

- New/Expanded Facilities
- Mountain Region
- Community Plan Boundaries
- Existing Truck Route
- City Boundaries
- San Bernardino County
- - - - Rail

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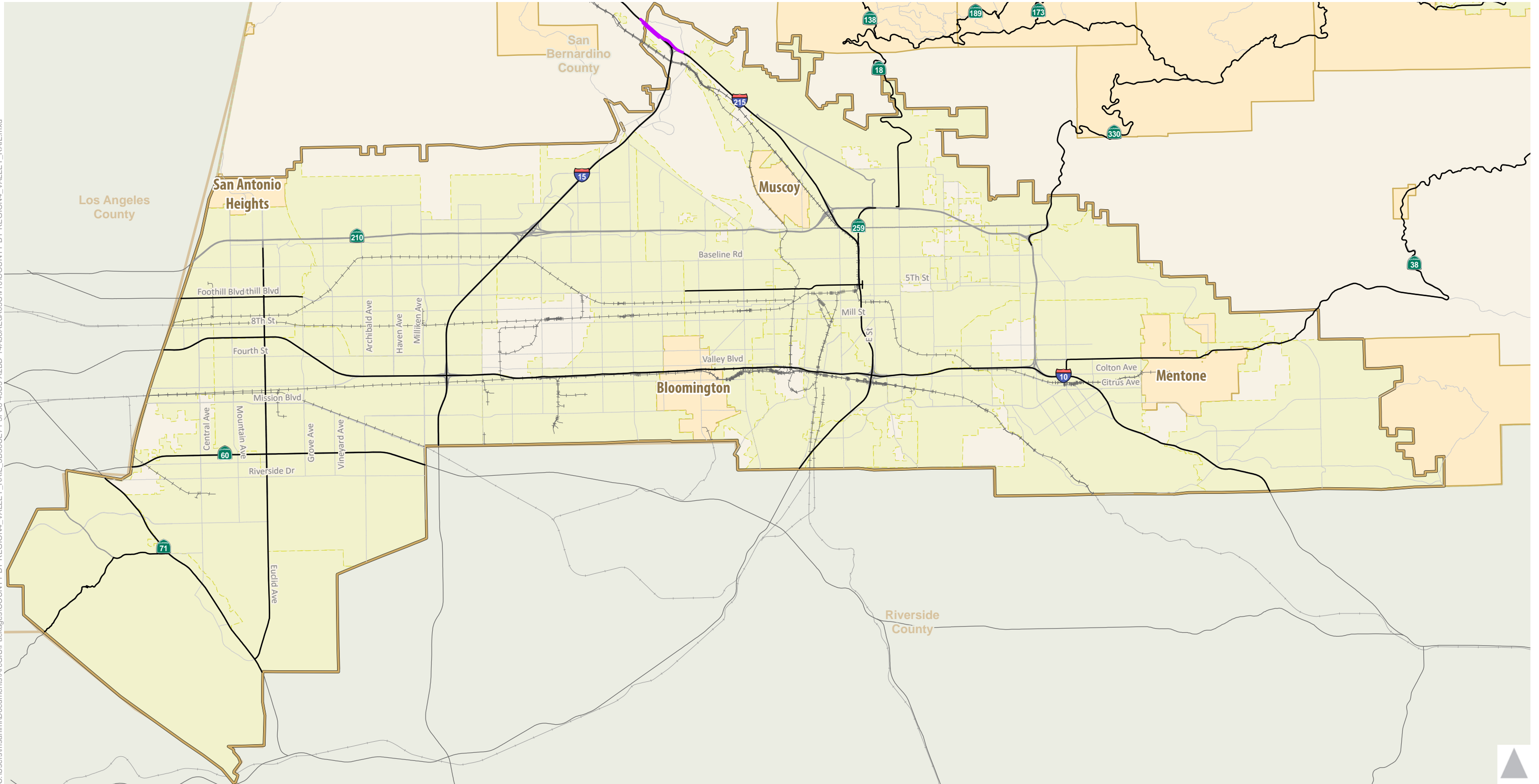
Figure 7C









Mountain Region - Future Goods Movement

*within Unincorporated County



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- | | | |
|---|---|---|
|  New/Expanded Facilities |  Valley Region |  Community Plan Boundaries |
|  Existing Truck Route |  City Boundaries |  NewCPs |
|  Rail |  San Bernardino County | |



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Figure 7D

Valley Region - Future Goods Movement

*within Unincorporated County



NON-MOTORIZED FACILITIES

As documented in the *Existing Conditions Report*, bicycle facilities are extremely limited in the County's unincorporated communities. Most communities offer no facilities at all. However, according to the SANBAG Non-Motorized Transportation Plan, a significant number of bicycle facilities are planned in unincorporated County areas. The County should work to ensure that facilities are built and that surrounding development supports their active use. In addition, the County should continue to examine additional locations for expanded bicycle facilities.

Figures 8A through 8D show proposed bikeways in each facility. In the North Desert and East Desert Regions, planned facilities are limited, similar to existing facilities. Most proposed facilities are located in the Mountain and Valley Regions.

NORTH DESERT REGION

In the North Desert Region, proposed bikeways include a Class III facility along the National Trails Highway continuing into Newberry Springs and Daggett. Proposed facilities also include Class II bicycle lanes in Helendale and Oro Grande and Class I, II and III bikeways in Oak Hills.

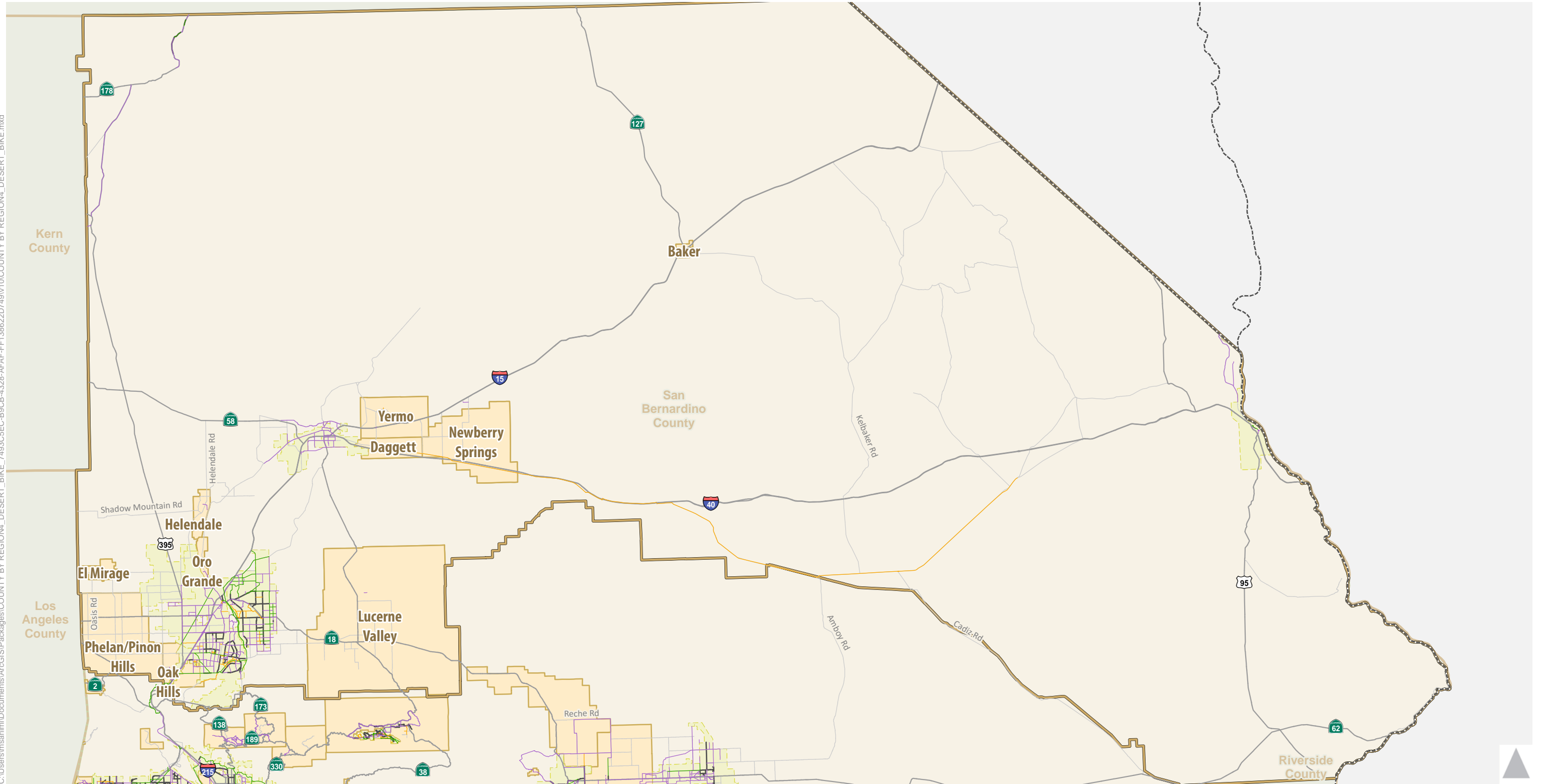
EAST DESERT REGION

In the East Desert Region, proposed bikeways include Class II and III facilities in Homestead Valley and Pioneertown, and Class I, II, and III facilities in Joshua Tree.

MOUNTAIN REGION

Significant bikeway improvements are planned in the Mountain Region. These include Class II facilities in Crest Forest, Lake Arrowhead, and Hilltop and Class II and III facilities in Bear Valley. In addition, there are two proposed facilities in unincorporated areas adjacent to Interstate 15: the Class I Cajon Pass path and Class II bicycle lanes on Cajon Boulevard.

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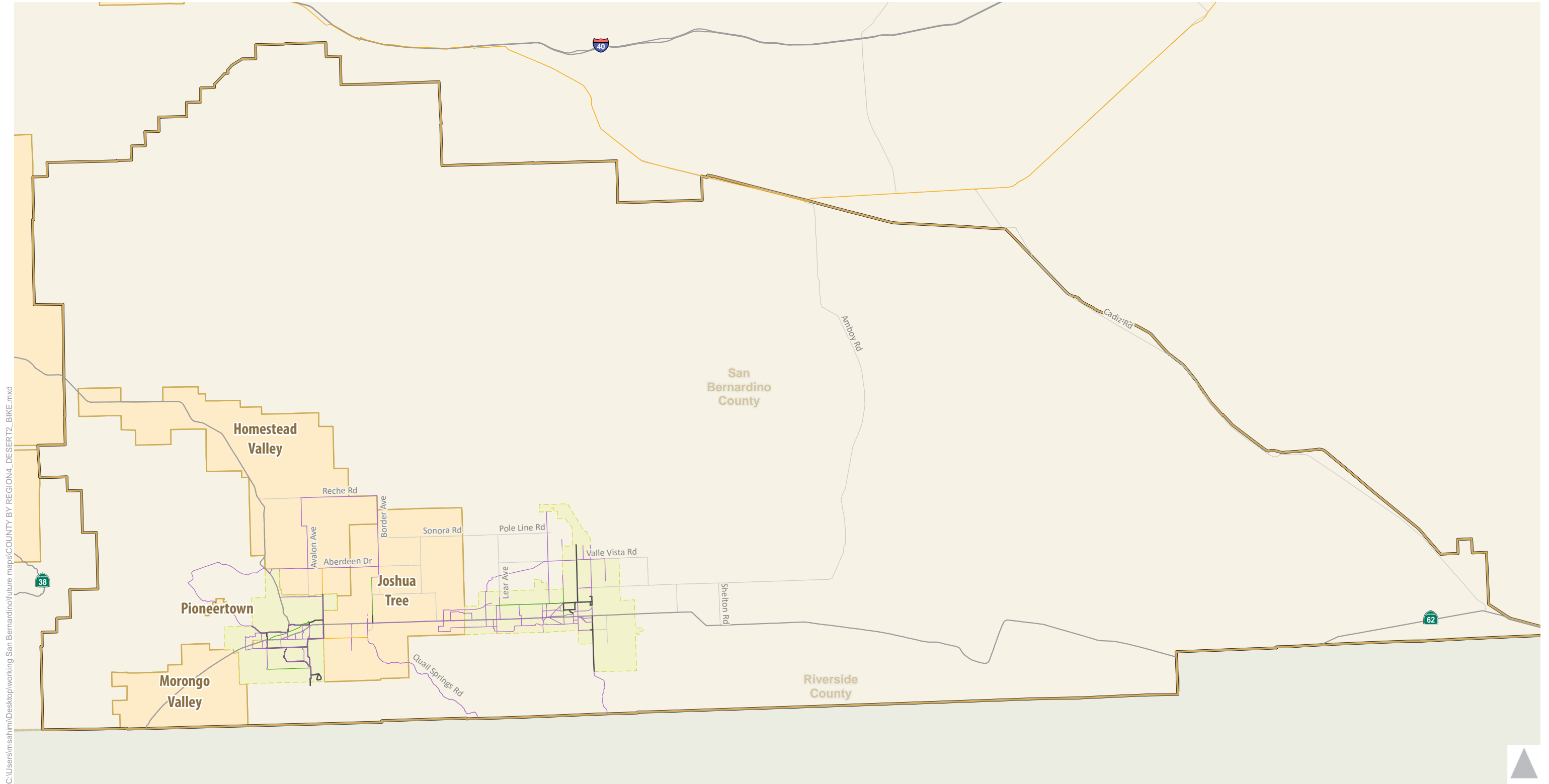


