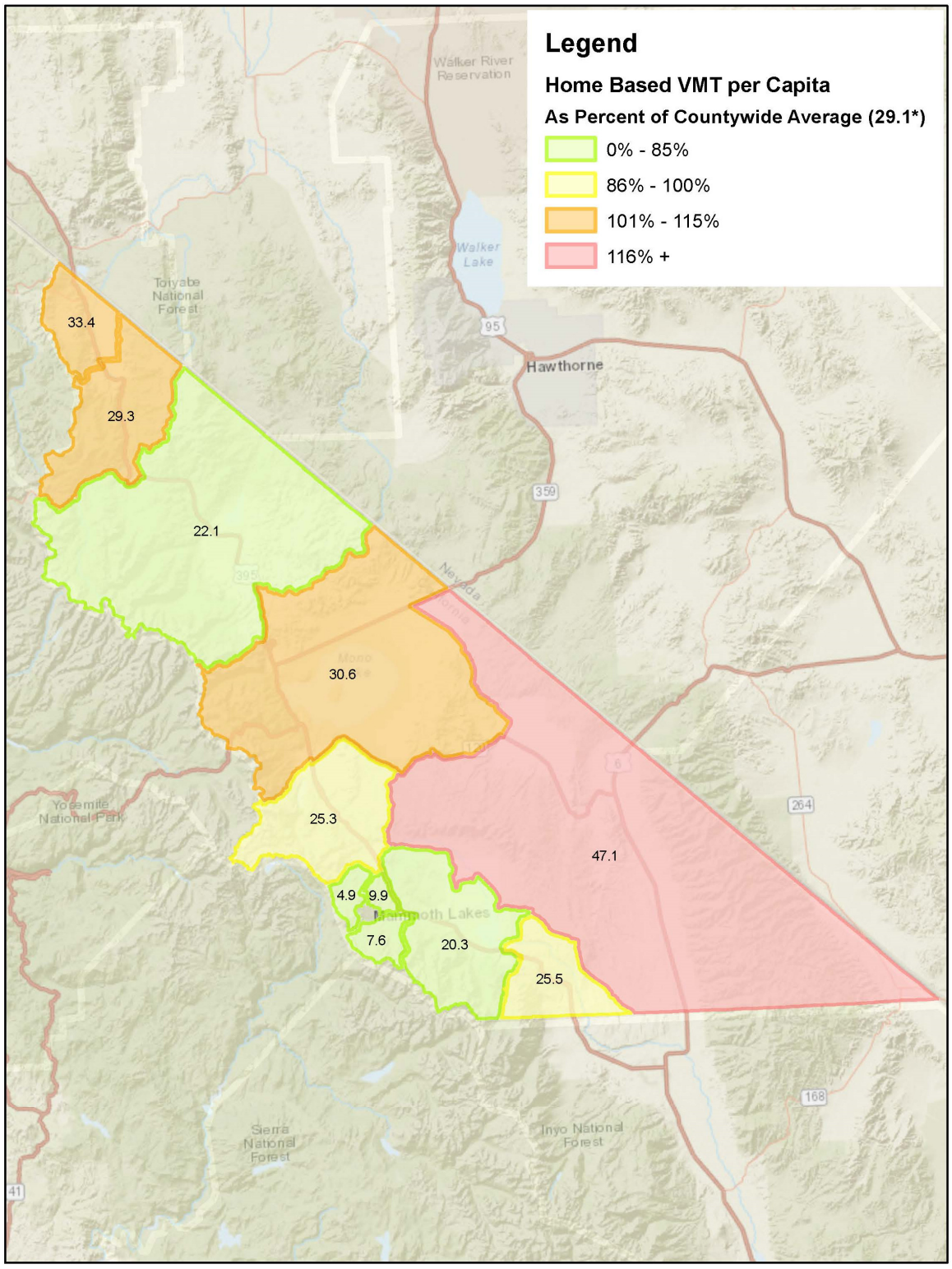
FIGURE ES-1 VEHICLE MILES TRAVELED PER CAPITA BY TAZ: COUNTYWIDE AVERAGE



Note * Countywide Average Excludes CSTDM TAZ 3023 (Mammoth Lakes)

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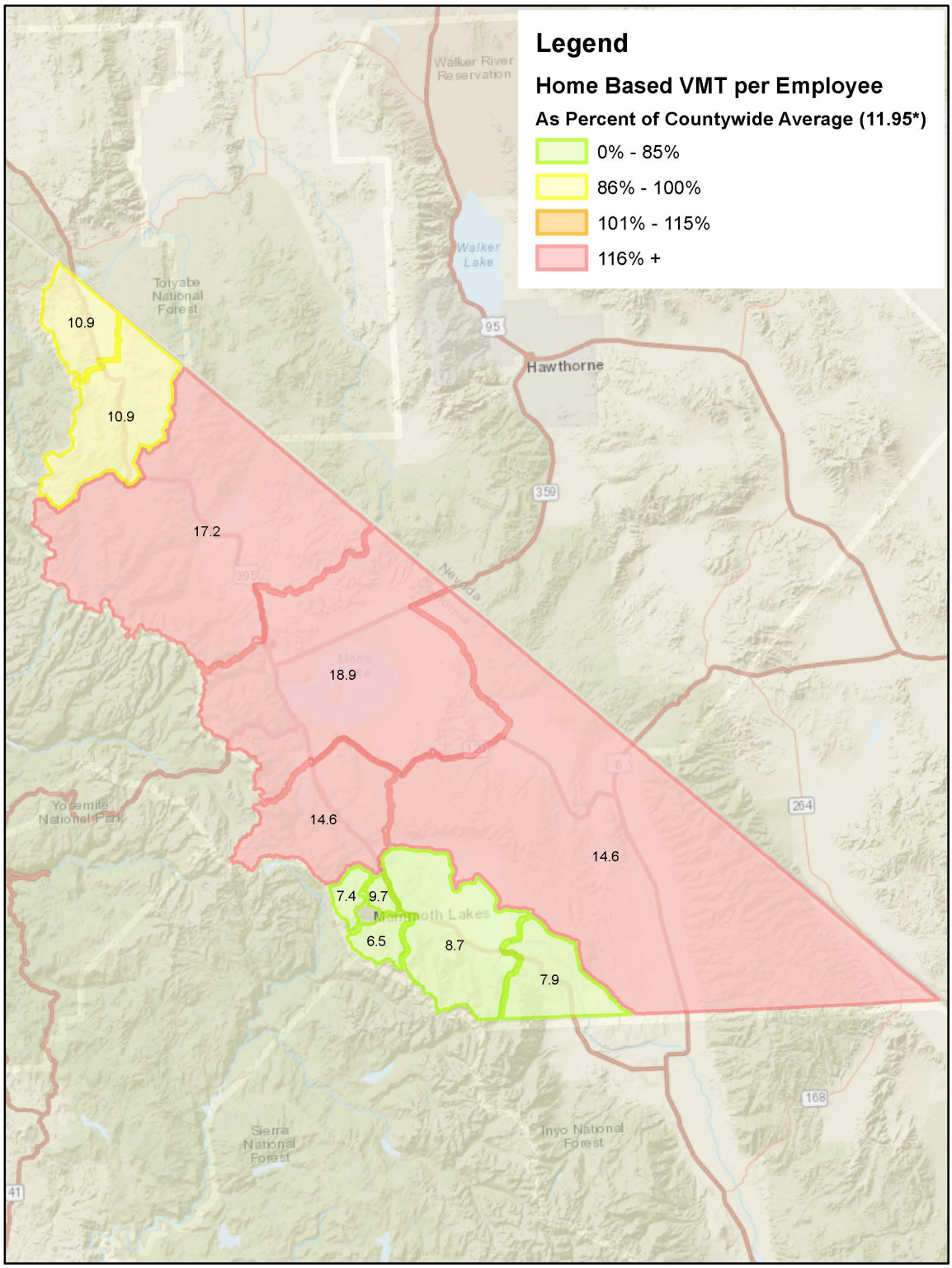
FIGURE ES-2 VEHICLE MILES TRAVELED PER EMPLOYEE BY TAZ: COUNTYWIDE AVERAGE



Note * Countywide Average Excludes CSTDM TAZ 3023 (Mammoth Lakes)

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BACKGROUND AND INTRODUCTION

In accordance with Senate Bill 743 (SB 743) and the resulting changes to the California Environmental Quality Act (CEQA) Guidelines published by the Natural Resources Agency, local agencies may no longer use measures of vehicle delay such as Level of Service (LOS) to quantify transportation impacts on the environment. While agencies may continue to maintain LOS standards and similar measures as a matter of local policy and for project analysis, Vehicle Miles Traveled (VMT) has been codified in the CEQA Guidelines as the most appropriate measure for measuring transportation impacts under CEQA. This change applies statewide as of July 1, 2020.

The change from LOS to VMT for CEQA purposes requires the County to revise its process and guidelines, which now must address VMT thresholds of significance, screening, and mitigation procedures.

The purpose of this memorandum is to:

- document guidance, options, resources, and analytical methodologies for evaluating VMT in Mono County; and,
- document the County's recommended VMT thresholds, project screening criteria, and mitigation strategies

The information and recommendations detailed in this memorandum draws heavily on technical guidance published by the Governor's Office of Planning and Research (OPR) and an evaluation of greenhouse gas and VMT mitigation strategies from the California Air Pollution Control Officers Association (CAPCOA). These documents are described in the following section and listed in the References section.

LEGISLTATIVE BACKGROUND

Senate Bill (SB) 743 was signed into law in 2013, with the intent to better align California Environmental Quality Act (CEQA) practices with statewide sustainability goals related to efficient land use, greater multi-modal choices, and greenhouse gas reductions. The provisions of SB 743 become effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS) will no longer be considered an environmental impact under CEQA. Instead, impacts will be determined by changes to VMT.

VMT measures the number and length of vehicle trips made on a daily basis:

$$\text{VMT} = \sum (\text{Volume (vehicles/day)} * \text{Segment Length (miles)})$$
$$\text{(for all segments in the geographic area)}$$

VMT is a systemic metric and is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit.

It should be noted that VMT is not a good indicator of congestion nor is it useful for identifying hot-spot locations or infrastructure deficiencies. Operational analyses may still be required by the County of Mono (called Local Traffic Study) to make General Plan consistency findings that will potentially inform project conditions of approval through the entitlement process. However, findings of a Local Traffic Study will not be used to inform CEQA traffic impacts.

Measuring VMT requires estimating or measuring the full length of vehicle trips by purpose, such as commutes, deliveries, or shopping trips that often cross between cities, counties, or states. For this reason, regional travel demand models, "big data," and household travel surveys that are less limited by local agency boundaries are useful tools to estimate VMT for SB 743 applications.

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH (OPR) TECHNICAL ADVISORY

In December 2018, OPR released its final Technical Advisory on Evaluating Transportation Impacts in CEQA. Generally, OPR recommends that a reduction of 15% or more in VMT should be the target. Below is a summary of OPR's recommended VMT impact thresholds and methodologies for land use projects:

Residential (VMT/capita) – A proposed project exceeding a level of 15% below existing regional VMT per capita may indicate a significant transportation impact.

Office (VMT/employee) - A proposed project exceeding a level of 15% below existing regional VMT per employee may indicate a significant transportation impact.

Retail (net VMT) – A proposed project that results in a net increase in total area VMT may indicate a significant transportation impact.