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Figure 8A

North Desert Region - Future Bicycle Facilities





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- Planned Class I
- Planned Class II
- Planned Class III
- Existing Bikeways
- East Desert Region
- City Boundaries
- Community Plan Boundaries
- San Bernardino County

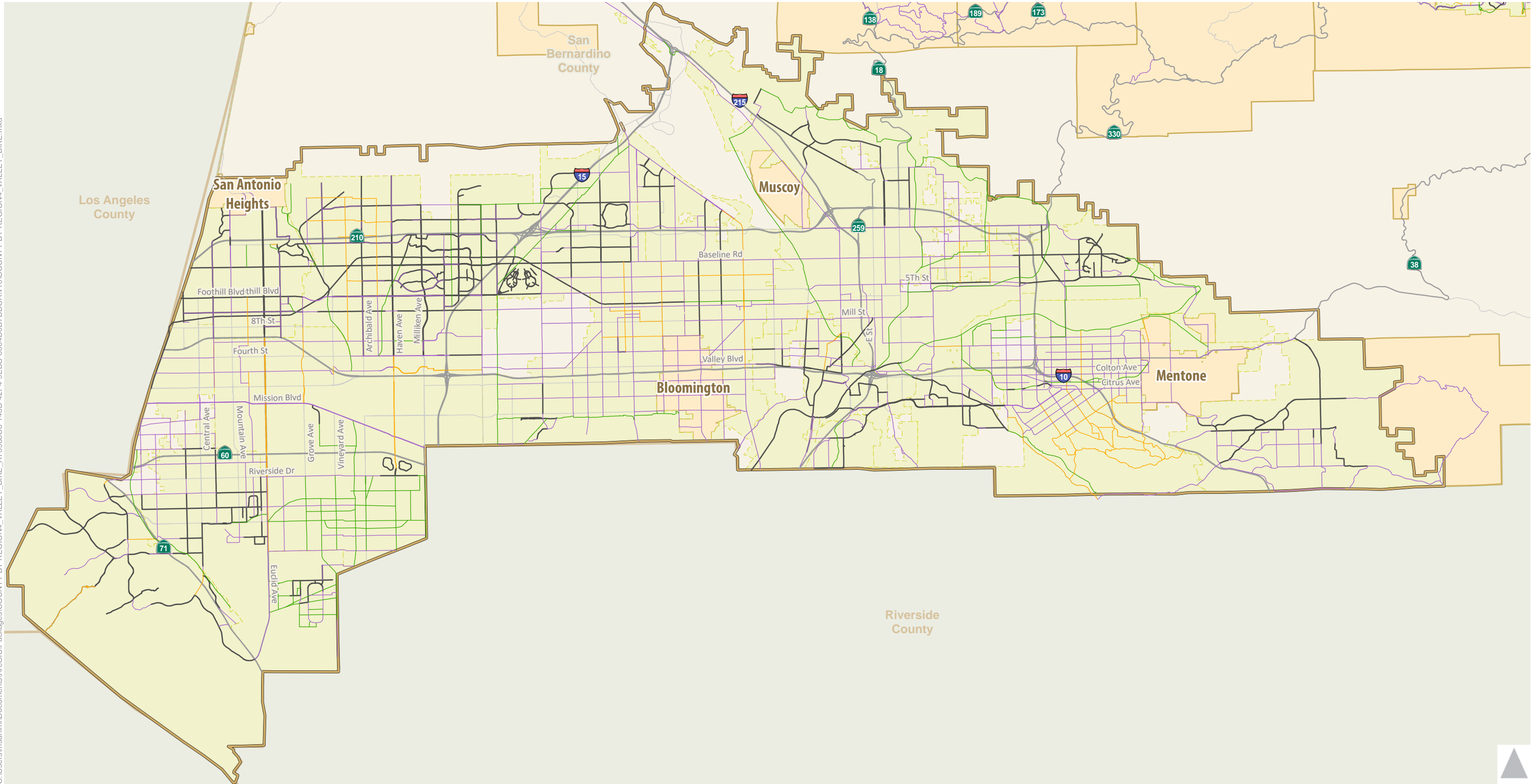
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Figure 8B

East Desert Region - Future Bicycle Facilities



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- | | | |
|-------------------|-------------------|---------------------------|
| Planned Class I | Existing Bikeways | Community Plan Boundaries |
| Planned Class II | Valley Region | San Bernardino County |
| Planned Class III | City Boundaries | |



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Figure 8D

Valley Region - Future Bicycle Facilities



VALLEY REGION

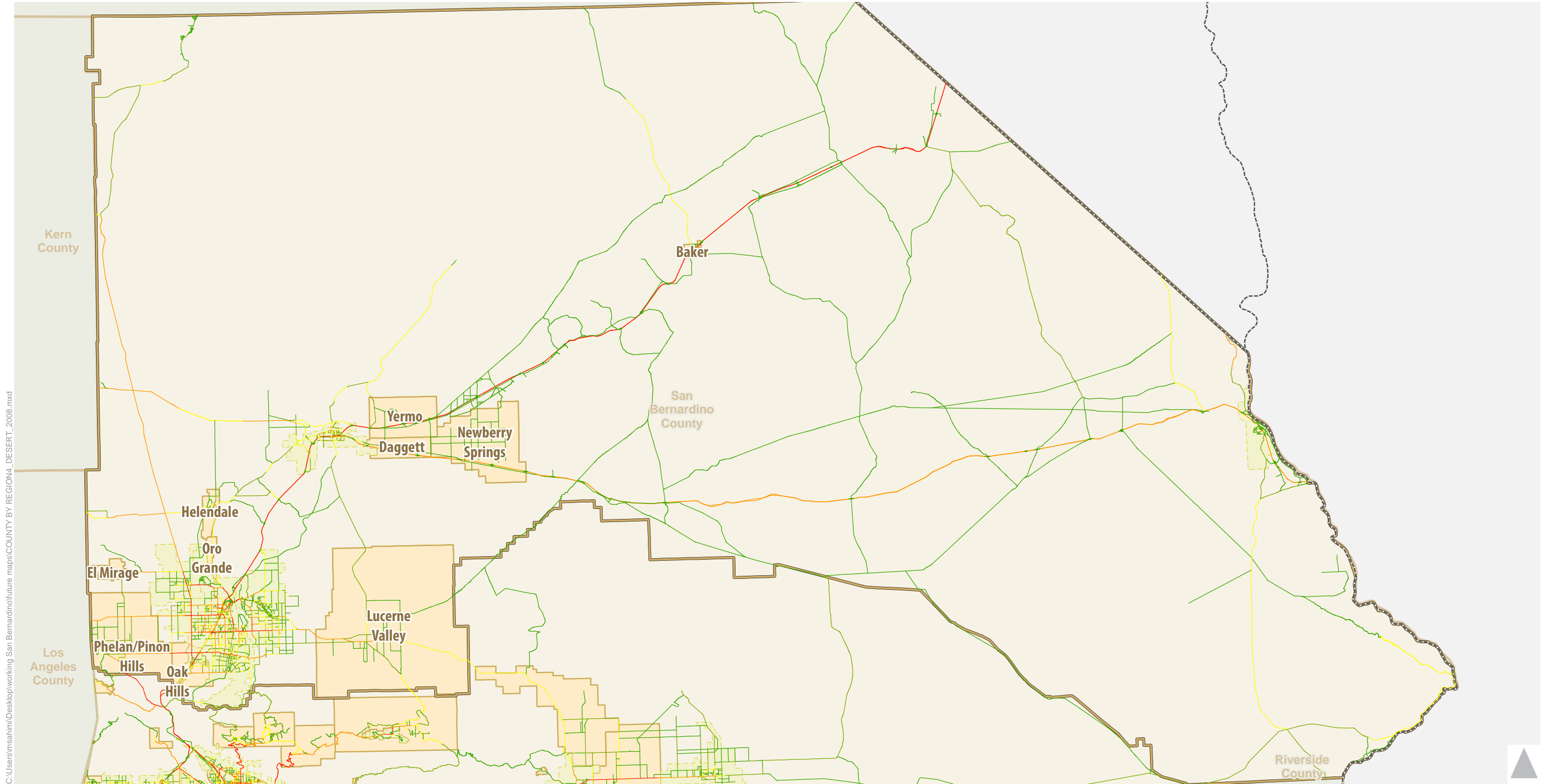
Significant bikeway improvements are also planned in the Valley Region. These include Class II bikeways in San Antonio Heights, Bloomington, and Muscoy. In Mentone, Class I, II, and III facilities are proposed.

COMMUTE PATTERNS

As documented in the *Existing Conditions Report*, most county residents travel outside of the county for work. This finding was based on data obtained through the U.S. Census Bureau's Longitudinal Employer Household Dynamics (LEHD). According to the LEHD database, the percentage of persons living in the county's unincorporated communities who work outside the County has increased steadily between 2004 and 2013 from 46.9% to 53.3%. This pattern generally applies to county residents as a whole. Generally, this trend translates to higher than usual vehicle volumes on regional roads.

Figures 9A through 9H show the daily vehicle model volumes from the San Bernardino Transportation Analysis Model (SBTAM) for the base year 2008 and future year 2035. In the North Desert Region, there are noticeable increases in roadway volumes. Daily volumes are higher on regional highways such as Interstate 40 and US Route 395. In addition, there are increases on State Routes 18 and 38 in Phelan/Pinon Hills, State Routes 18 and 247 in Lucerne Valley, and several local roads in cities such as Victorville and Apple Valley. In the East Desert Region, there are higher volumes on State Route 247 in Homestead Valley, which continues into the Desert Region. In the Mountain Region, State Routes 138, 18, and 38 all show higher volumes. The tighter, denser grid system in the Valley Region shows widespread increases in daily volumes.

Long-distance commutes most likely play a role in increasing roadway volumes and congestion as residents leave their communities for work. The commute patterns of each specific region are examined below.

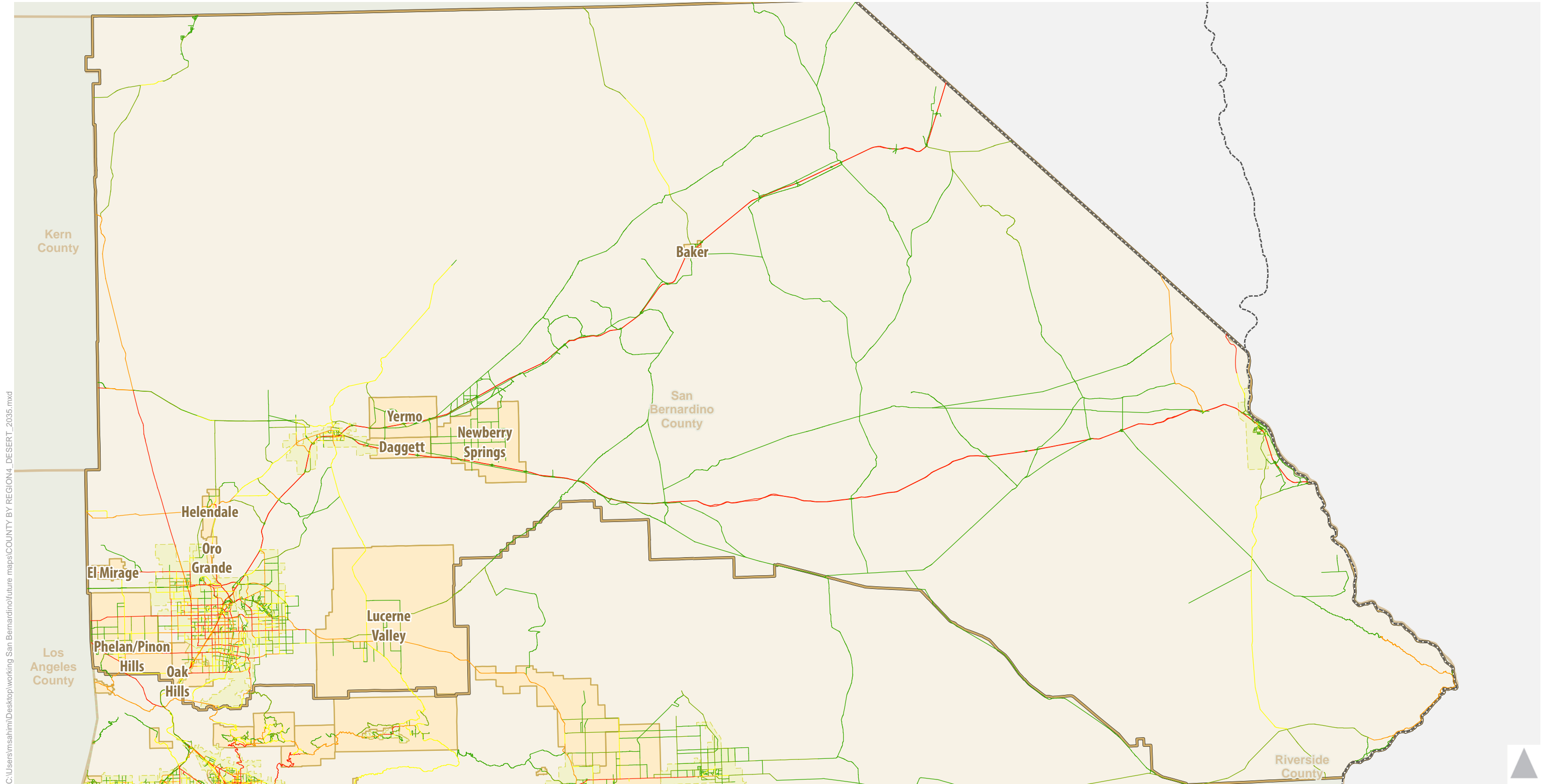


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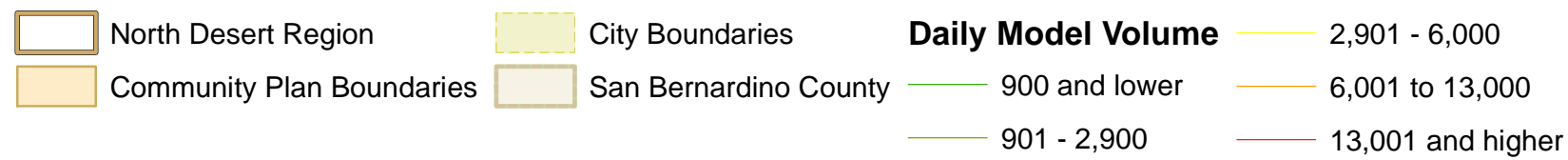
Figure 9A