Mixed-Use - Evaluate each component independently using above thresholds.

Redevelopment Projects - Measured based on net change in VMT for total area.

Infrastructure Projects (net VMT) – A proposed project that results in a net increase in total area VMT may indicate a significant transportation impact.

The OPR recommended thresholds for residential and office are expressed on a per capita or per employee basis. This essentially normalizes for development size. For example, a 10,000 sq.ft. office development can yield the same VMT per employee result as a 100,000 sq.ft. office development. Though the absolute amount of VMT and traffic generated by the 100,000 sq.ft. office project will be significantly greater, it would be considered equally as efficient as the 10,000 sq.ft. development. Project size is partially addressed through OPR's screening thresholds described below.

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OPR RECOMMENDED SCREENING THRESHOLDS

OPR's Technical Advisory lists the following screening thresholds for land use projects. OPR's Technical Advisory suggests that lead agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing as described below.

- Projects that are consistent with the Sustainable Communities Strategy (SCS) or General Plan and generate or attract fewer than 110 daily trips (consistent with trip generation associated with projects eligible for a Categorical Exemption under CEQA).
- Map-based screening for residential and office projects located in low VMT areas, and incorporate similar features (density, mix of uses, transit accessibility).
- Certain projects within ½ mile of an existing major transit stop[1] or an existing stop along a high-quality transit corridor[2]. However, this will not apply if information indicates that the project will still generate high levels of VMT.
- Affordable Housing Development in infill locations.
- Locally serving retail projects, typically less than 50,000 square feet.

CALTRANS VMT-FOCUSED TRANSPORTATION IMPACT STUDY GUIDELINES

Caltrans has published an update of their Transportation Impact Study Guidelines (TISG, May 2020). The Caltrans' TISG is intended for use in preparing a transportation impact analysis of land use projects or plans that may impact or affect the State Highway System.

The TISG heavily references OPR's Technical Advisory as a basis for its guidance. The TISG recommends use of OPR's recommended thresholds for land use projects (15% below existing countywide or regional VMT per capita or per employee). As each lead agency develops and adopts its own VMT thresholds for land use projects, Caltrans will review them for consistency with OPR's recommendations, and with the state's GHG emissions reduction targets and the California Air Resources Board Scoping Plan.

Caltrans identifies a possible mitigation framework for projects found to have a potentially significant impact on VMT. These include the following programmatic measures:

- Impact fee programs that contain a demonstrated nexus and proportionality between a fee and capital projects that result in VMT reduction;

[1] "major transit stop" - A major transit stop is a "site containing an existing rail, a ferry terminal served by bus or rail transit service, or intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during morning and evening peak hour commute". (OPR 2018)
[2] Pub. Resources Code, § 21155 a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

- VMT mitigation bank programs; and,
- VMT mitigation exchange programs.

Caltrans also indicates that a future update to the TISG will include the basis for requesting transportation impact analysis that is not based on VMT (including multimodal conflict/access management issues).

CALTRANS DRAFT TRANSPORTATION ANALYSIS UNDER CEQA (TAC) AND TRANSPORTATION ANALYSIS FRAMEWORK (TAF)

Caltrans has also published additional documents related to SB 743 implementation. The draft Transportation Analysis Under CEQA (TAC) identifies the State's preferred approaches for analyzing VMT under CEQA for projects on the State Highway System. The draft Transportation Analysis Framework (TAF) is for transportation projects on the state highway system and addresses how to perform induced travel analysis. The TAF refers to OPR's Technical Advisory for the list of highway projects "that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis". TAC Screening:

> *"The use of VMT as the CEQA transportation metric will, for the most part, impact only capacity increasing projects. For other types of transportation projects, CEQA does not require a VMT impacts analysis beyond the screening process. Generally, there are two reasons such an analysis is not warranted. The first is because the type of project is expected to decrease or have no impact on VMT. The second is because the project's VMT impacts have already been analyzed and, when necessary, mitigated to the extent feasible in an earlier CEQA document; thus, the analysis may "tier" from or otherwise rely on that earlier analysis."*

ANALYSIS PROCEDURES

To develop Mono County's VMT Thresholds two primary data and modeling resources were applied: 1) the California Statewide Travel Demand Model (CSTDM); and 2) the Longitudinal Employment and Household Dynamic (LEHD) journey to work data.

In order to reflect the trip length characteristics of the unincorporated county only, VMT metrics were assessed at the countywide level less City of Mammoth Lakes. Both a per capita and per employee VMT baseline averages were developed. These baseline average VMT estimates will be the measuring stick that all future projects will be compared against. In addition, a net VMT change resulting from retail development was also performed using ArcGIS Network Analysist Tool.

CALIFORNIA STATEWIDE TRAVEL DEMAND MODEL (CSTDM)

The California Statewide Travel Demand Model (CSTDM) was utilized to estimate trip-based Work and Residential Baseline VMT for the unincorporated areas of Mono County. The CSTDM is a traditional 4-Step travel demand model that runs in the CUBE software platform. The model generates trips based on the land uses and where people will live, work, study and shop, taking into account forecasted population growth. The model generates and tracks trip types by all modes originating or ending in each TAZ within Mono County as well as all trips from or into outside counties. However, the CSTDM is limited to the state of California and truncates intercounty trips between Mono County and Nevada. Hence the full-trip length of these inter-state trips is not captured. The CSTDM output used to inform this analysis can be accessed at:

https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling/sb-743-vmt-impact-assessment

The CSTDM includes a 2010 base year which was utilized to estimate baseline VMT for Mono County. To estimate trips associated with residential VMT, all Home-Based vehicular trips (HB) internal to Mono County were selected for evaluation of VMT per capita. To estimate trips associated with work VMT, only Home-Base-Work (HBW) vehicular trips were selected for evaluation. The CSTDM reflects Mono County using three Traffic Analysis Zones (TAZs) as shown in **Figure 1**. The CSTDM TAZs conform to the Census Tracts (101, 102, and 103) boundaries are a further disaggregated into 11 Block Groups – 11 of which represent the unincorporated county as shown in **Figure 2**.

LONGITUDINAL EMPLOYMENT AND HOUSEHOLD DYNAMIC (LEHD) DATA

Longitudinal Employment and Housing Dynamic (LEHD) journey-to-work data was applied to refine the CSTDM VMT output from the TAZ level to the Block Group level for finer granularity. LEHD origin-destination trip data was imported into ArcGIS and assigned onto the roadway network using the Network Analyzer Tool in ArcGIS. Based on shortest-path assignment, trips were assigned onto the network to compute VMT. The LEHD VMT results for the 11 Block Groups was then used to bi-proportionally adjust the CSTDM 3 TAZ results to reflect the 11 Block Groups as well as capture the full trip length for intercounty trips with Nevada trips.

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FIGURE 1 CALIFORNIA STATEWIDE TRAVEL DEMAND MODEL MONO COUNTY TAZ STRUCTURE

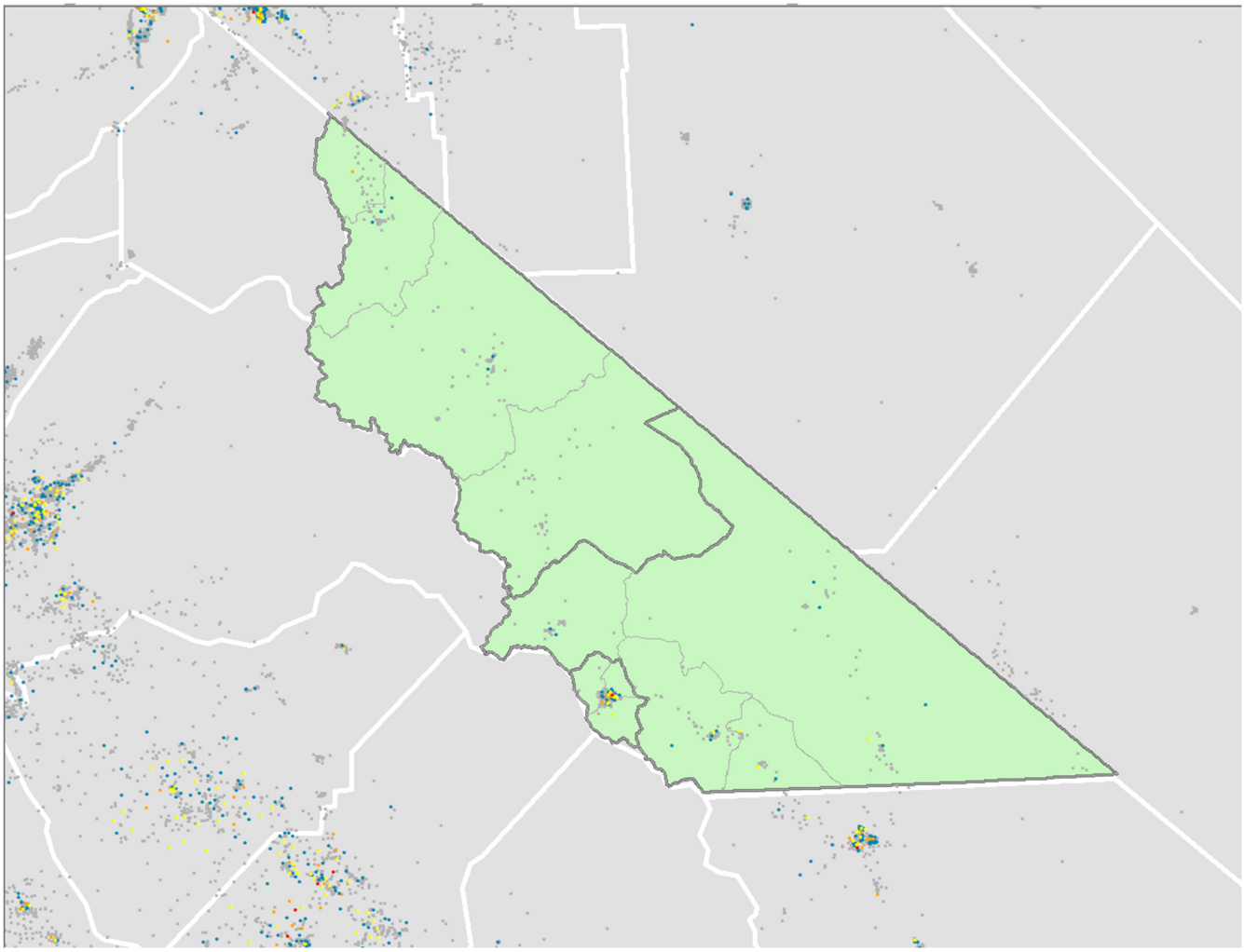

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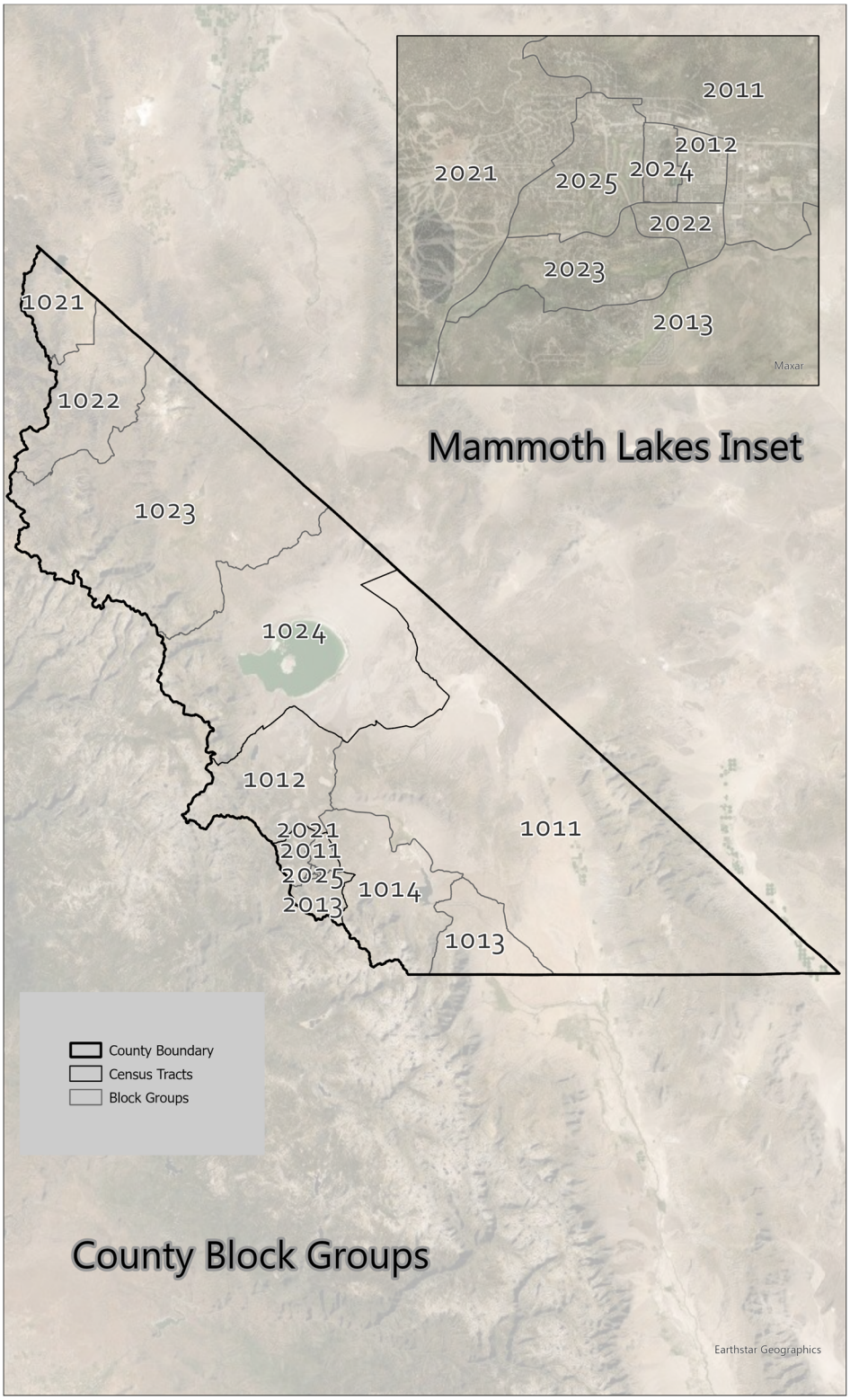
FIGURE 2 MODEL MONO COUNTY CENSUS TRACT STRUCTURE



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PROPOSED VMT THRESHOLDS OF SIGNIFICANCE

RESIDENTIAL AND NON-RESIDENTIAL PROJECTS

Consistent with the OPR Technical Advisory, Mono County assessed land development projects according to the primary proposed land use type, as follows:

Residential VMT – Establish baseline VMT and threshold on a per capita basis. "Residential" uses include, but are not limited to, single-family, multi-family, and mobile homes.

The recommended thresholds are 85 percent of the existing baseline VMT per land use unit (per capita), as calculated for Mono County for residential (SFDU, MFDU), uses. This recommendation is consistent with OPR guidance.

Work VMT – Establish baseline VMT and threshold on a per employee basis. "Work" uses include, but are not limited to, office, office parks, warehousing, manufacturing, and business parks.

The recommended thresholds are 85 percent of the existing baseline VMT per land use unit (per employee), as calculated for Mono County for work (office, commercial, manufacturing), uses. This recommendation is consistent with OPR guidance.

Industrial Projects – For industrial uses (i.e., light industrial, industrial) the CEQA guidelines specify that the VMT to be considered when analyzing transportation impacts is passenger vehicle VMT. Heavy-duty truck trips (3+ axles), often the predominant type at industrial facilities, would not come into play as a transportation impact (although they would be considered under noise or air quality). Instead, industrial land uses may have to be analyzed on a case-by-case basis to determine the net passenger vehicle (light-duty) VMT impacts of proposed projects. If employee travel is the predominant source of light duty trips at a facility, this component could be assessed against the equivalent VMT per employee threshold for Work VMT. However, for industrial uses, it is recommended that if the project's VMT/employee is at or below the base year county-wide average VMT/employee it would be screened.

The recommended threshold is no net increase above the existing baseline VMT per employee, as calculated for Mono County for work (office, commercial, manufacturing), uses. This recommendation generally consistent with OPR guidance which does not proscribe the 85 percent of baseline recommendation for industrial uses.

Mixed Use Projects - For mixed use projects, OPR recommends either analyzing each component of the proposed project separately or focusing on the predominant land use. This recommendation is consistent with OPR guidance.

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OTHER NON-RESIDENTAL PROJECT TYPES

Many types of non-residential land uses function as "converging" facilities (i.e., facilities that the public travels to for goods and services). These types of facilities generally do not generate new trips but serve to redistribute trips that would have occurred regardless. This assume that the goods and services provided by the facility are available elsewhere in Mono County and that the facility provides "redundant" market coverage for potential demand. This includes retail and commercial uses, health facilities, recreational uses, public facilities/services (e.g., library) and others. To assess the anticipated net VMT change resulting from "adding" these land use types within Mono County an analysis was performed in ArcGIS using the Network Analyzer Tool. An Unconstrained Capacity Location Allocation analysis was performed that yields the net VMT associated with shortest path assignment of the countywide population to the nearest facility for each Block Group in the county. The analysis steps were as follows:

- Imported roadway network into ArcGIS;
- Established a geographic centroid and network connector for each Block Group;
- Established population attributes (ACS 2019 data) for each Block Group centroid in ArcGIS;
- Using web-based mapping tools identified and pinned locations that currently have a "like" retail facility and denote in ArcGIS as a node attribute;
- Using the Network Analyzer Tool – optimally assign all nodes to their nearest "like facility" with and without adding a "new" retail facility. Record total VMT (VMT defined as the sum of assigned Pop x Centerline Miles of Shortest Path to Facility); and,
- Repeat for every Block Group in Mono County.

Table 1 shows the relative VMT totals for each Block Group from adding a new retail facility. As shown, a facility in Block Group 1011 results in a decrease in VMT from 189,657 to 155,378. The green highlighted cells indicate the most efficient Block Group location for reducing travel access distance to a new retail facility. For example, Block Group 1023 benefits from new facilities in many locations but has the best improvement within its own Block Group 1023. Some Block Groups don't benefit from any of the locations (i.e., the Block Group/s representing the City of Mammoth Lakes).

TABLE 1. VMT CHANGE RESULTING FROM NEW RETAIL BY BLOCK GROUP

		Reduced Travel Access Distance to Nearest Facility by Block Group																
Facility Location	Total VMT	1023	2001	2003	2005	2006	2007	1021	1022	1011	1012	2002	2008	1024	2009	1013	2004	1014
No Facility (Baseline	189,658																	
Facility In 1011	155,379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-23.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Facility In 1022	122,052	-32.1	0.0	0.0	0.0	0.0	0.0	-21.5	-36.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Facility In 1024	161,827	-28.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.3	0.0	0.0	-28.7	0.0	0.0	0.0	0.0
Facility In 1023	136,239	-53.2	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	0.0	0.0	0.0	0.0	-17.2	0.0	0.0	0.0	0.0
Facility In 1013_1014	175,198	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.0	0.0	-4.1
Facility In 1012	169,947	-14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-17.1	0.0	0.0	-14.7	0.0	0.0	0.0	0.0
Facility In 2001_2009	187,571	0.0	0.0	0.0	0.0	-1.5	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	0.0	-0.5	0.0
Facility In 1021	126,394	-27.5	0.0	0.0	0.0	0.0	0.0	-26.1	-31.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* City of Mammoth Lakes

Retail – Based on this analysis, increasing retail opportunities in unincorporated Mono County will decrease overall VMT by providing intervening opportunities for goods and services that reduce the need for longer trips to Mammoth Lakes. Given the rural context of unincorporated Mono County, the analysis indicates that any new retail facility locating providing duplicate goods and services offered in the City of Mammoth Lakes would result in a net VMT decrease.

The recommended threshold is no net increase above the existing baseline VMT per employee, as calculated for Mono County for work (office, commercial, manufacturing), uses. This recommendation is consistent with OPR guidance.

Medical – It is recommended that medical projects be analyzed in terms of net VMT change in a manner similar to retail projects. As with retail, providing additional opportunities for healthcare may reduce the lengths of trips made for this purpose. By this line of reasoning, most freestanding clinics, medical practices, and nursing homes could be assumed less than significant with respect to VMT impacts. Larger or regional-serving facilities such as hospitals would likely require an environmental document. If office uses are included as part of the hospital project description the analysis should consider both employee VMT by applying the recommended thresholds are 85 percent of the existing baseline VMT per employee and patient care VMT by applying the net change threshold separately. This recommendation is consistent with OPR guidance.

Hotel / Motel Projects – For hotel/motel projects, the recommended threshold would be similar for regional-serving retail projects. Any increase in total VMT (i.e., net positive VMT change) that occurs as a result of the project would trigger a VMT impact. Determination of whether a given hotel/motel project is locally or regionally serving would be determined by the County on a case-by-case basis. This recommendation is consistent with OPR guidance.

Recreational Projects – The recommended threshold for recreational projects would be similar for regional-serving retail projects. Any increase in total VMT (i.e., net positive VMT change) that occurs as a result of the project would trigger a VMT impact. Determination of whether a given recreation project is locally or regionally serving would be determined by the County on a case-by-case basis. This recommendation is consistent with OPR guidance.

OTHER PROJECT TYPES

Infrastructure Projects - The OPR recommended threshold for vehicle capacity increasing projects is any increase in total VMT that occurs as a result of the project. The OPR technical advisory lists many transportation infrastructure project types as being VMT neutral (see Screening Procedures).

Land Use Plans - The recommended methodology for conducting VMT assessments for land use plans is to compare the existing VMT per capita and/or VMT per employee with the expected horizon year VMT per capita and/or VMT per employee of the land use plan. If there is a net increase in the VMT metric under horizon year conditions, then the project will have a significant impact. This recommendation is consistent with OPR guidance.

SCREENING PROCEDURES

Screening procedures play an important part in streamlining project analysis. First, projects may be presumed to have less than significant VMT impacts due to size, proximity to high quality transit, and housing affordability. Second, projects may be screened according to location. Projects located in areas that have been shown to generate VMT below the selected threshold of significance may be presumed to have less than significant impacts and no further analysis required.