North Desert Region - Year 2008 SBTAM Daily Volumes





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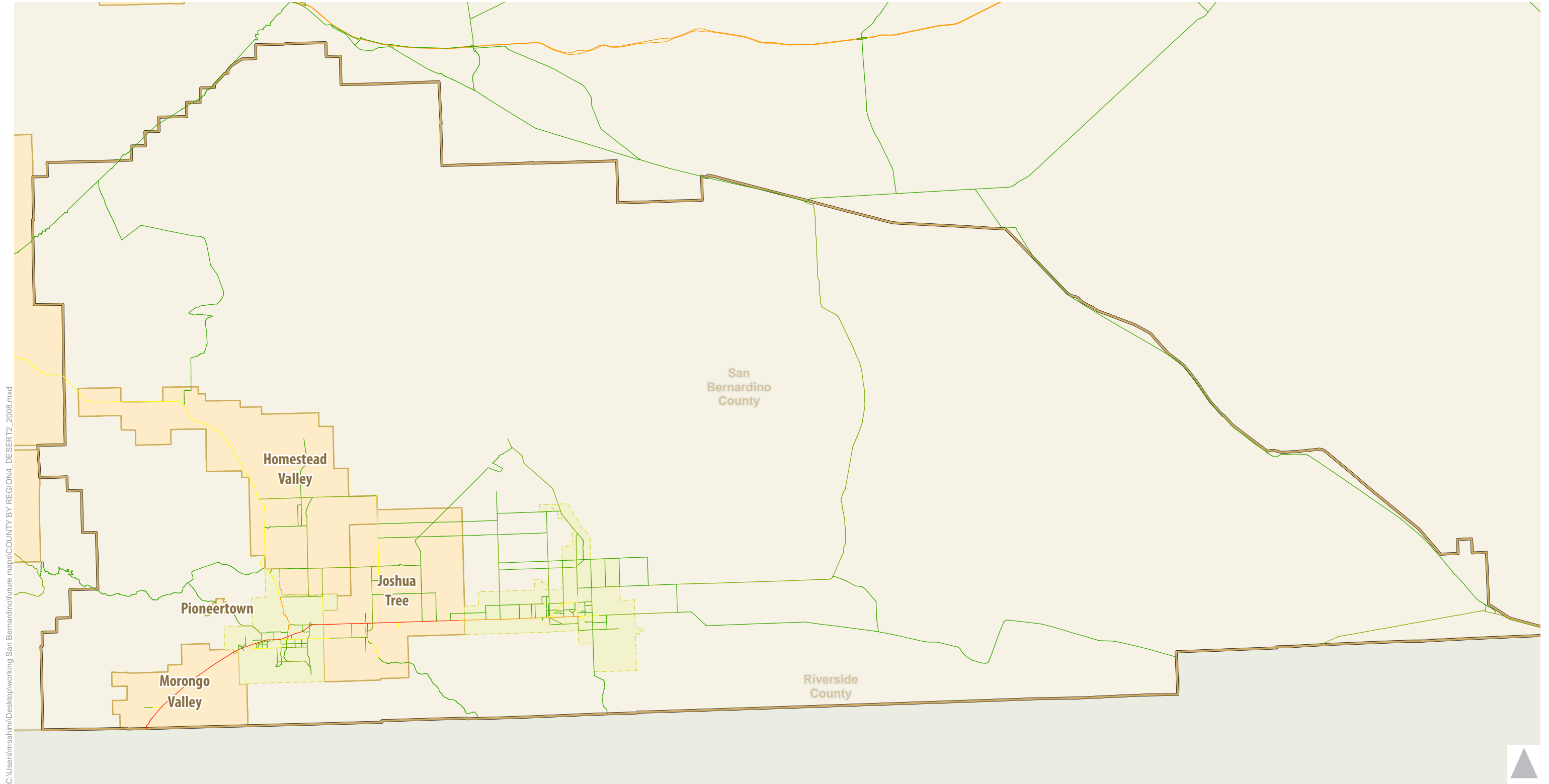


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Figure 9B

North Desert Region - Year 2035 SBTAM Daily Volumes



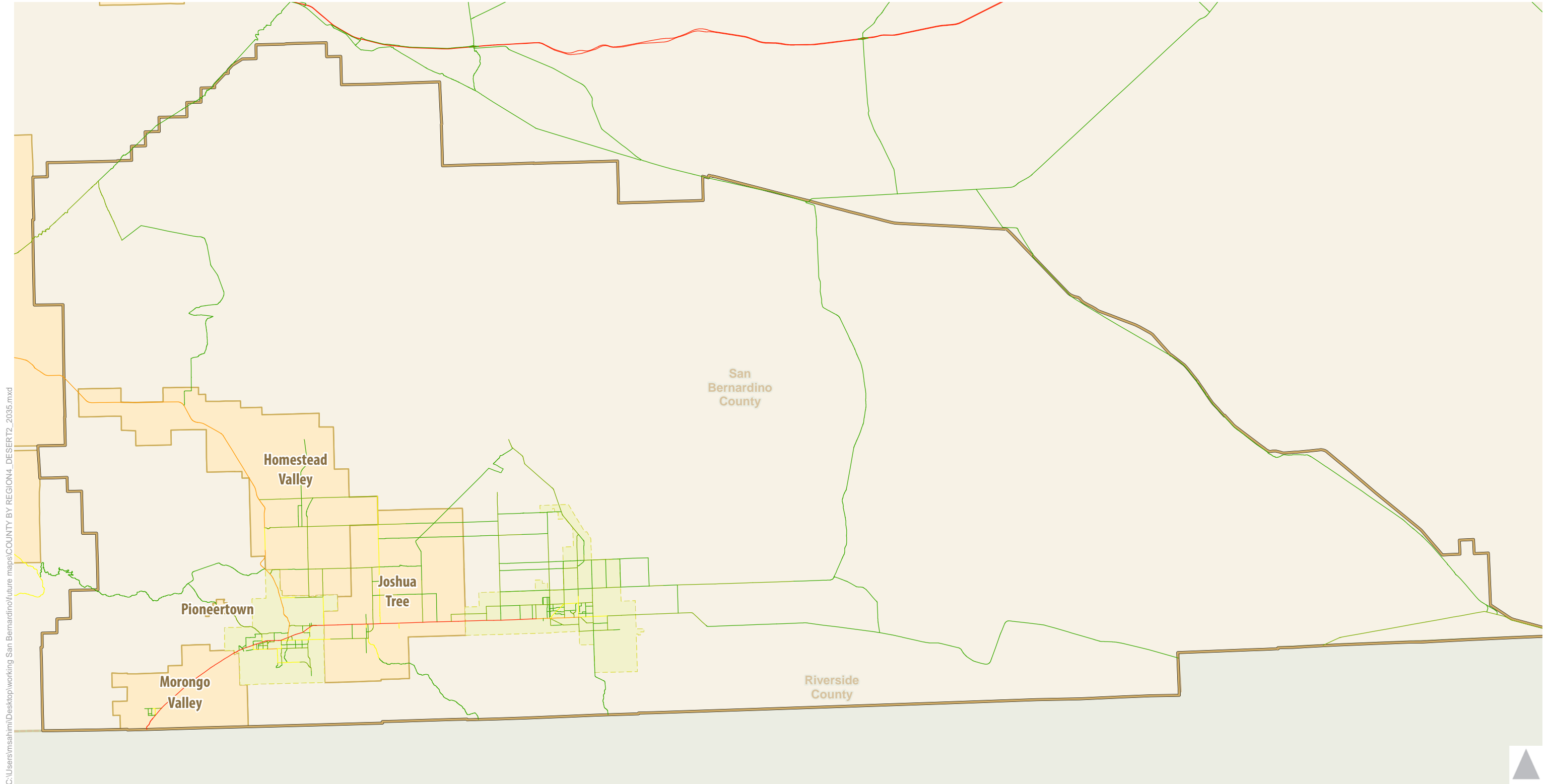


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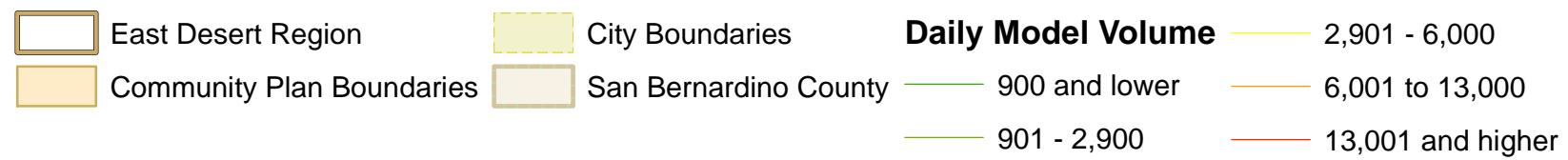
Figure 9C

East Desert Region - Year 2008 SBTAM Daily Volumes





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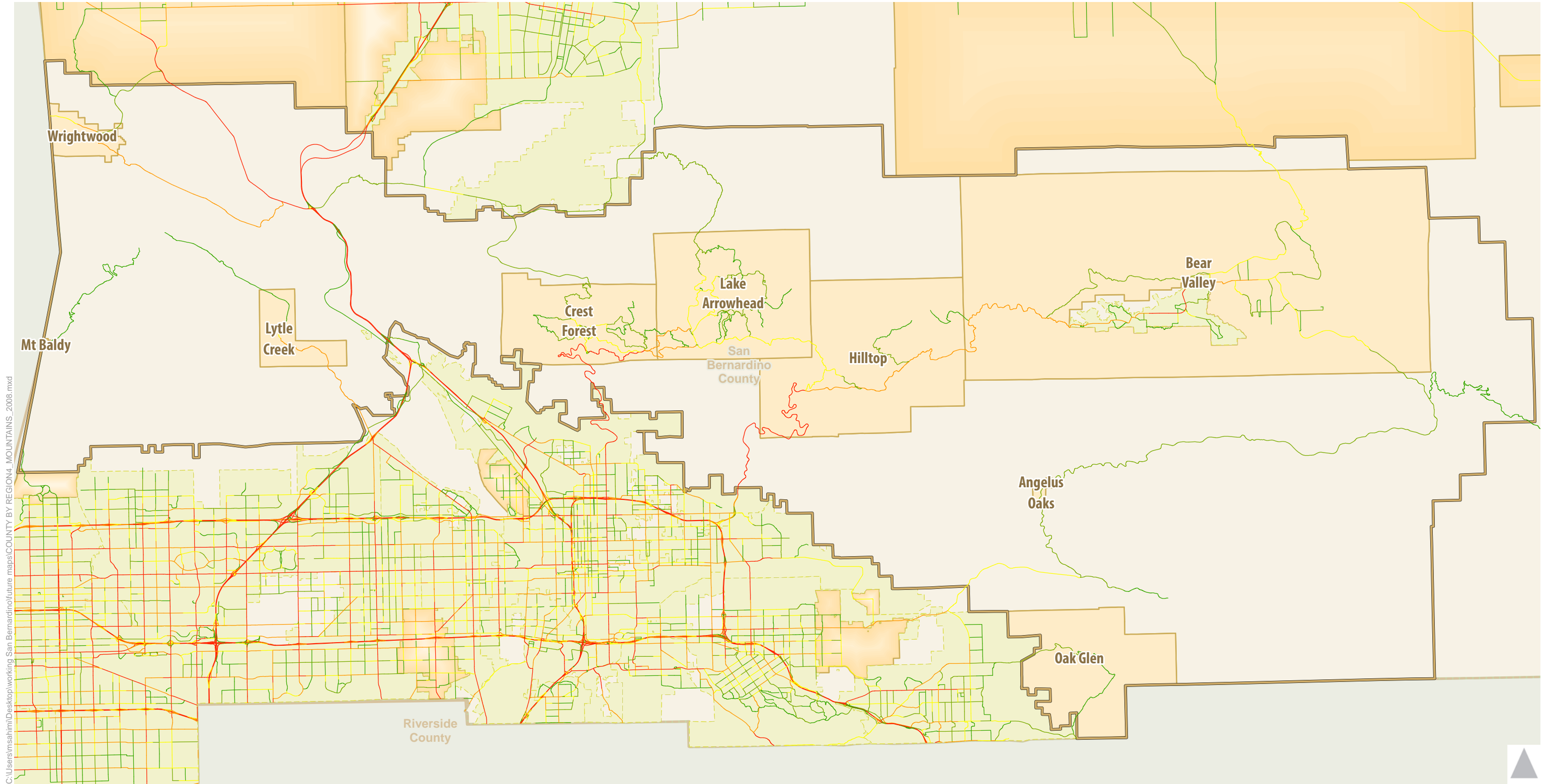