SMALL PROJECTS

OPR advises that projects generating fewer than 110 trips per day could be presumed to have less than significant VMT impacts. However, given that rural context of Mono County, the small project screen daily trip generation is recommended to be 237 daily trips. This is consistent with the Project Size VMT screens in practice as adopted by Sacramento County and other jurisdictions in the Sacramento Region. Given that the OPR guidance is generally more applicable to urbanized counties, a 237 daily trip project size screen is considered reasoanble for the relatively low-population and rural context of Mono County. Note that the County reserves the authority to require a VMT analysis for discretionary land use projects that fall below the proposed project size screen if the project's VMT characteristics warrant concern.

Table 2 shows the maximum project size that would correspond to this threshold based on average ITE trip generation rates for selected land uses.

TABLE 2 PROJECT SIZE THRESHOLDS FOR VMT SCREENING
(GENERATION OF 237 OR FEWER DAILY TRIPS)

LAND USE	ITE CODE	SIZE THRESHOLD	DAILY TRIP GENERATION[1]
SINGLE FAMILY RESIDENTIAL	210	25 units	230
MULTIFAMILY RESIDENTIAL - LOW RISE	220	32 units	234
MULTIFAMILY RESIDENTIAL - MID RISE	221	43 units	234
MULTIFAMILY RESIDENTIAL - HIGH RISE	222	53 units	236
MID-RISE RESIDENTIAL WITH 1ST FLOOR COMMERCIAL	231	68 units	234
SMALL OFFICE BUILDING	712	14,650 square feet	237
SINGLE TENANT OFFICE BLDG.	715	21,000 square feet	237

Source: ITE Trip Generation 10th Edition (https://itetripgen.org/)
[1] ITE Trip Generation 11th Edition now in circulation. Updated rates my slightly differ than those used.

LOW INCOME HOUSING

As one of many strategies to address California's housing crisis, OPR advises that **residential projects consisting of 100 percent affordable units** may be presumed to have less than significant VMT impacts. This recommendation allows for residential projects that include a mix of market-rate housing units and non-market-rate housing units to only perform the project size screen and VMT analysis on only the proportion of units that are market-based. For example, if the project is 100 units with 10 affordable housing units, transportation VMT analysis would not be necessary for the 10 affordable units but would be necessary for the remaining 90 units (unless they meet one of the other screening criteria). For purposes of applying the small project screening criteria, the applicant would only include the trip generation for the non-affordable housing portion of the project (since the affordable housing portion is screened out).

LOCAL SERVING RETAIL AND QUASI PUBLIC FACILITIES

The OPR technical advisory gives 50,000 square feet for an individual retail establishment as a general guideline to distinguishing local from regional serving retail. Projects consisting of multiple spaces totaling more than 50,000 square feet might also be considered local serving retail if no single establishment is larger. For example, neighborhood centers, convenience oriented centers of up to 125,000 square feet leasable area and typically anchored by a supermarket could be considered local-serving.

For Mono County, a retail project, recreation project, medical facility, or quasi-public land use (i.e., converging facility) is assumed to be local-serving if it has a gross floor area no more than 200,000 square feet. Additionally, a public facility is considered locally serving if it serves the surrounding community or that is a passive use (such as communication and utility buildings, water sanitation, and waste management). A retail, recreation, medical, or quasi-public facility may also be defined as locally-serving if a market study demonstrates that it is based on the size of its market area. Adding retail square footage (even if it is less than the gross floor area listed above) to an existing "regional" retail shopping area should not be screened out.

A listing of land use types including public and quasi-public facilities are listed in **Table 3**.

Mixed Use Project Screening Considerations: The project's individual land uses should be compared to the screening criteria above. It is possible for some of the mixed-use project's land uses to be screened out and some to require further analysis. For purposes of applying the small project screening criteria, the applicant would only include the trip generation for portions of the project that are not screened out based on other screening criteria. For example, if a project includes residential and retail, and the retail component was screened out because it is locally serving; only the trip generation of the residential portion would be used to determine if the project meets the definition of a small project.

Redevelopment Project Screening Considerations: The project is a redevelopment project that demonstrates that the proposed project's total project VMT is less than the existing land use's total VMT. Exception: If a project replaces affordable housing (either deed restricted or other types of affordable housing) with a smaller number of moderate-income or high-income residential units, the project is not screened out and must analyze VMT impacts.

PROXIMITY TO TRANSIT

Section 15064.3 of the CEQA Guidelines specifies that residential or office projects within one-half mile of an existing major transit station or stop along an existing high-quality transit corridor can be presumed to have a less than significant transportation impact. According to OPR guidance and Public Resources Code § 21064.3, major transit stops are defined as a site containing an existing rail transit station or the intersection of at least two bus routes with a combined frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. High-quality transit corridors are defined as having fixed route bus service with service intervals no longer than 15 minutes during the peak commute hours.

Transit Priority Areas and High-Quality Transit Corridors No areas in the unincorporate areas of Mono County currently have the required bus headways or rail stations to qualify as transit priority areas. Provided they meet all other requirements, projects with the minimum residential densities within these areas can qualify as "transit priority projects" as defined in Public Resources Code Section 21155(b) that would be eligible for streamlined environmental review under CEQA. At such time as future transit enhancements increase bus frequencies sufficiently to meet the definition of "major transit stop" or "high-quality transit corridor" and requisite, additional programmatic environmental review has been completed, areas within the unincorporated areas of Mono County can become eligible for consideration as planning and transit priority areas.

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TABLE 3 LAND USE DESIGNATIONS FOR VMT SCREENING AND ANALYSIS

Land Use Designations for VMT Analysis
Residential (subject to the project size and VMT/capita screens)
Estate Residential (ER)
Low Density Residential (LD/LDR)
Low Density Cluster (LDC)
Medium Density Residential (MD/MDR)
High Density Residential (HDR)
Residential Mixed-Use (RMU) – residential prominent use
Residential Mobile Home (RMH)
Retirement/age-restricted housing
Residential care home/facility
Office/Business Professional Employment (subject to the project size and VMT/employee screens)
Business and Profession Office (BP)
Office Profession Mixed Use (OPMU) - office predominant use
Office Industrial Mixed Use (OIMU)
Hospital
Industrial Employment (subject to VMT/employee screen
Light Industrial (LI)
Light Industrial Business Park (LIBP)
Industrial Park (MP)
Light Industrial/Manufacturing (M-1)
Heavy Industrial/Manufacturing (M-2)
Retail / Recreation / Quasi-Public Facilities (Converging Demand Facilities) – subject to size and net VMT change screen
General Commercial (GC)
Commercial Mixed-Use (CMU) – commercial prominent use
Village Commercial/Center (VC)
Village Center Mixed Use
Local Town Center (LTC)
Regional Town Center (RTC)
Hotels and motels
Outdoor commercial recreation
Entertainment venues
Golf course
Hospital / Medical Campus etc.
Public K-12 schools (elementary school, middle school, and high school)
Day care center
Library
Post Office

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Land Use Designations for VMT Analysis
Public Facilities – Local Serving (automatically screened)
Neighborhood park
Open Space
Park
Police and Fire stations
Utility substations
Water sanitation and waste management facilities
Regional Public Facilities – May Not Be Local Serving – Case by Case Assessment
Airport
University/college
Community college
Private schools (elementary school, middle school, and high school)
Religious institutions
Clubs, lodges, and private meeting halls
Theaters and Auditoriums
Museum
Regional park

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INFRASTRUCTURE PROJECTS

Infrastructure projects that **would not likely lead to a substantial or measurable increase in vehicle travel**, and therefore generally should not require an induced travel analysis, include[3]:

- Rehabilitation, maintenance, replacement, safety, and repair projects including ITS field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide "refuge area," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length
- Intersection channelization (installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as turn pockets, turn lanes, or emergency breakdown lanes)
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase

[3] Final Technical Advisory on Evaluating Transportation Impacts in CEQA (Office of Planning and Research, December 2018)

- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas

PROJECT LOCATION SCREENING

The OPR technical guidance discusses screening of residential and office projects based on location. Residential and office projects that locate in areas with low VMT, and that incorporate similar features will also tend to generate similarly low VMT. Maps showing areas of Mono County that exhibit "low" VMT characteristics can be used to screen residential and office projects from needing to prepare a CEQA VMT analysis.

The base year 2010 California Statewide Travel Demand Model (CSTDM) was utilized to estimate baseline VMT for Mono County. The steps taken using the CSTDM to estimate trip-based "work-related" and "residential-related" baseline VMT for Mono County was based on following two baseline averages: 1) Countywide (including Mammoth Lakes); and, 2) Countywide less Mammoth Lakes. These are described below.

Selection of which baseline average best reflects the degree of geographic screening allowed for development is left to the County's discretion.

Summation Steps

1. Using CSTDM output from: https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling/sb-743-vmt-impact-assessment tally the row sum (production zone) of daily VMT for home-based work (HBW), home-based shop (HBS) home-based other (HBO), home-based school (HBSC) trip purposes.

2. Calculate Home-based VMT per capita by TAZ as the row sum (production zone) of VMT divided by population of selected TAZs.

3. Using CSTDM output from: https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/statewide-modeling/sb-743-vmt-impact-assessment tally the row sum (production zone) of daily VMT for the home-based work (HBW) trip purpose.

4. Calculate Home-based VMT per capita by TAZ as the row sum (attraction zone) of VMT divided by employees of selected TAZs.

The above steps were performed for two geographic areas: 1) Countywide (including the City of Mammoth Lakes); and, 2) Countywide less City of Mammoth Lakes.

AVERAGE VMT RATES PER CAPITA

Average daily VMT rates per capita calculated for the two geographies and using the methodology described above are shown below in **Table 4**.

TABLE 4. HOME-BASED VMT PER CAPITA – DAILY AVERAGE RATES BY GEOGRAPHY

GEOGRAPHY	AVG. DAILY VMT/CAPITA
COUNTY WTH MAMMOTH LAKE LAKES	17.6
COUNTY WITHOUT MAMMATH LAKES	29.1

AVERAGE VMT RATES PER EMPLOYEE

Average daily VMT rates per employee calculated for the three geographies and previously described methodology are shown provided in **Table 8**.

TABLE 8. HOME-BASED WORK VMT PER EMPLOYEE- AVERAGE DAILY RATES BY GEOGRAPHY

GEOGRAPHY	AVG. DAILY VMT/EMPLOYEE
COUNTY WTH MAMMOTH LAKE LAKES	9.73
COUNTY WITHOUT MAMMATH LAKES	11.95

Maps showing the VMT efficiency characteristics of each Block Group based on the Countywide with Mammoth Lakes VMT/capita and VMT/employee baseline averages is presented as **Figure 3**. Areas exhibiting VMT/capita or VMT/employee rates 85% of the county average are denoted as "green". Residential or non-residential projects located in "green" zones would be screened from performing a VMT analysis. As shown, most areas (i.e., Block Groups) would not be screened out based on location. Proposed developments in these areas would be required to perform a VMT analysis with most likely resulting in a significant impact. Conversely, maps showing the VMT efficiency characteristics of each Block Group based on the Countywide less Mammoth Lakes are shown in **Figure 4** and **Figure 5**. As anticipated, greater opportunities for location-based screening (i.e., exhibit up to 85%) would be afforded to the County using the less Mammoth Lakes baseline average.