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Figure 9D



East Desert Region - Year 2035 SBTAM Daily Volumes

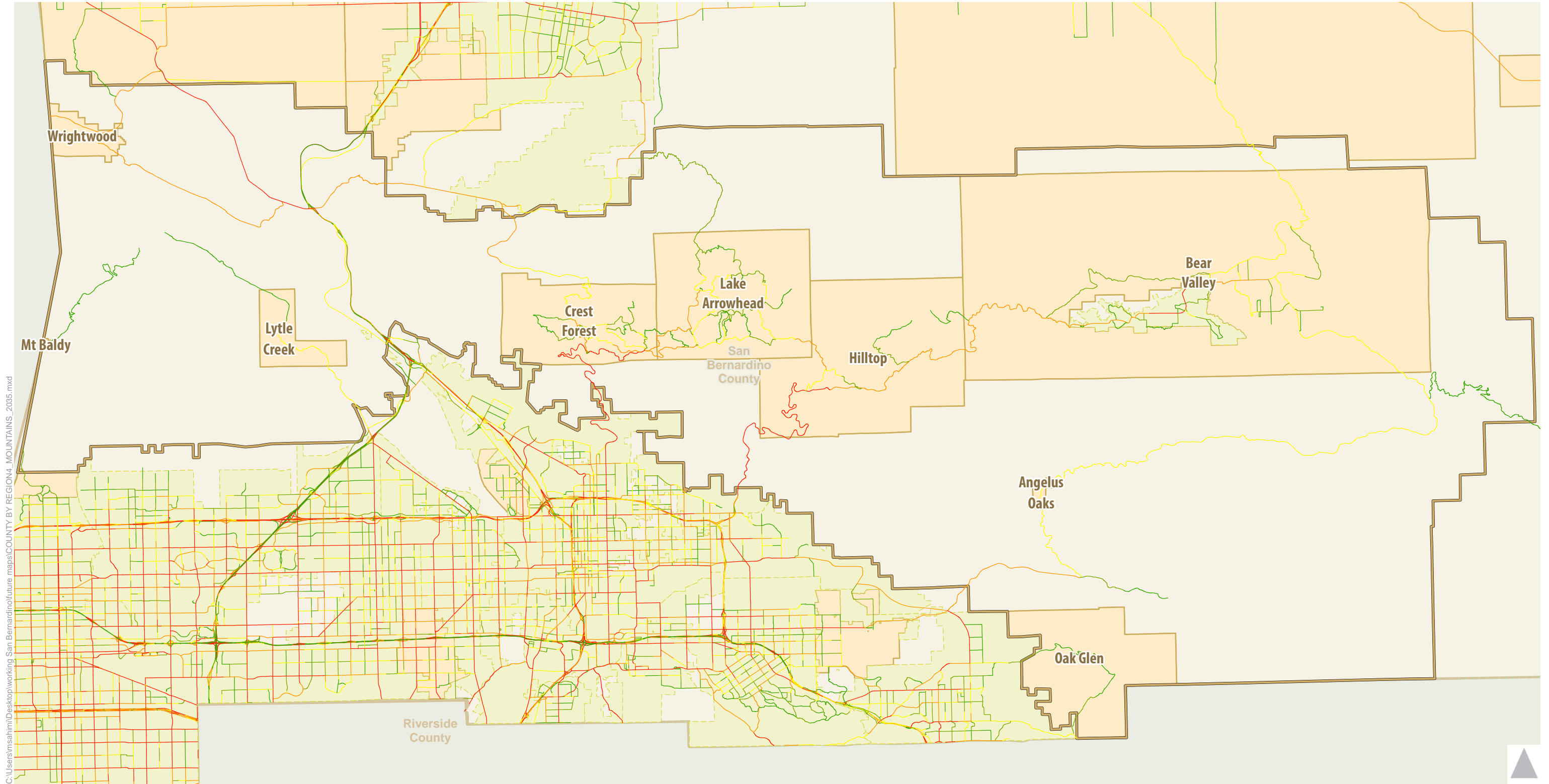


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Figure 9E

Mountain Region - Year 2008 SBTAM Daily Volumes



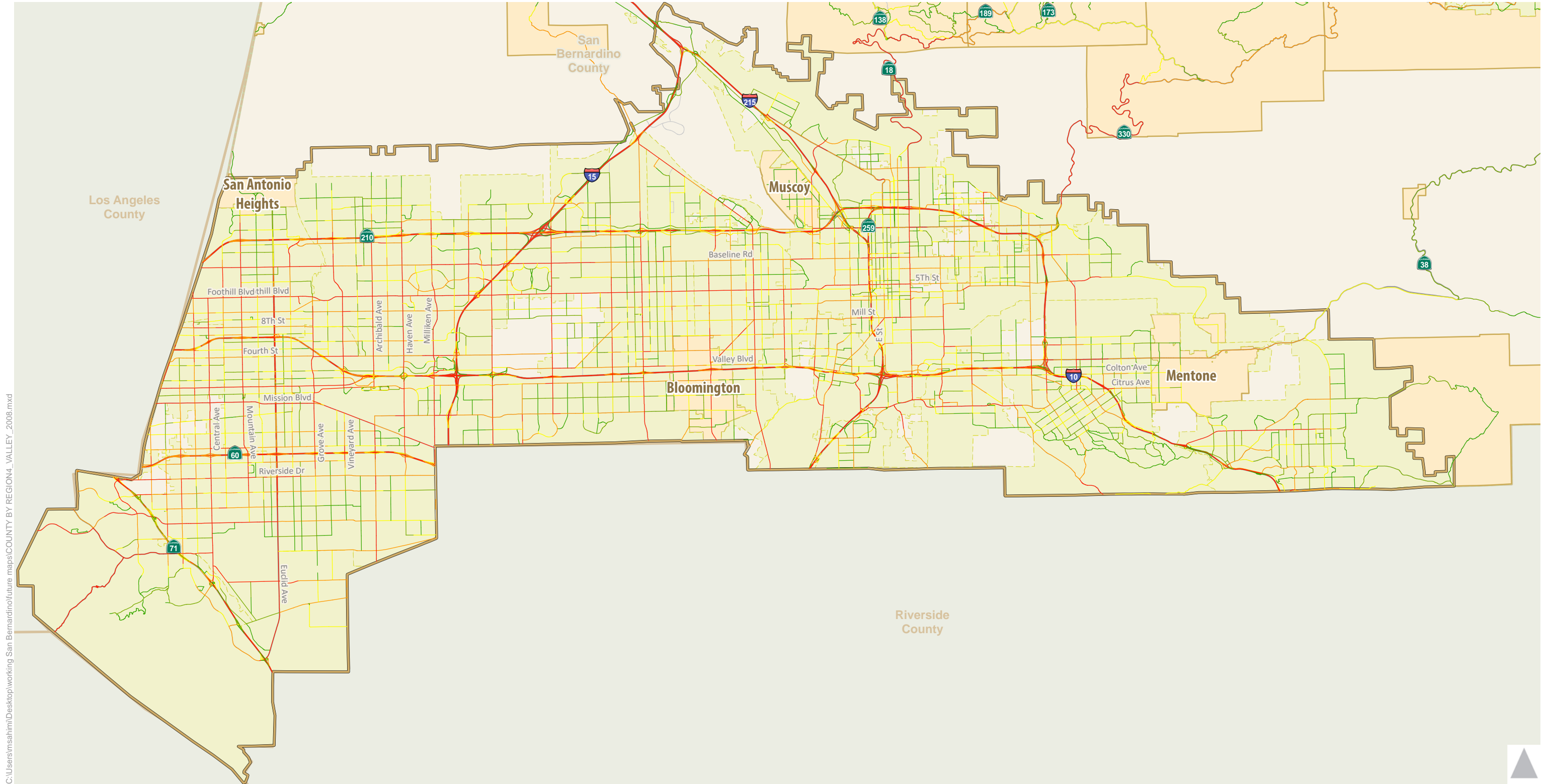


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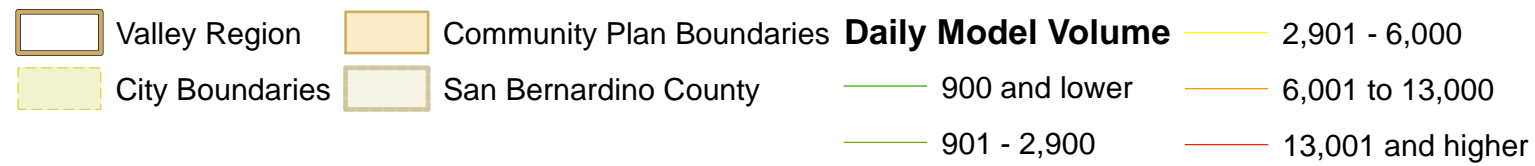
Figure 9F

Mountain Region - Year 2035 SBTAM Daily Volumes





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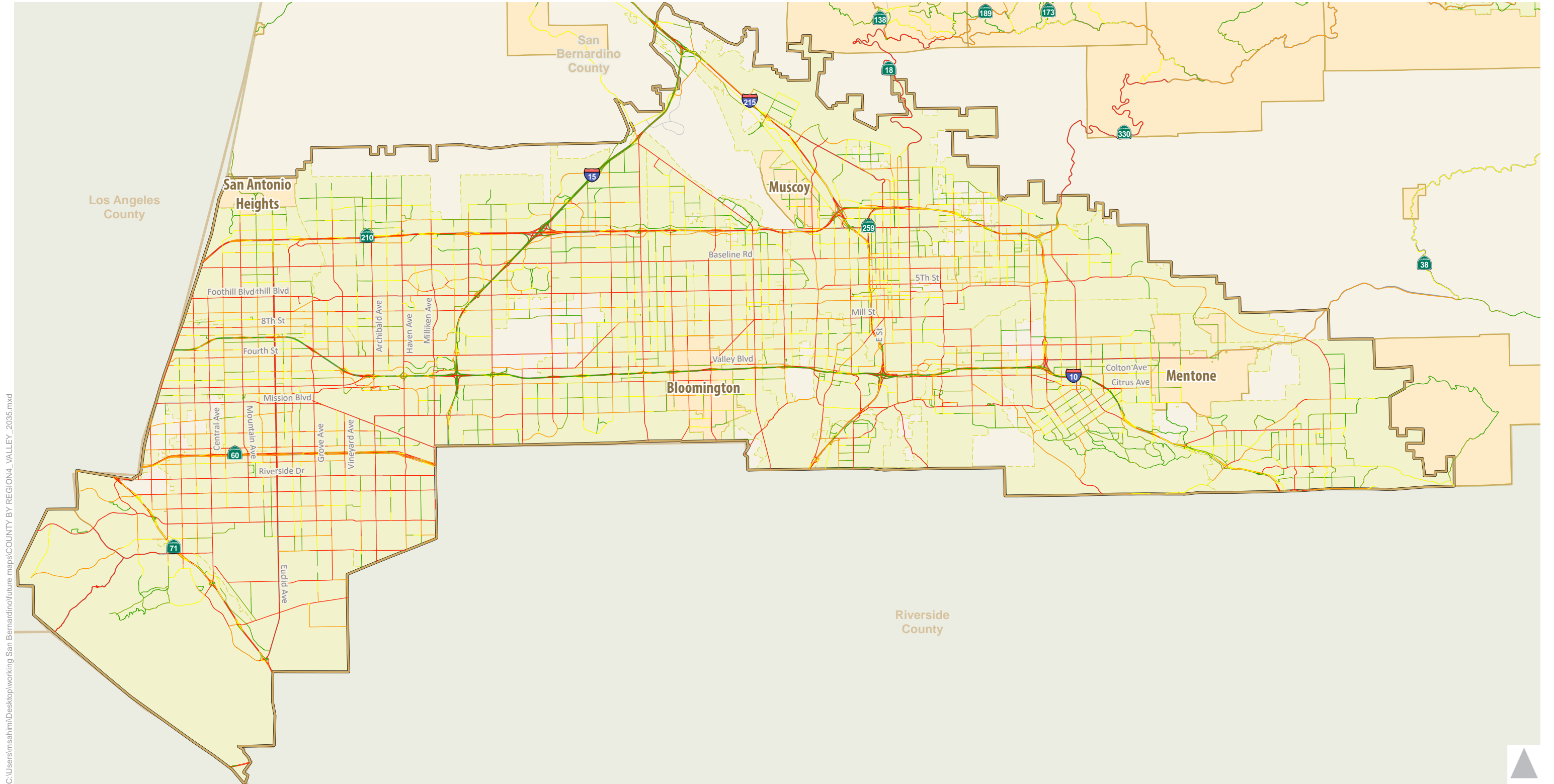


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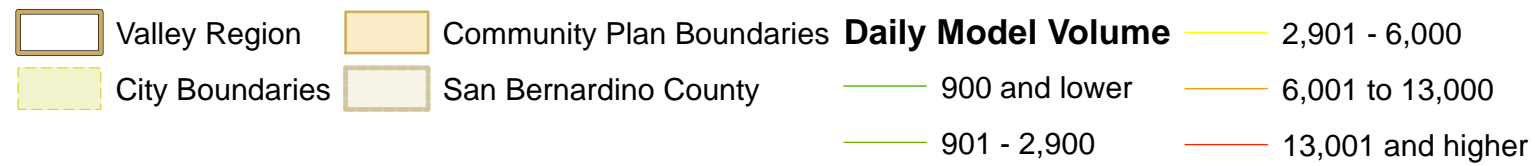
Figure 9G

Valley Region - Year 2008 SBTAM Daily Volumes





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Figure 9H

Valley Region - Year 2035 SBTAM Daily Volumes





NORTH DESERT REGION

Figure 10A shows LEHD data for resident worker commute patterns in the North Desert Region (including incorporated cities). The figure shows that 33% work within the North Desert Region, 19% work within the three other County regions, and 48% work outside of San Bernardino County. The percentage working outside of the county is slightly lower than the county average.