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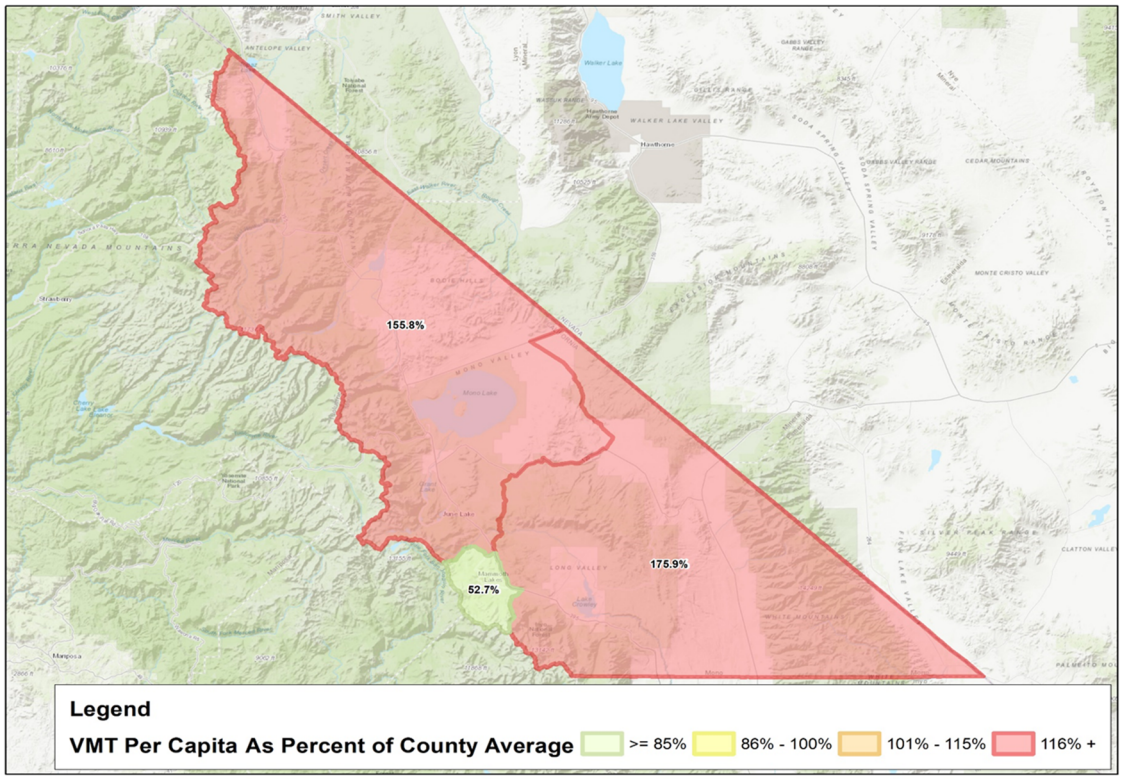
FIGURE 3 VEHICLE MILES TRAVELED PER CAPITA BY TAZ: COUNTYWIDE AVERAGE



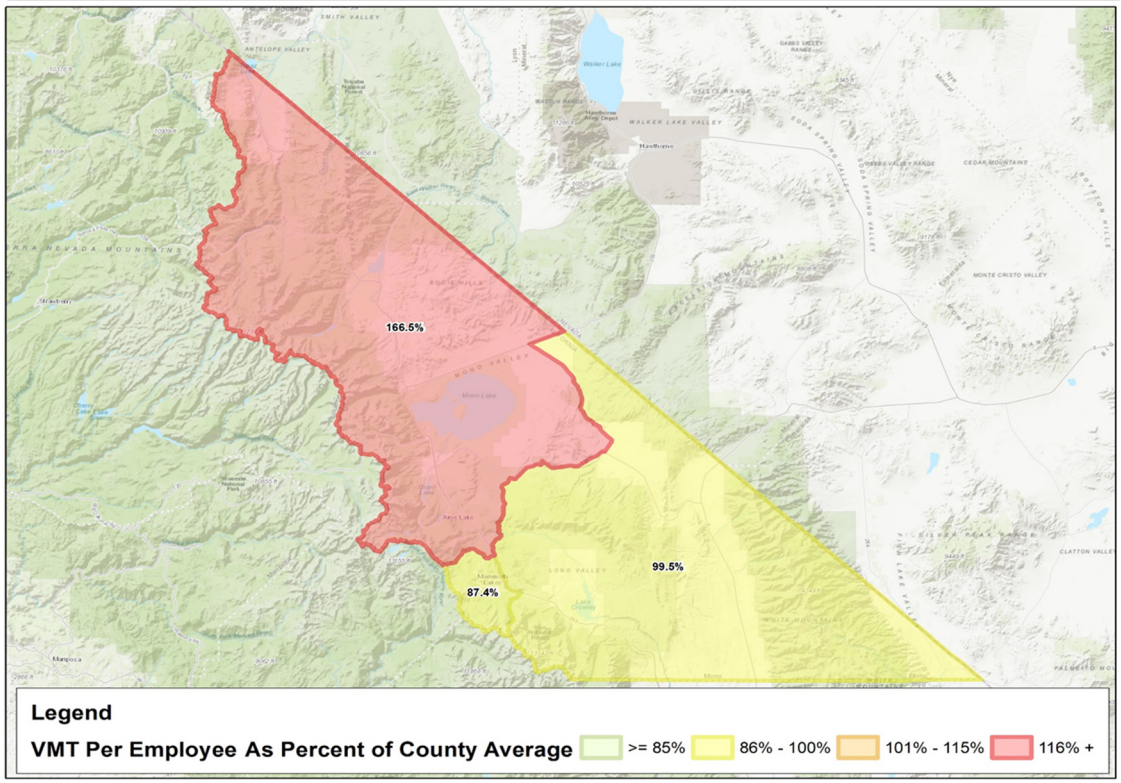


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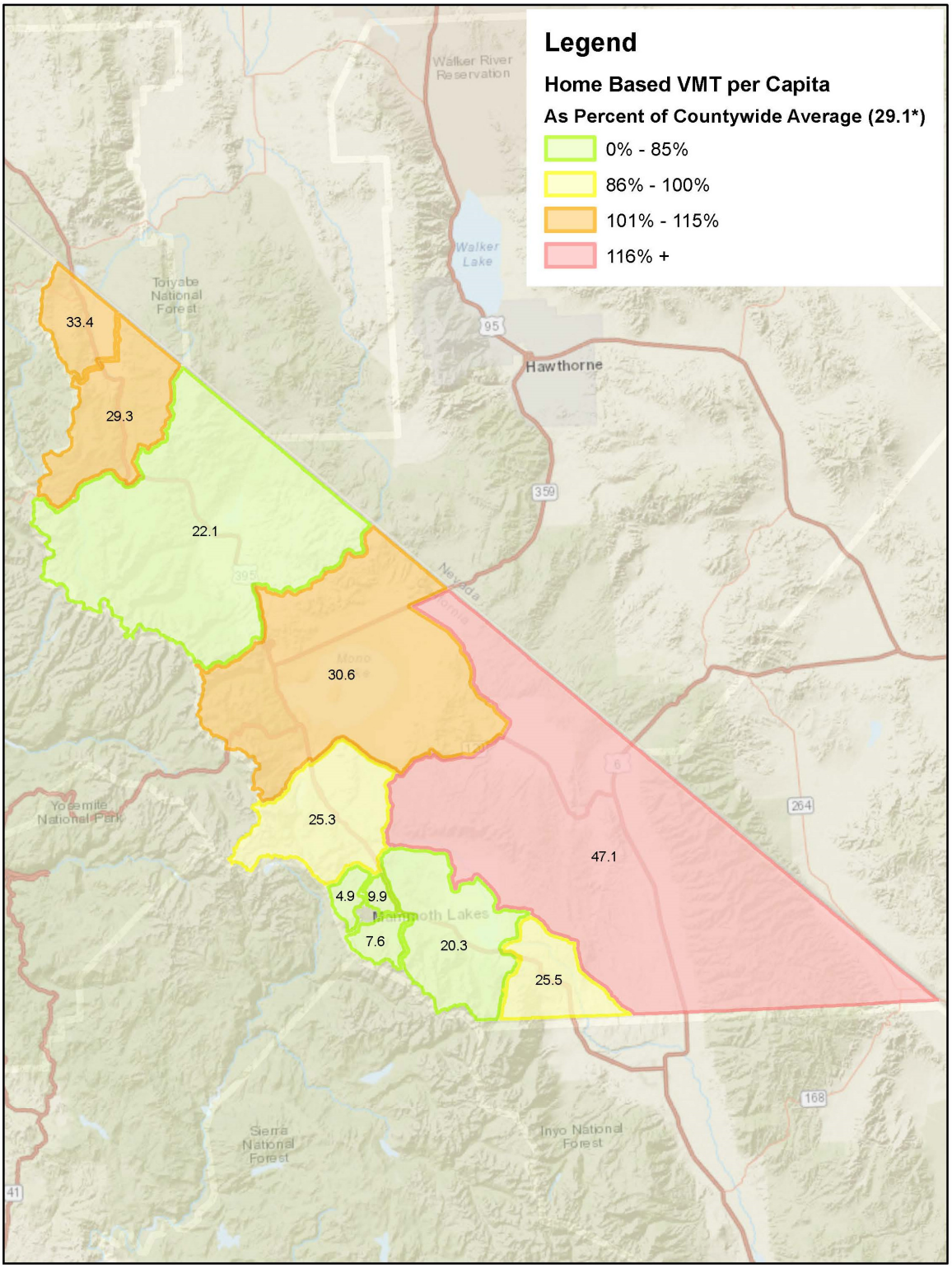
FIGURE 4 VEHICLE MILES TRAVELED PER CAPITA BY TAZ: COUNTYWIDE AVERAGE



Note * Countywide Average Excludes CSTDM TAZ 3023 (Mammoth Lakes)

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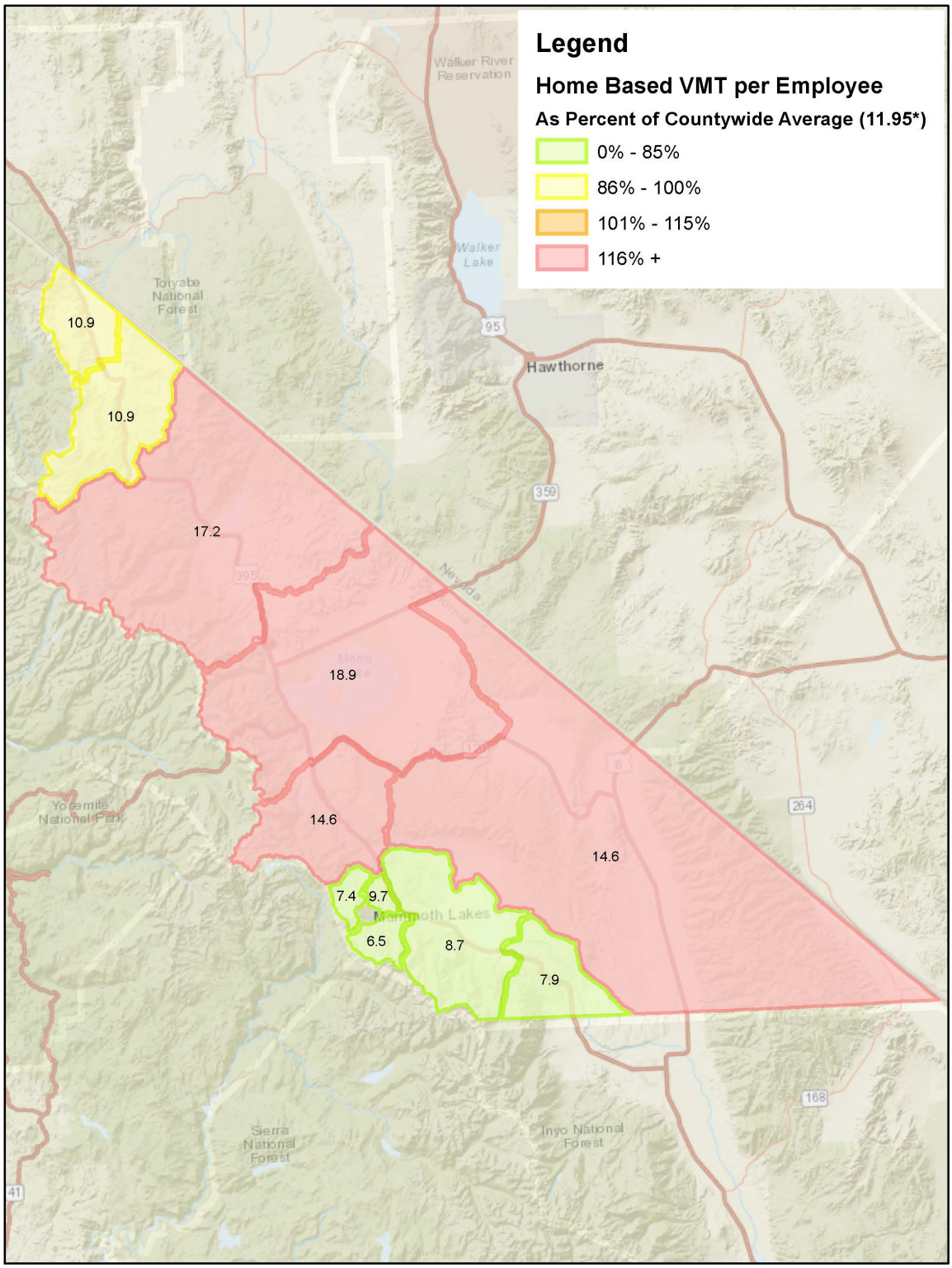
FIGURE 5 VEHICLE MILES TRAVELED PER EMPLOYEE BY TAZ: COUNTYWIDE AVERAGE



Note * Countywide Average Excludes CSTDM TAZ 3023 (Mammoth Lakes)

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MONO COUNTY RECOMMENDED VMT THRESHOLDS AND SCREENING CRITERIA

The recommended VMT screening criteria for Mono County are listed in **Table 9**. The City's proposed VMT thresholds are listed in **Table 10**.

Table 9
Screening Criteria for CEQA Transportation Analysis of Development Projects

Category	Screening Criteria
Located in a VMT Efficient Area (see green areas in Figures 4 and 5)	• Residential project located in an area where VMT/Capita is 15% or more below the base year **Countywide Average less Mammoth Lakes** • Office/Business and Industrial/Warehouse[1] projects located in an area where VMT/Employee is 15% or more below the base year **Countywide Average less Mammoth Lakes** • Industrial project located in an area VMT/Employee is at or below the base year **Countywide average less Mammoth Lakes**[1]
Small Projects	• Generates less than 237 daily unadjusted trips ends
Proximity to Transit	• Located within ½ a mile of an existing or planned major transit stop or an existing stop along a high-quality transit corridor[2,3]
Local-Serving Retail	• A qualifying local-serving retail use: < 200,000 square feet • A retail project may also be defined as local-serving if a market study demonstrates that it is based on the size of its market area.
Affordable Housing	• 100% affordable units based on County criteria
Mixed Use Project	• Project's individual land uses should be compared to the screening criteria above (individually calculated).
Change of Use or Redevelopment Project	• Proposed project's total project VMT is less than the existing land use's total VMT

[1] Heavy-duty truck VMT would not be counted against Industrial/Warehouse projects, only employee-oriented commuter VMT.

[2] Situations where the project footprint is partially within the ½ buffer will be addressed by the County on case-by-case, project-by-project basis.

[3] Major transit stop means a rail transit station, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours").

Table 10 VMT Thresholds of Significance for Development Projects	
Land Use Type	**Threshold for Determination of a Significant VMT Impact[1]**
Residential	15% below Baseline Countywide Average of VMT/Capita Less Mammoth Lakes VMT/Capita: 29.1 .85 = **24.8 VMT/Capita**
Office/Business Professional Employment	15% below Baseline Countywide Average of VMT/Employee Less Mammoth Lakes VMT/Employee: 11.95 x .85 = **10.2 VMT/Emp**
Industrial/Warehouse/Manufacturing Employment[2]	VMT/Employee is at or below the base year countywide average less Mammoth Lakes = **11.95 VMT/Employee**
Regional Retail	No net increase in total Countywide VMT (net VMT change)
Regional Hotel/Motel	No net increase in total Countywide VMT (net VMT change)
Regional Recreational	No net increase in total Countywide VMT (net VMT change)
Regional Medical/Hospital	No net increase in total Countywide VMT (net VMT change)
Regional Public Facilities	Does not contain regional public uses
Mixed Use	Analyze each land use individually per above categories and evaluate independently
Redevelopment	Apply the relevant threshold based on proposed land use

Notes:

1. Projects that exceed these thresholds would have a significant impact under CEQA.
2. Heavy-duty truck VMT would not be counted against Industrial/Warehouse projects, only employee-oriented commuter VMT.

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VMT ANALYSIS AND MITIGATION

VMT ANALYSIS

Projects that don't meet any of the proposed screening criteria and are located in a non-efficient VMT screening area or those that would significantly alter existing or planned land uses will require project level VMT analysis. When a VMT analysis is required, projects may be analyzed by inputting the project land uses into a companion Mono County VMT Sketch Planning Tool developed as part of this study. The VMT Sketch Planning Tool is informed by over 50+ independent select zone analyses using the Kern COG travel demand model to determine the VMT behavior of land uses in remote areas within a predefined distance from the nearest developed area. The VMT Sketch Planning Tool is a resource to County staff to aid in this process.

VMT MITIGATION

The California Air Pollution Control Officers Association (CAPCOA) and published the following two reports on the effectiveness of various VMT mitigation strategies:

- California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.
- California Air Pollution Control Officers Association. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Final Draft, December 2021.

Table 11 summarizes the recommended measures and their documented range of effectiveness from the 2010 report. **Figure 6** shows the CAPCOA Transportation Strategies Organization chart.

Although the effect of multiple mitigation strategies is additive, CAPCOA establishes overall caps on maximum effectiveness when more than one mitigation strategy is applied. Consequently, for some very high VMT locations (greater than 125% shown as red on the VMT maps), project VMT impacts could potentially be unmitigable if located within suburban and/or greenfield settings.

SAMPLE MITIGATION CALCULATIONS

Table 12 provides generic/hypothetical examples of VMT mitigation calculations. As shown, two of the four example projects are not mitigatable with the candidate strategies and would result in a significant and unavoidable impact under CEQA. The examples illustrate the challenges of mitigating VMT at the project site level. This can have the intended effect for applicants to modify their projects by size, type or location to generate less VMT and align with state objectives for greenhouse gas reduction, land use efficiency, energy efficiency, and less overall reliance on the automobile.

Various sample calculations based on the 2010 CAPCOA guidance is provided in **Appendix A**.

While the impact findings are congruent between the two metrics (LOS and VMT), the real difference lies with the choice of mitigation for the development determined to have impacts. Whereas LOS impacts promote site-specific infrastructure treatments to reduce congestion, VMT impacts would focus on programmatic strategies that would reduce employee or resident VMT. These are described in more detail below.

MITIGATION FEE BANK PROGRAMS

VMT mitigation banks or exchanges would provide an alternative to mitigating VMT impacts at the project site level. With a mitigation bank, developers would pay a fee in lieu of specific on-site mitigation measures. The combined fees would then be used to pay for mitigation projects across the county. With a mitigation exchange, developers would select from a pre-approved list of mitigation projects throughout the County.

Any such mitigation fee program or exchange would need to support its mitigation estimates with rigorous analysis and would be subject to the legal requirements of CEQA (i.e., CEQA mitigation monitoring requirements) and the California Mitigation Fee Act. As such, this option would not be a quick or easy undertaking. However, if the County finds over the first few years of adopting VMT thresholds that desirable projects are consistently difficult to mitigate, it may wish to pursue this option. This could be done in conjunction with the next general plan or transportation impact fee update.

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TABLE 11. 2010 CAPCOA MITIGATION STRATEGIES

STRATEGY	DESCRIPTION	REPORTED RANGE OF EFFECTIVENESS	NOTES
LAND USE MEASURES			
INCREASE DENSITY	This measure involves increasing the density of the proposed project.	0.8-30%	Project density will be somewhat determined by zoning. Also, increased project densities may result in LOS or other adverse transportation or other environmental effects during local transportation analysis and/or CEQA analysis.
INCREASE DIVERSITY OF URBAN AND SUBURBAN DEVELOPMENTS (MIXED USE)	Involves including more than a single land use(s) in the proposed project.	9-30%	
INTEGRATE AFFORDABLE AND BELOW MARKET RATE HOUSING	While housing developments that are 100 percent affordable may be presumed less than significant, this method provides credit for partially affordable developments.	0.04-1.2%	Literature supports only a modest VMT reduction for partially affordable developments.
IMPROVE DESIGN OF DEVELOPMENT (INCREASING NETWORK CONNECTIVITY)	This measure is only appropriate for larger developments and should be implemented in conjunction with complete sidewalk coverage, pedestrian crossings, street trees and other design elements that support a pedestrian-oriented environment	3-21%	Based on intersections per square mile.
NEIGHBORHOOD/SITE ENHANCEMENTS			

TABLE 11. 2010 CAPCOA MITIGATION STRATEGIES

STRATEGY	DESCRIPTION	REPORTED RANGE OF EFFECTIVENESS	NOTES
PEDESTRIAN NETWORK IMPROVEMENTS	Provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site, minimize barriers to pedestrian access and interconnectivity, eliminate physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation.	1-2%	Would need to develop set of standards for pedestrian connections that go "above and beyond" existing requirements.
PROVIDE TRAFFIC CALMING MEASURES	Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements.	0.25-1%	Depends on percent of project intersections and streets where improvements are provided.
PROVIDE BIKE PARKING IN NON-RESIDENTIAL PROJECTS	A non-residential project will provide short-term and long-term bicycle parking facilities to meet peak season maximum demand.	0.63%	Not recommended as a stand-alone strategy in the CAPCOA report but other literature cites a modest 0.625% reduction.
PARKING POLICY/PRICING			
LIMIT PARKING SUPPLY	The project will change parking requirements and types of supply within the project site to encourage "smart growth" development and alternative transportation choices by project residents and employees.	5-12.5%	May conflict with existing parking requirements.
UNBUNDLE PARKING COSTS	This project will unbundle parking costs from property costs. Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost.	2.6-13%	Unbundle costs for parking from building rent. Mono County market may not support this measure.