Tables 1 and 2 document the top worker origins and destinations specifically for unincorporated communities in the North Desert Region. As shown in the tables, several of the top origins and destinations are local communities and cities. However, a minority of workers come from or go to them. In addition, some top locations (e.g., Los Angeles, San Diego, and Riverside) are outside of the County.

Figure 10B shows the distance and directionality of commuters entering and leaving the North Desert Region's unincorporated communities. Both are skewed to the south, with significant numbers of workers coming from or going to locations more than 50 miles away.

TABLE 1
TOP WORKER ORIGINS – NORTH DESERT REGION

City/CDP	Count	Share
All Places	2,763	100.0%
Victorville city	292	10.6%
Apple Valley town	282	10.2%
Hesperia city	222	8.0%
Lucerne Valley CDP	145	5.2%
Lake Arrowhead CDP	84	3.0%
Barstow city	80	2.9%
Silver Lakes CDP	77	2.8%
San Diego city	66	2.4%
Adelanto city	52	1.9%

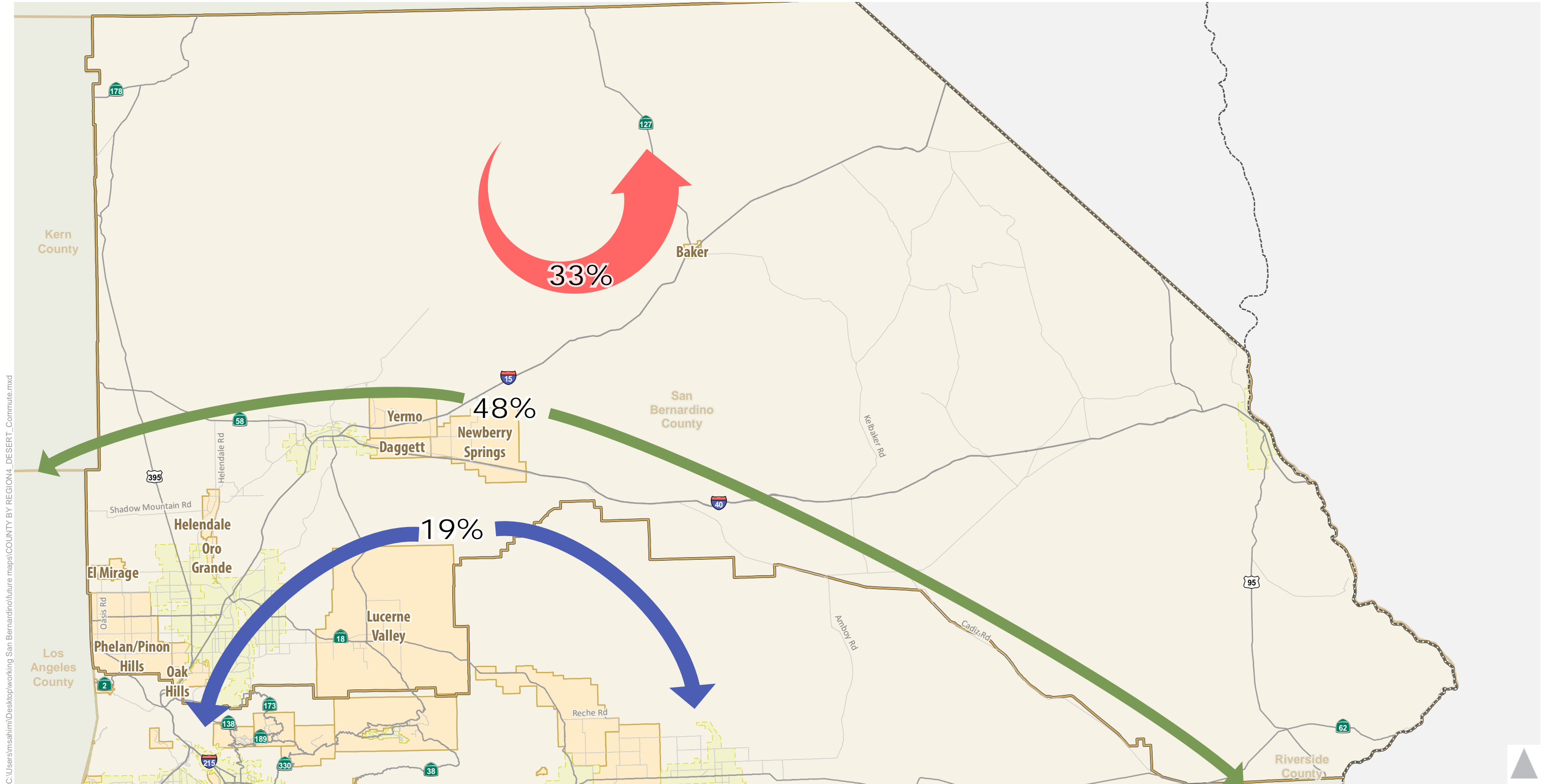


TABLE 1
TOP WORKER ORIGINS – NORTH DESERT REGION

City/CDP	Count	Share
Los Angeles city	39	1.4%
All Other Locations	1,424	51.5%

TABLE 2
TOP WORKER DESTINATIONS – NORTH DESERT REGION

City/CDP	Count	Share
All Places	7,106	100.0%
Los Angeles city	563	7.9%
Victorville city	370	5.2%
San Bernardino city	292	4.1%
Hesperia city	237	3.3%
Apple Valley town	184	2.6%
Riverside city	146	2.1%
San Diego city	143	2.0%
Barstow city	119	1.7%
Lucerne Valley CDP	119	1.7%
Rancho Cucamonga city	118	1.7%
All Other Locations	4,815	67.8%



Source: US Census Longitudinal Employer-Household Dynamics, 2014

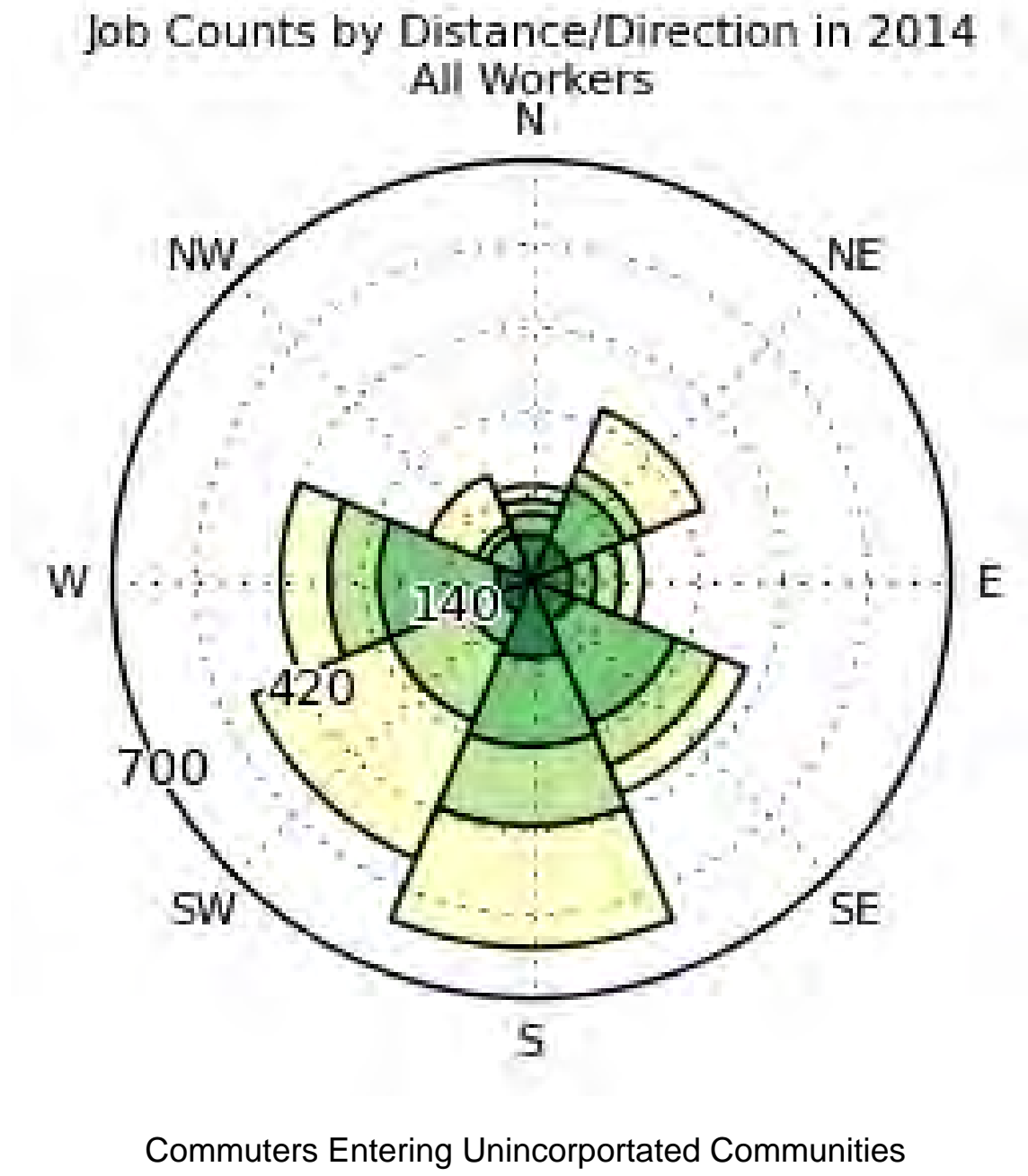
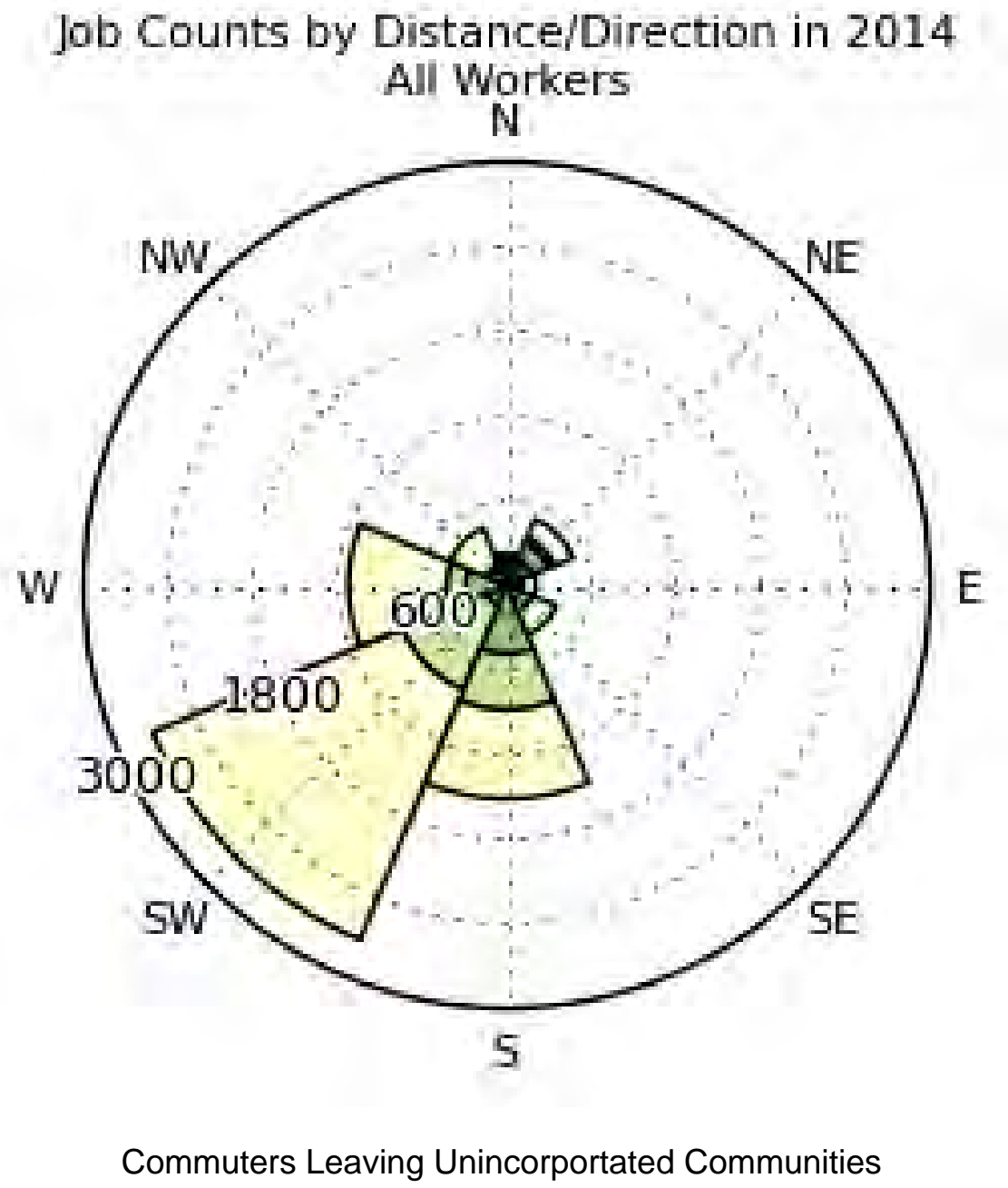
- North Desert Region
- City Boundaries
- Community Plan Boundaries
- San Bernardino County
- Work Within Region
- Work Within Other Regions
- Work Outside County

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Figure 10A

North Desert Region - Resident Commute Patterns

*Incorporated Cities and Unincorporated Communities



Source: US Census Longitudinal Employer-Household Dynamics, 2014

- | | | | |
|-----------------|---------------------------|--------------------|-----------------------|
| Valley Region | Community Plan Boundaries | Less than 10 Miles | 25 to 50 Miles |
| City Boundaries | San Bernardino County | 10 to 24 Miles | Greater than 50 Miles |



Figure 10b



EAST DESERT REGION

Figure 10C shows LEHD data for resident worker commute patterns in the East Desert Region (including incorporated cities). The figure shows that 23% work within the East Desert Region, 11% work within the three other County regions, and 66% work outside of San Bernardino County. The percentage working outside of the County is significantly higher than the County average, perhaps due to the lack of employment in the East Desert Region for local residents.