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TABLE 11. 2010 CAPCOA MITIGATION STRATEGIES

STRATEGY	DESCRIPTION	REPORTED RANGE OF EFFECTIVENESS	NOTES
VOLUNTARY PARTICIPATION IN COMMUTE TRIP REDUCTION PROGRAM	Sites participating in a commute trip reduction program apply strategies such as preferential carpool parking and subsidized transit passes.	1-6.2%	

Source: California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

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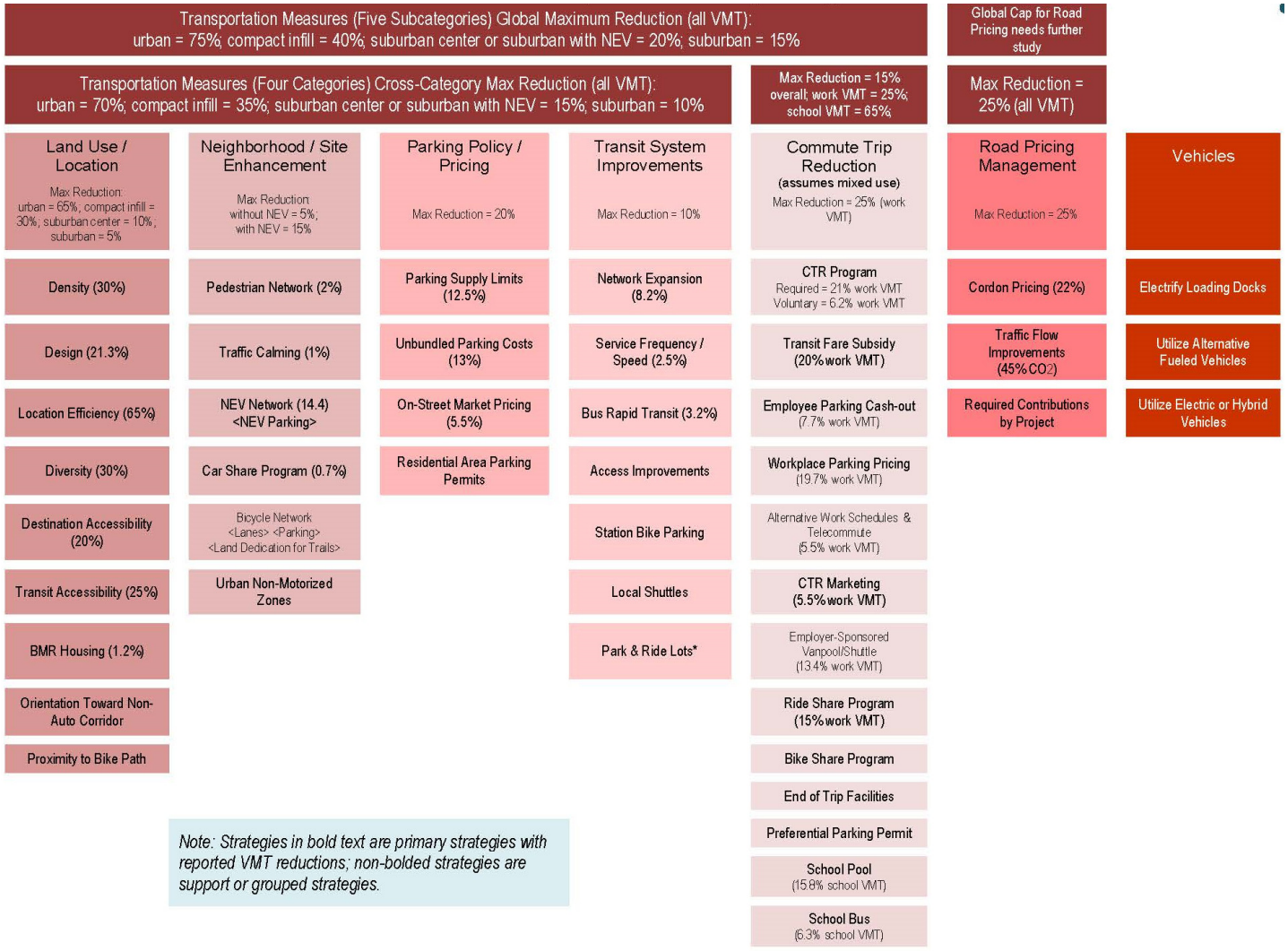
FIGURE 6. CAPCOA – TRANSPORTATION STRATEGIES ORGANIZATION



California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

TABLE 12. SAMPLE MITIGATION CALCULATIONS (BASELINE METRIC AND THEREHSOLD VALUES ARE HYPOTHETICAL)

PROJECT (SEE BELOW FOR DESCRIPTION):	A	B	C	D
BASELINE VMT PER UNIT (HYPOTHETICAL)	44.5	86.9	71.8	47.7
THRESHOLD (HYPOTHETICAL)	44.0	64.8	61.6	44.0
VMT REDUCTIONS (PERCENT):				
INCORPORATE AFFORDABLE HOUSING				0.083
IMPROVE NEIGHBORHOOD CONNECTIVITY			0.013	
PEDESTRIAN NETWORK IMPROVEMENTS	0.020	0.006	0.020	
PROVIDE TRAFFIC CALMING MEASURES			0.008	0.010
PROVIDE BIKE PARKING		0.006		
UNBUNDLED PARKING COSTS[1]		0.136		
VOLUNTARY TRIP REDUCTION PROGRAM[2]		0.054		
TOTAL VMT REDUCTION[3]	**0.02**	**0.20 (0.15)**	**0.04**	**0.09**
VMT AFTER MITIGATION	43.61	69.30	68.87	43.26
MITIGATED IMPACT?	**Yes**	**No**	**No**	**Yes**

Projects: A) Multifamily Residential; B) Office Building, C) 100 Unit Single Family Residential Project; D) 200 Unit Apartment Complex

Notes:

a) Assumes $200 monthly parking charge and $6,000 annual ownership cost

b) Assumes suburban center effectiveness rate and 100% eligibility

c) CAPCOA report recommends capping total reductions at 15% for suburban locations

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REFERENCES

Office of Planning and Research. Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

California Air Pollution Control Officers Association. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Final Draft, December 2021.

California Department of Transportation. Vehicle Miles Traveled-Focused Transportation Impact Study Guide, May 2020.

California Department of Transportation. Transportation Analysis under CEQA. First Edition, September 2020.

California Department of Transportation. Transportation Analysis Framework. First Edition, September 2020.

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APPENDIX A

VMT MITIGATION CALCULATION METHODS

QUANTIFYING GREENHOUSE GAS MITIGATION MEASURES, 2010 CAPCOA

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This appendix presents calculation methods for the VMT mitigation strategies proposed for use in Mono County. The calculation methods may be implanted in standardized spreadsheet templates.

LAND USE MEASURES

INCREASE DENSITY

Inputs: Number of housing units or jobs per acre for development site

Calculation: Percent VMT reduction (capped at 30 percent) = A*B

where A is the percent increase in jobs or housing units per acre for the site and B is the elasticity of VMT with respect to density.

A is calculated as

(Housing units per acre-7.6)/7.6 or

(Jobs per acre-20/20)

The CAPCOA report recommends that A be capped at 500 percent and the overall VMT reduction be capped at 30 percent. The factor for B recommended by CAPCOA is 0.07.

INCREASE DIVERSITY (ADD MIXED USE TO PROJECT)

Inputs: Percentage of each land use type in the project (building floor area)

Calculation: Percent VMT reduction = Land Use Change * B where:

$$Land\ Use\ Index\ (LUI) = \frac{-a}{\ln(6)}$$

$$a = \sum_{i=1}^{6} a_i \ln(a_i)$$

$$Land\ Use\ Change = \frac{LUI - 0.15}{0.15}$$

a_i = building floor area of land use/total square feet of area considered

a_1 = single family residential

a_2= multifamily residential

a_3 = commercial

a_4 = industrial

a_5 = institutional

a_6 = park

If land use is not present, set a_i equal to 0.01

B is the elasticity of VMT with respect to land use index (LUI) and 0.09 is the recommended value.

Note that the OPR guidance recommends analyzing the residential and employment land uses of a mixed-use project separately. However, this method could be applied to reduce the VMT of each use in cases where mitigation is required.

INTEGRATE AFFORDABLE HOUSING

While housing developments that are 100 percent affordable may be presumed less than significant with respect to VMT, this method provides credit for partially affordable developments.

Inputs: Percent of residential units that are deed-restricted for extremely low income (ELI), very low income (VLI), and low-income households (LI).

Method: Percent VMT Reduction = (Percent ELI Units) (32.5) + (%VLI Units)(25.2) + (% LI Units)(10.2)

IMPROVE DESIGN OF DEVELOPMENT (INCREASE NETWORK CONNECTIVITY)

Inputs: Number of intersections per square mile

Method: Percent VMT Reduction = Intersections *B

Where Intersections = Percent increase in intersections versus a typical suburban development

= (Project Intersections per Square Mile-36)/36

B=elasticity of VMT with respect to intersections (0.12 is recommended value from literature).

This measure is only appropriate for larger developments and should be implemented in conjunction with complete sidewalk coverage, pedestrian crossings, street trees and other design elements that support a pedestrian-oriented environment. Note that the value of the Intersections factor should be capped at 500 percent.

NEIGHBORHOOD AND SITE ENHANCEMENTS

PEDESTRIAN NETWORK IMPROVEMENTS

Inputs: Information about pedestrian access and connectivity within the project site and connecting to off-site destinations.

Method: The VMT reduction is applied according to the table below.

ESTIMATED VMT REDUCTION	EXTENT OF PEDESTRIAN ACCOMMODATIONS	CONTEXT
2%	Within Project Site and Connecting Off-Site	Urban/Suburban
1%	Within Project Site	Urban/Suburban
<1%	Within Project Site and Connecting Off-Site	Rural

Source: California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

PROVIDE TRAFFIC CALMING MEASURES

This measure is applicable for larger developments and where improvements extend beyond the project frontage.

Inputs: Percent of streets and intersections within project site with traffic calming improvements.

Method: The VMT reduction is applied according to the table below.

		% STREETS WITH IMPROVEMENTS			
		25%	50%	75%	100%
		PERCENT VMT REDUCTION			
% INTERSECTIONS WITH IMPROVEMENTS	25%	0.25%	0.25%	0.5%	0.5%
	50%	0.25%	0.5%	0.5%	0.75%
	75%	0.5%	0.5%	0.75%	0.75%
	100%	0.5%	0.75%	0.75%	1%

Source: California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures, August 2010.

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PROVIDE BIKE PARKING IN NON-RESIDENTIAL PROJECTS

This strategy has minimal impact as a stand-alone measure and should be implemented in conjunction with enhanced street network characteristics and bicycle facilities.

Inputs: Information on short term and long terms bicycle parking facilities sized to meet peak maximum demand.

Method: VMT is reduced by 0.625%.

PARKING PRICING AND POLICY

LIMIT PARKING SUPPLY

This mitigation strategy involves providing less parking than required by the Institute of Transportation Engineers (ITE) Parking Generation Manual. This strategy may conflict with municipal code parking requirements.

Inputs: ITE parking generate rate for project site and actual parking provision rate for project site.

Method: $Pct\ VMT\ Reduction = \frac{(Actual\ Parking\ Provision - ITE\ Parking\ Generation\ Rate)}{ITE\ Parking\ Generation\ Rate} * 0.5$

UNBUNDLE PARKING COSTS FROM PROPERTY COST

This strategy involves charging for parking on a separate basis from other property costs. For example, apartment or office rent would be separate from parking space rental. This strategy would involve ongoing monitoring to make sure it continues to be enforced.