Tables 3 and 4 document the top worker origins and destinations specifically for unincorporated communities in the East Desert Region. As shown in the tables, several of the top origins are local communities and cities with a significant share of incoming workers. However, several of the top destinations (e.g., Palm Springs, Los Angeles, and Palm Desert) are more distant cities and communities.

Figure 10D shows the distance and directionality of commuters entering and leaving the East Desert Region's unincorporated communities. Outgoing workers tend to go to destinations in the west, many of them more than 50 miles away. This pattern also holds true for commuters entering, except for the fact that a significant number also enter from the northeast from locations less than 25 miles away.

TABLE 3
TOP WORKER ORIGINS – EAST DESERT REGION

City/CDP	Count	Share
All Places	271	100.0%
Morongo Valley CDP	76	28.0%
Yucca Valley town	43	15.9%
Indio city	9	3.3%
Joshua Tree CDP	9	3.3%
Palm Desert city	9	3.3%
Cathedral City city	8	3.0%
Homestead Valley CDP	6	2.2%

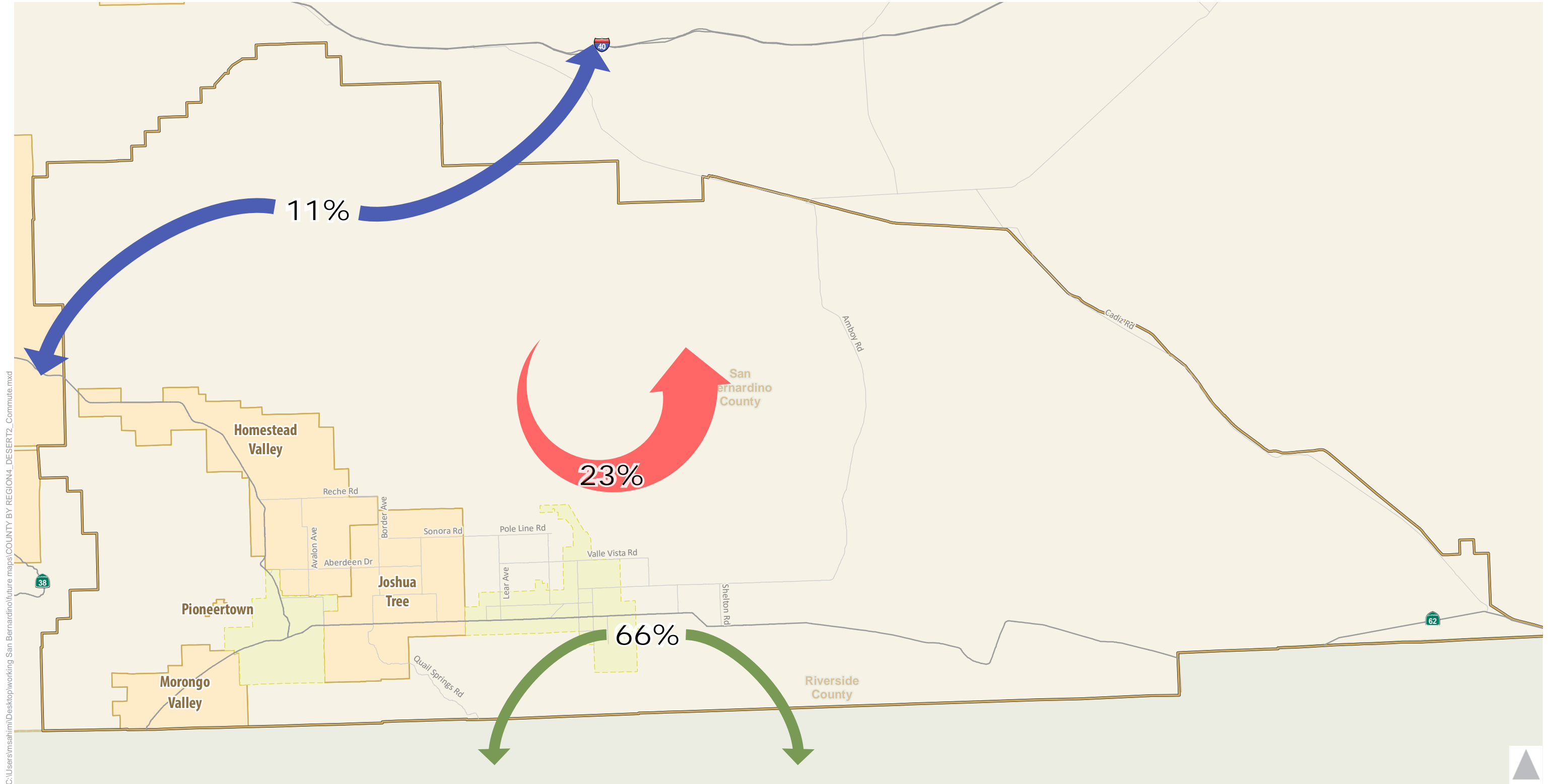


TABLE 3
TOP WORKER ORIGINS – EAST DESERT REGION

City/CDP	Count	Share
Lucerne Valley CDP	5	1.8%
Desert Hot Springs city	4	1.5%
Los Angeles city	4	1.5%
All Other Locations	98	36.2%

TABLE 4
TOP WORKER DESTINATIONS – EAST DESERT REGION

City/CDP	Count	Share
All Places	1,853	100.0%
Palm Springs city	161	8.7%
Los Angeles city	115	6.2%
Palm Desert city	79	4.3%
Morongo Valley CDP	76	4.1%
Yucca Valley town	61	3.3%
San Diego city	52	2.8%
Rancho Mirage city	48	2.6%
San Bernardino city	41	2.2%
Riverside city	40	2.2%
Cathedral City city	31	1.7%
All Other Locations	1,149	62.0%



Source: US Census Longitudinal Employer-Household Dynamics, 2014

- East Desert Region
- Community Plan Boundaries
- City Boundaries
- San Bernardino County
- Work Within Region
- Work Within Other Regions
- Work Outside County

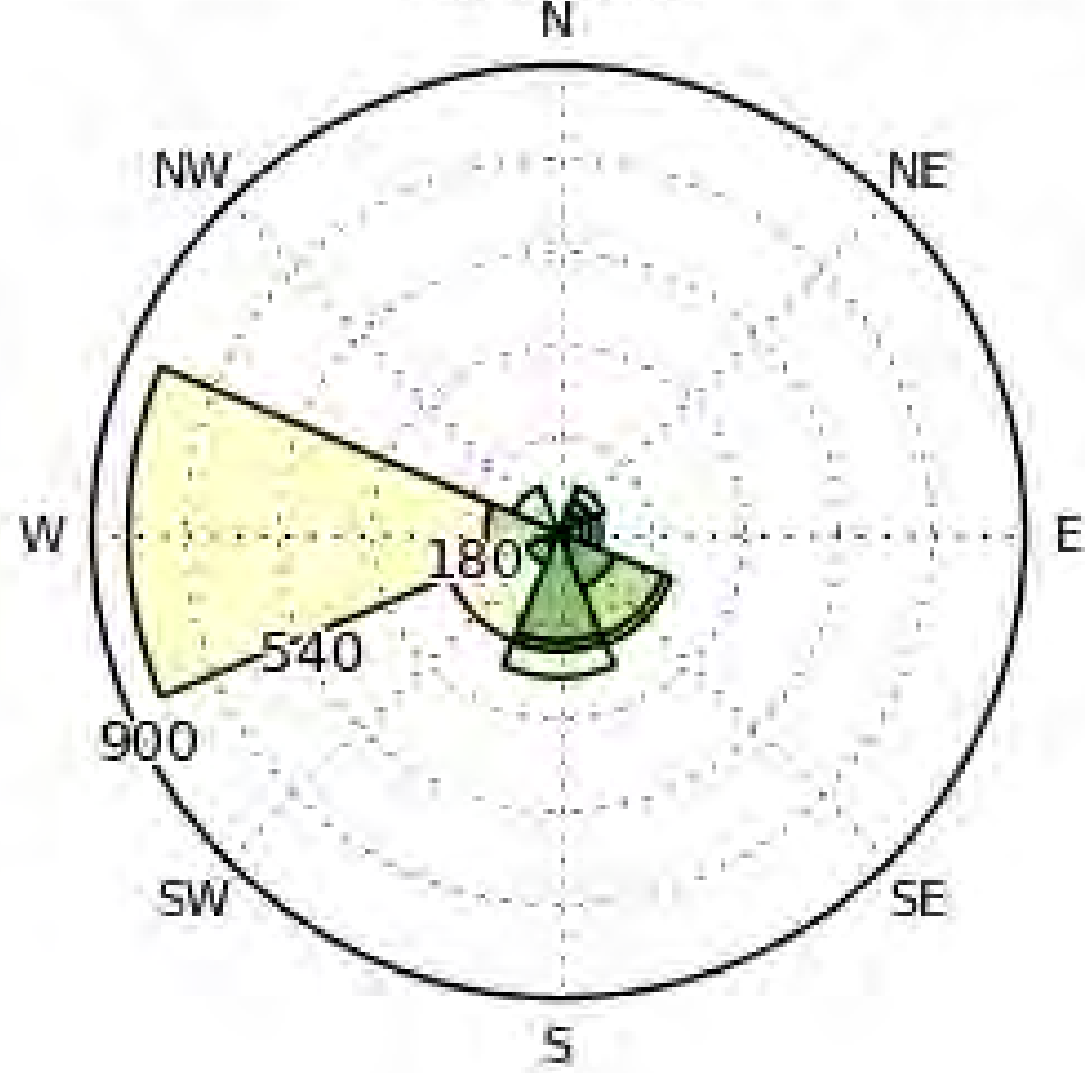
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Figure 10C

East Desert Region - Resident Commute Patterns

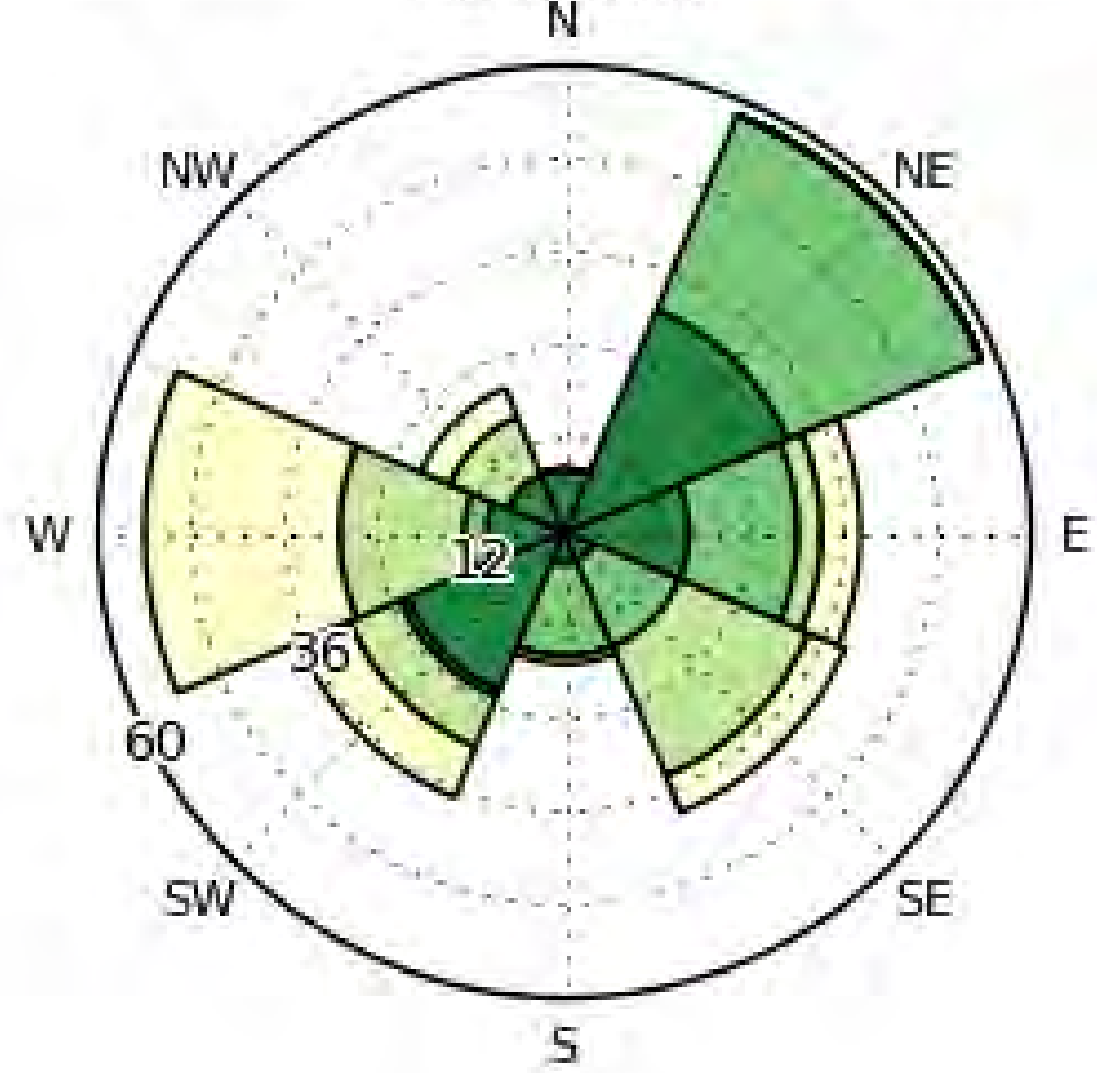
*Incorporated Cities and Unincorporated Communities

Job Counts by Distance/Direction in 2014
All Workers



Commuters Leaving Unincorporated Communities

Job Counts by Distance/Direction in 2014
All Workers



Commuters Entering Unincorporated Communities

Source: US Census Longitudinal Employer-Household Dynamics, 2014

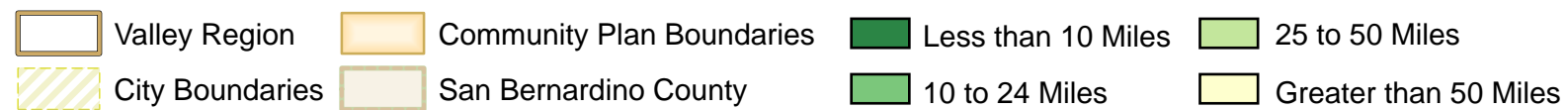


Figure 10D



MOUNTAIN REGION

Figure 10E shows LEHD data for resident worker commute patterns in the Mountain Region (including incorporated cities). The figure shows that 18% work within the Mountain Region, 23% work within the three other County regions, and 59% work outside of San Bernardino County. The percentage working outside of the County is somewhat higher than the County average, perhaps due to the lack of employment in the Mountain Region for local residents.

Tables 5 and 6 document the top worker origins and destinations specifically for unincorporated communities in the Mountain Region. As shown in the tables, several of the top origins are local communities and cities with a significant share of incoming workers. Several top destinations are also local communities and cities. However, a minority of workers travel to and from to them.

Figure 10F shows the distance and directionality of commuters entering and leaving the Mountain Region's unincorporated communities. Outgoing workers tend to go to destinations in the west, southwest, and south, many of them more than 50 miles away. Incoming workers generally arrive from locations either to the west, southeast, and east more than 50 miles away. However, a significant number also enter from multiple directions from nearby locations less than 10 miles away.

TABLE 5
TOP WORKER ORIGINS – MOUNTAIN REGION

City/CDP	Count	Share
All Places	695	100.0%
Wrightwood CDP	79	11.4%
Yucaipa city	65	9.4%
Lake Arrowhead CDP	37	5.3%
Phelan CDP	37	5.3%
Pinon Hills CDP	36	5.2%
San Bernardino city	23	3.3%
Hesperia city	21	3.0%

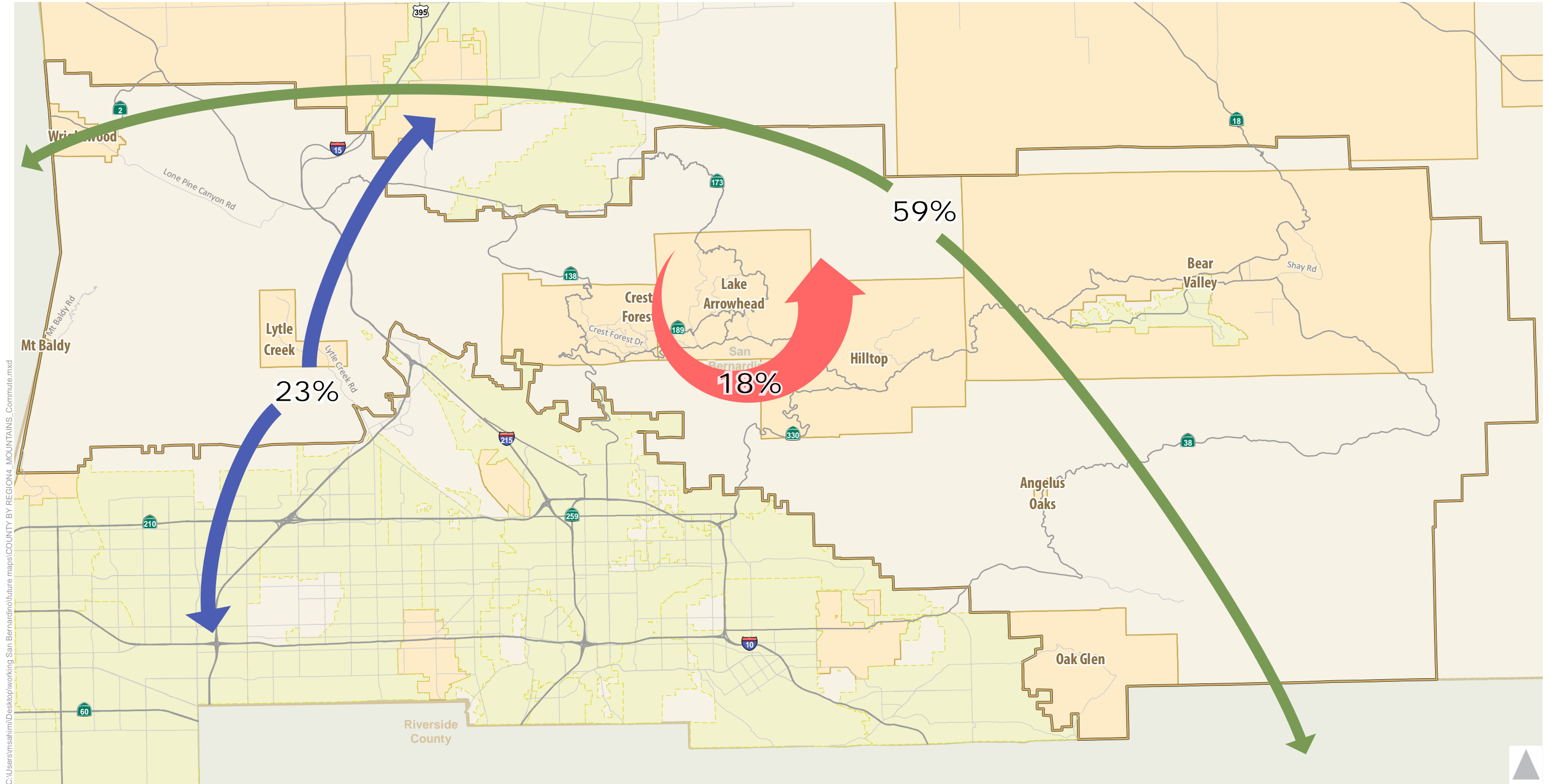


TABLE 5
TOP WORKER ORIGINS – MOUNTAIN REGION

City/CDP	Count	Share
Redlands city	20	2.9%
Fontana city	18	2.6%
Highland city	14	2.0%
All Other Locations	345	49.6%

TABLE 6
TOP WORKER DESTINATIONS – MOUNTAIN REGION

City/CDP	Count	Share
All Places	1,962	100.0%
Los Angeles city	137	7.0%
San Bernardino city	134	6.8%
Wrightwood CDP	82	4.2%
Rancho Cucamonga city	78	4.0%
Riverside city	71	3.6%
Lake Arrowhead CDP	60	3.1%
Ontario city	59	3.0%
Redlands city	55	2.8%
Phelan CDP	54	2.8%
Fontana city	49	2.5%
All Other Locations	1,183	60.3%



Source: US Census Longitudinal Employer-Household Dynamics, 2014

- Mountain Region
- Community Plan Boundaries
- City Boundaries
- San Bernardino County
- Work Within Region
- Work Within Other Regions
- Work Outside County

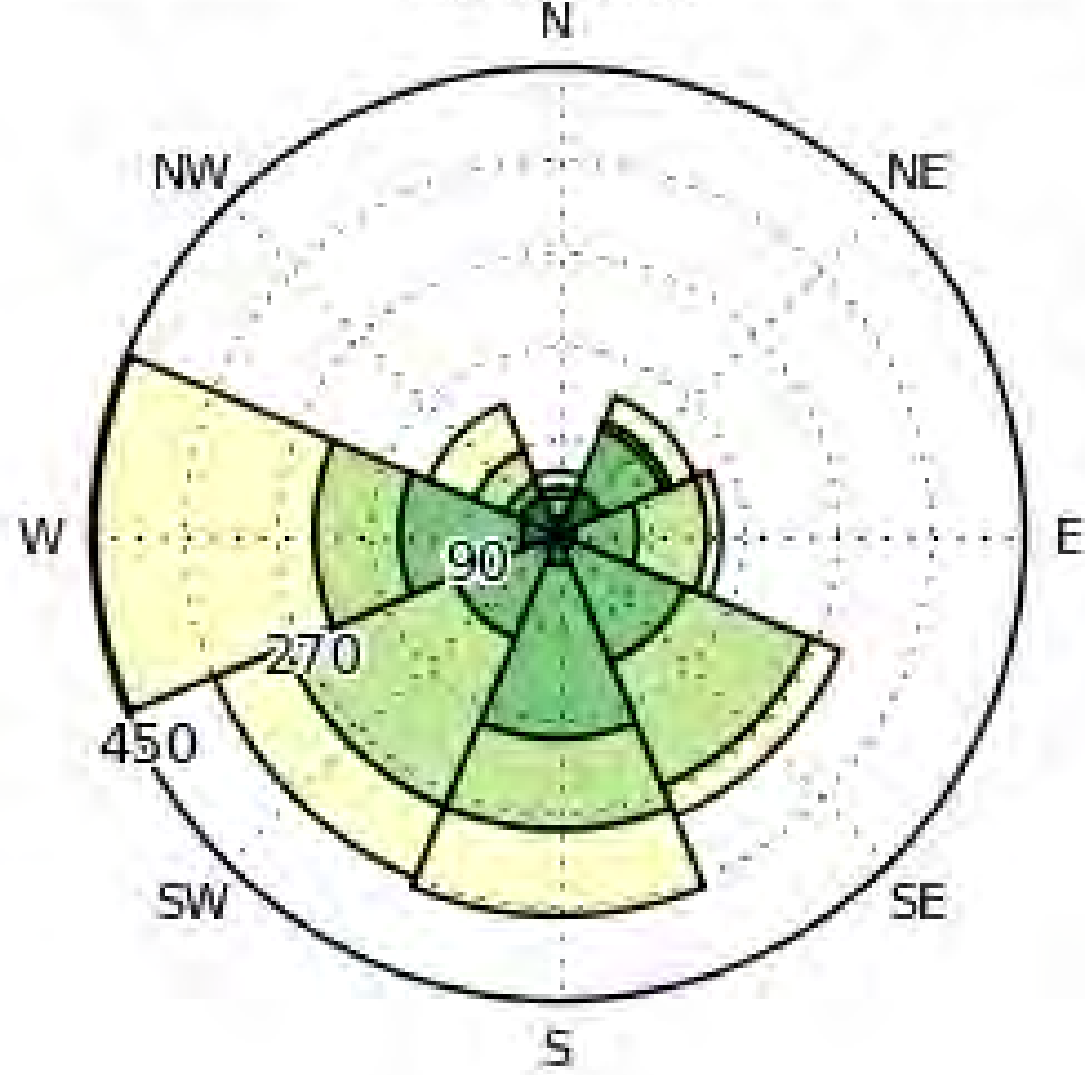
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Figure 10E