Inputs: Monthly parking cost for project site.

Method: Percent VMT Reduction = Change in vehicle ownership cost * elasticity * A

Where

elasticity of vehicle ownership with respect to total vehicle costs = -0.4

Change in vehicle ownership cost = Monthly parking cost*12/annual vehicle ownership cost

A = 85% (adjustment from vehicle ownership to VMT)

COMMUTE TRIP REDUCTION PROGRAMS

This VMT mitigation strategy would expand participation in this TDM program to all sites requiring VMT mitigation. The research cited for this strategy assumes that the TDM program will include

carpooling, ride matching, preferential carpool parking, flexible work schedules for carpools, a half-time transportation coordinator, vanpool assistance, bicycle parking, showers, and locker facilities.

Inputs: Percentage of employees eligible for program and location of project site (low density suburb, suburban center, or urban location).

Method:

Percent VMT Reduction = Percent reduction in commute VMT * Percent employees eligible

Where percent reduction in commute VMT is 5.2% (low density suburb), 5.4% (suburban center), or 6.2% (urban).

STAFF REPORT

Subject: Executive Director's Report
Presented by: Phil Moores, Executive Director

Recruitment

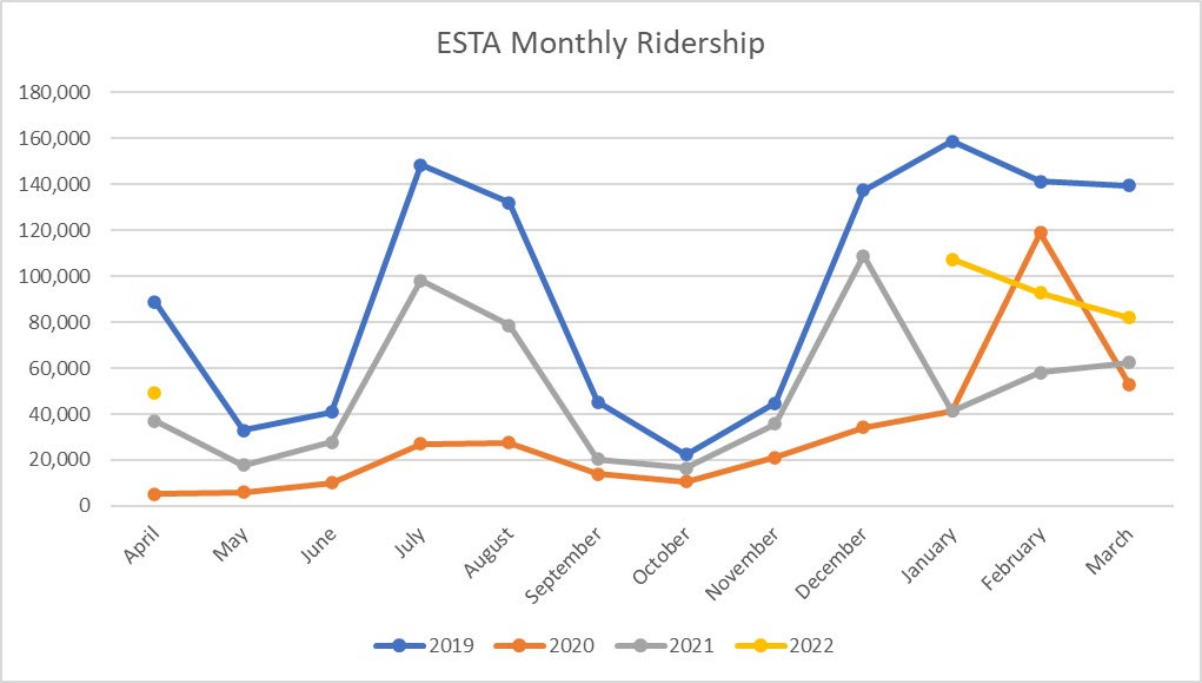
ESTA continues to seek qualified applicants for driving and utility positions. All hands are on deck for the important revenue generating Reds Meadow service; therefore, onboarding and training are suspended until after Reds Meadow Shuttle closes.

Ridership

Unsurprisingly, overall ridership increased in April compared to last year. Compared to pre-Covid, April was still 44% down. Of note, are Lifeline services Benton and Walker DAR which have not recovered since Covid.

April Ridership Report						
Route	Pre-Covid 2019	2020	2021	2022	Change Current vs. Last year	% Change Current vs Pre-Covid
BEN	22	2	24	5	-19	-77%
BISDAR	3,693	1,354	2,551	3,166	615	-14%
BPTCAR	19	20	2	18	16	-5%
LANC	487	73	237	366	129	-25%
LP/BIS	213	106	220	222	2	4%
LPDAR	396	299	429	370	-59	-7%
MAMFR	19,018	2,942	7,942	10,770	2,828	-43%
MDAR	498	28	213	200	-13	-60%
MMSA	63,132	0	24,841	33,145	8,304	-47%
MXP	380	96	195	276	81	-27%
NRIDER	309	57	178	236	58	-24%
RENO	545	84	467	607	140	11%
WLK	117	25	10	14	4	-88%
Total	88,829	5,086	37,309	49,395	12,086	-44%

The chart below shows the ridership by month since pre-Covid.



Service

Lakes Basin Trolley began operation Memorial Day Weekend, and Bishop Creek Shuttle and Reds Meadow Shuttle is scheduled for a June 17 start.

ESTA was issued a Public Records Request for the proposed Woodman Turnaround on the Mammoth Lakes Routes serving upper Old Mammoth Road. The Snow Creek Athletic Club turnaround was discontinued due to housing development on the property. We are currently using the fire station to turn around the bus. However, this is a temporary maneuver, and the Town is working on a permanent routing solution. The Woodman Turnaround was found to be the best location, but the neighborhood is fighting to keep ESTA from using the property at Woodman and Old Mammoth. The property is publicly owned and used by the water district, and a bus turnaround could be engineered there.

Agenda Item #9: Correspondence

From: Caltrans D9 Public Information Office
To: Gerry LeFrancois
Subject: California Transportation Commission Announces Funds For Road Repair Projects
Date: Tuesday, May 24, 2022 11:32:32 AM

[EXTERNAL EMAIL]

Date: May 18, 2022
Contact: Christopher Andriessen
Phone: (760) 937-2138

FOR IMMEDIATE RELEASE

California Invests $700 Million to Repair and Improve Transportation Infrastructure

Senate Bill 1 provides more than $272 million in funding

FRESNO — The California Transportation Commission (CTC) allocated $700 million today to repair and improve transportation infrastructure throughout the state. Senate Bill (SB) 1, the Road Repair and Accountability Act of 2017, accounts for $272 million – more than a third of the funding.

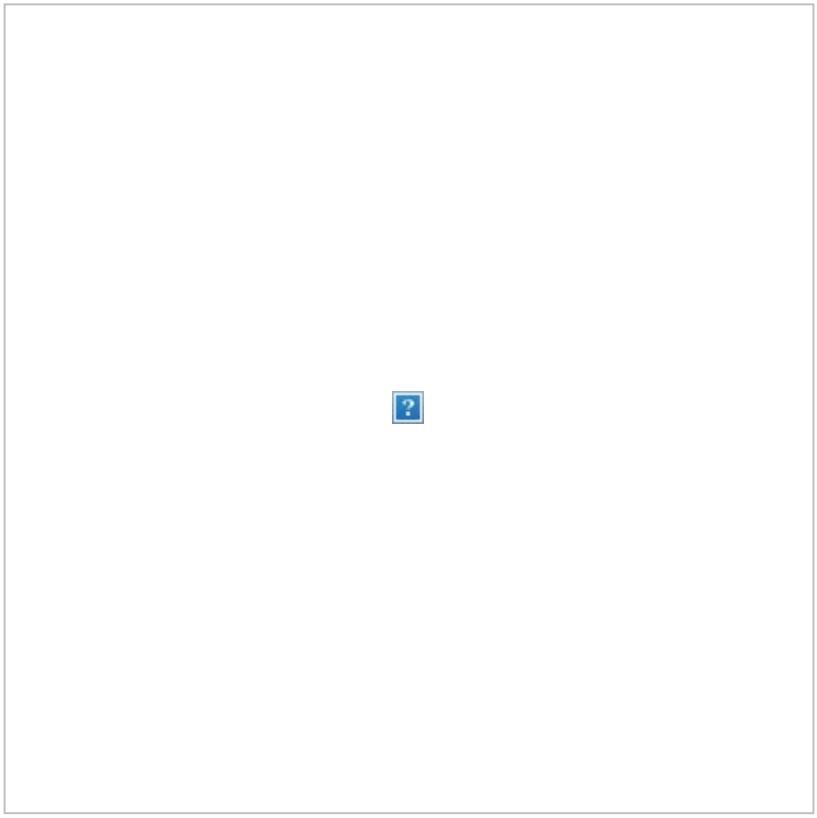
“This critical investment will help Caltrans continue repairing, maintaining and upgrading our state’s aging transportation infrastructure for improved safety and sustainability,” said Caltrans Acting Director Steven Keck. “It reflects both the CTC’s and Caltrans’ commitment to providing travelers and communities – as well as California’s dynamic and growing economy – with a world-class, multimodal transportation system.”

Projects approved this week include:

- The Town of Mammoth Lakes received $664,000 to improve Laurel Mountain Road. Improvements planned for this project include a sidewalk on the east side of the road, streetlights, curbs and gutters, bike lanes, storm drains, and reconstruction of the pavement.
- The Mono County Local Transportation Commission received $135,000 to help fund planning, programming, and monitoring.

SB 1 provides $5 billion in transportation funding annually split between the state and local agencies. Road projects progress through construction phases more quickly based on the availability of SB 1 funds, including projects that are partially funded by SB 1.

For more information about transportation projects funded by SB 1, visit RebuildingCA.ca.gov.



Agenda Item #11: Informational

Help make walking and biking in June Lake better!

June Lake Loop Active Transportation Plan

Join Us at the ATP events to provide your feedback about key walking and bicycling destinations, the most important facility types, and any barriers to walking and bicycling the June Lake Loop.

Wednesday, June 22, 2022 | 6-8 PM

Community Workshop

June Lake Community Center | 90 W Granite Ave

Families and children are welcome!
Food and refreshments will be provided!

Thursday, June 23, 2022 | 10-11 AM

Village Walking Audit

Meet at Post Office | 2747 Boulder Dr

Friday, June 24, 2022 | 4-6 PM

Draft Recommendations Open House

On Highway 158 near the General Store and Epic Café

WE NEED YOUR HELP

Mono County is developing an Active Transportation Plan for the June Lake Loop that will identify priority areas for pedestrians and cyclists to walk or bike along or across SR 158. This will help the County identify priority areas for pedestrian/bicycle improvements, recommend specific projects, and help secure project funding.

After these events, the design team will present the draft plan back to the community at an event in the fall, and then to the County Board of Supervisors.

Keep an eye out for our popup table events on the Loop that week!

Take our Survey!

Please take this survey to inform us about the challenges you experience while walking or biking in the June Lake area and your ideas about how to solve them.

www.surveymonkey.com/r/JLLoop

Stay Involved:

Visit us online at
bit.ly/june-lake-atp

For More Information:

Kelly Karl
Mono County CDD
760.924.1809 (Office)
kkarl@mono.ca.gov