Mountain Region - Resident Commute Patterns

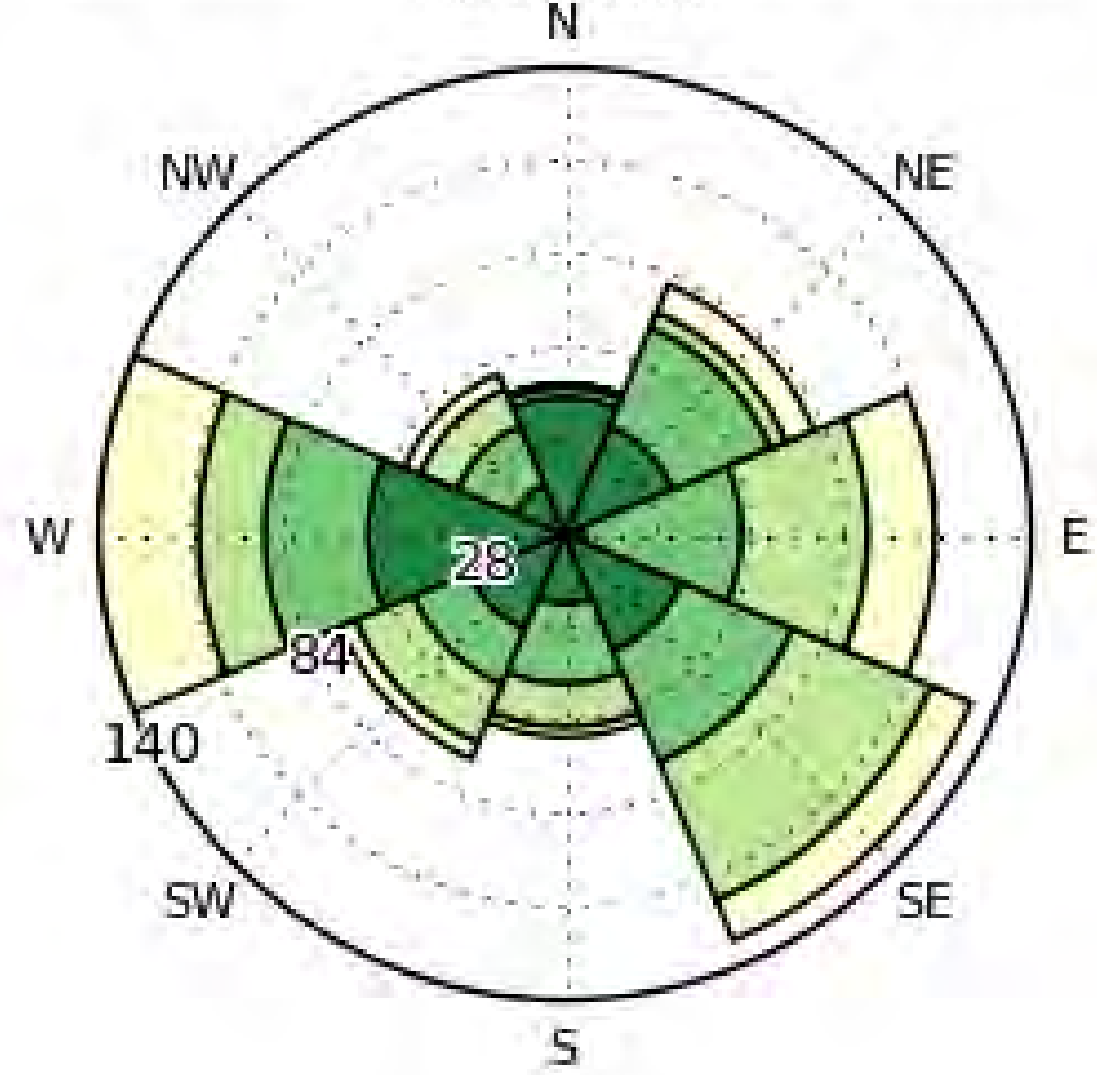
*Incorporated Cities and Unincorporated Communities

Job Counts by Distance/Direction in 2014
All Workers



Commuters Leaving Unincorporated Communities

Job Counts by Distance/Direction in 2014
All Workers



Commuters Entering Unincorporated Communities

Source: US Census Longitudinal Employer-Household Dynamics, 2014

Valley Region Community Plan Boundaries Less than 10 Miles 25 to 50 Miles
City Boundaries San Bernardino County 10 to 24 Miles Greater than 50 Miles



Figure 10F



VALLEY REGION

Figure 10G shows LEHD data for resident worker commute patterns in the Valley Region (including incorporated cities). The figure shows that 18% work within the Valley Region, 23% work within the three other County regions, and 59% work outside of San Bernardino County. The percentage working outside of the County is approximately the same as the County average.

Tables 7 and 8 document the top worker origins and destinations specifically for unincorporated communities in the Valley Region. As shown in the tables, several of the top origins are local communities and cities with a significant portion of incoming workers. This also holds true for the top worker destinations; however, a few are located a significant distance from the region.

Figure 10H shows the distance and directionality of commuters entering and leaving the Valley Region's unincorporated communities. Outgoing workers tend to go to destinations in the west, many of them more than 50 miles away. This pattern also holds true for commuters entering, except for the fact that a significant number also enter from multiple directions from nearby locations less than 10 to 25 miles away.

TABLE 7
TOP WORKER ORIGINS – VALLEY REGION

City/CDP	Count	Share
All Places	5,131	100.0%
San Bernardino city	482	9.4%
Redlands city	363	7.1%
Fontana city	294	5.7%
Riverside city	227	4.4%
Yucaipa city	216	4.2%
Rialto city	196	3.8%
Moreno Valley city	175	3.4%
Highland city	145	2.8%

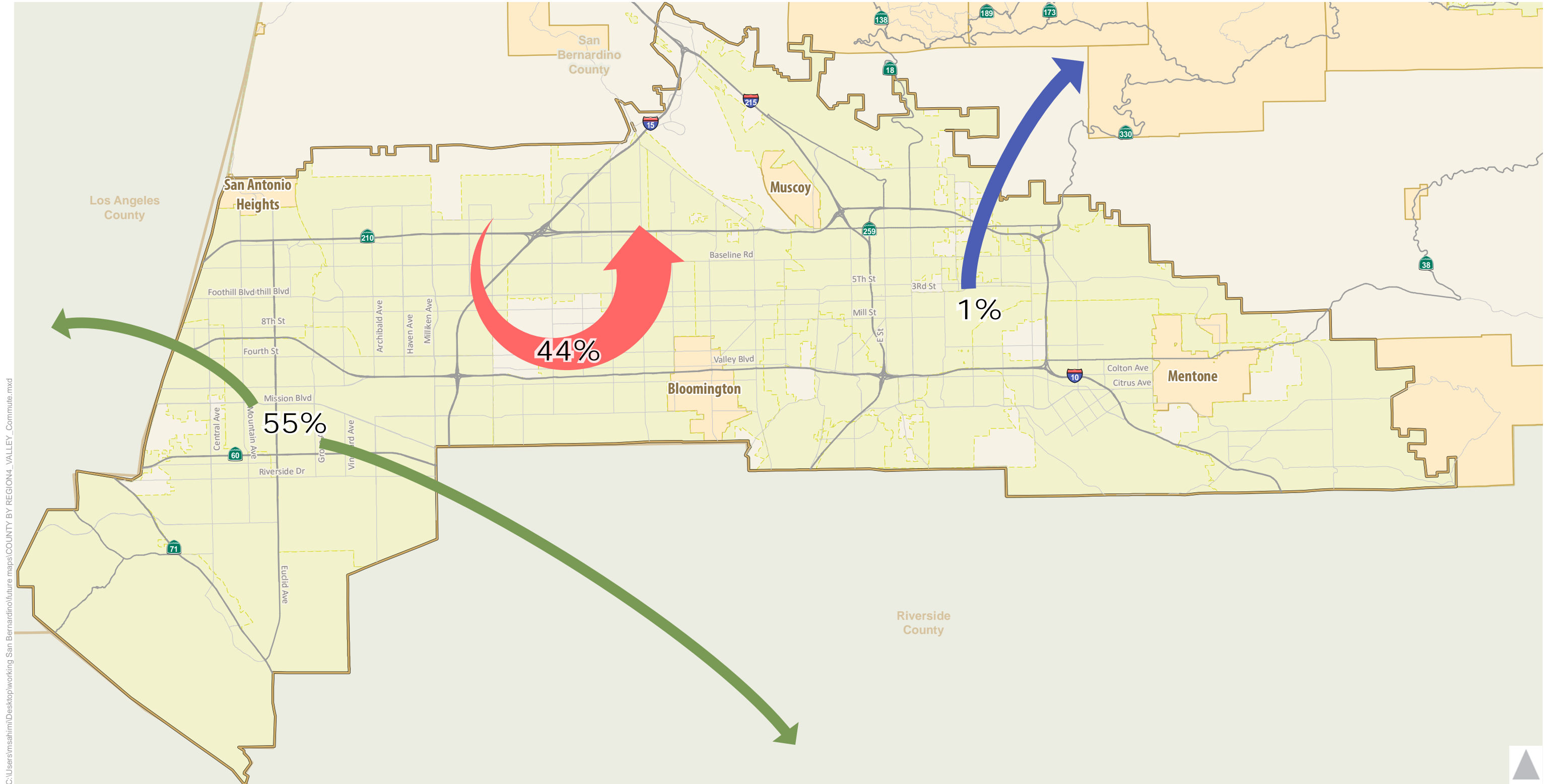


TABLE 7
TOP WORKER ORIGINS – VALLEY REGION

City/CDP	Count	Share
Bloomington CDP	144	2.8%
Colton city	137	2.7%
All Other Locations	2,752	53.6%

TABLE 8
TOP WORKER DESTINATIONS – VALLEY REGION

City/CDP	Count	Share
All Places	16,133	100.0%
San Bernardino city	1,799	11.2%
Ontario city	975	6.0%
Riverside city	959	5.9%
Fontana city	925	5.7%
Redlands city	803	5.0%
Rancho Cucamonga city	752	4.7%
Los Angeles city	720	4.5%
Rialto city	487	3.0%
Colton city	436	2.7%
Jurupa Valley city	330	2.0%
All Other Locations	7,947	49.3%



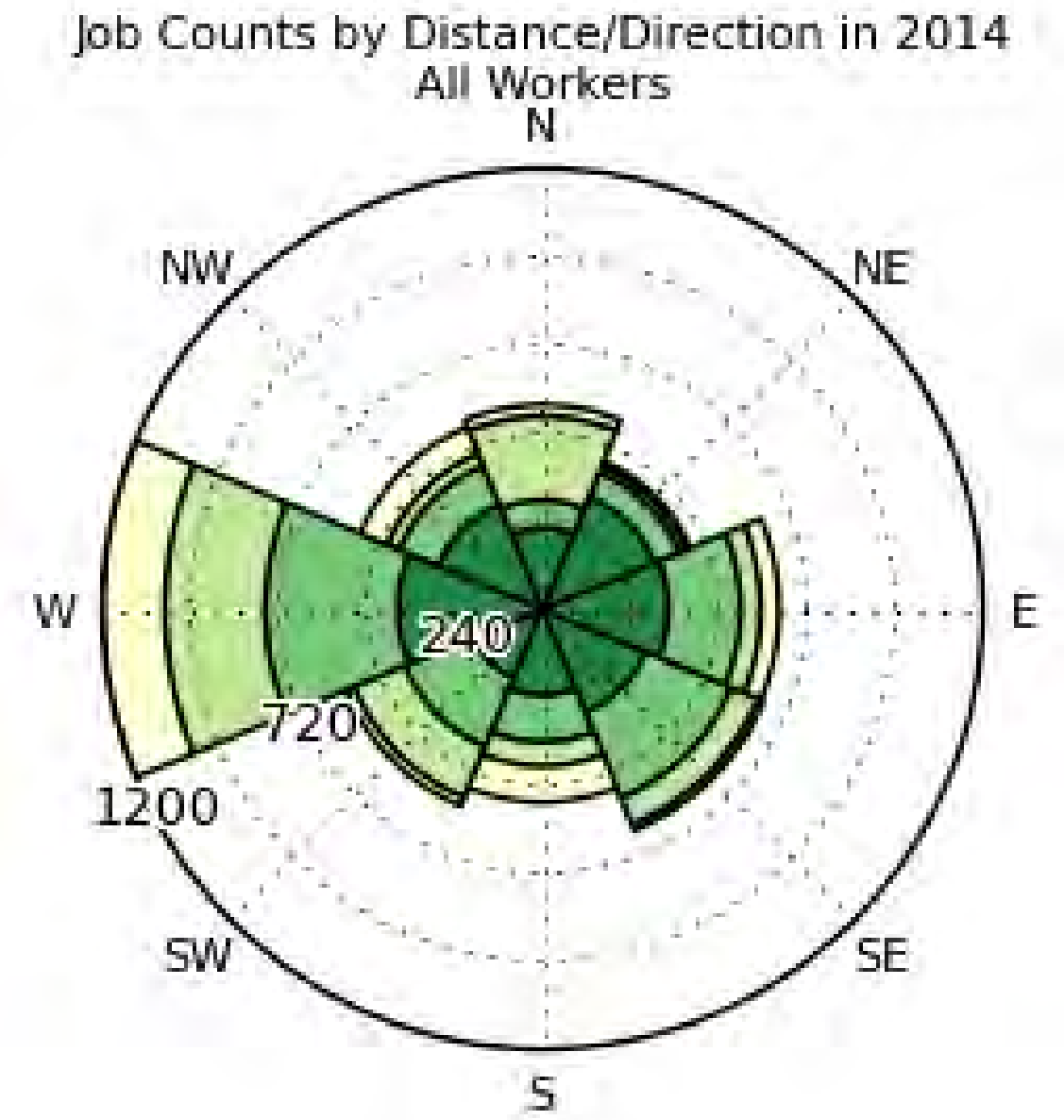
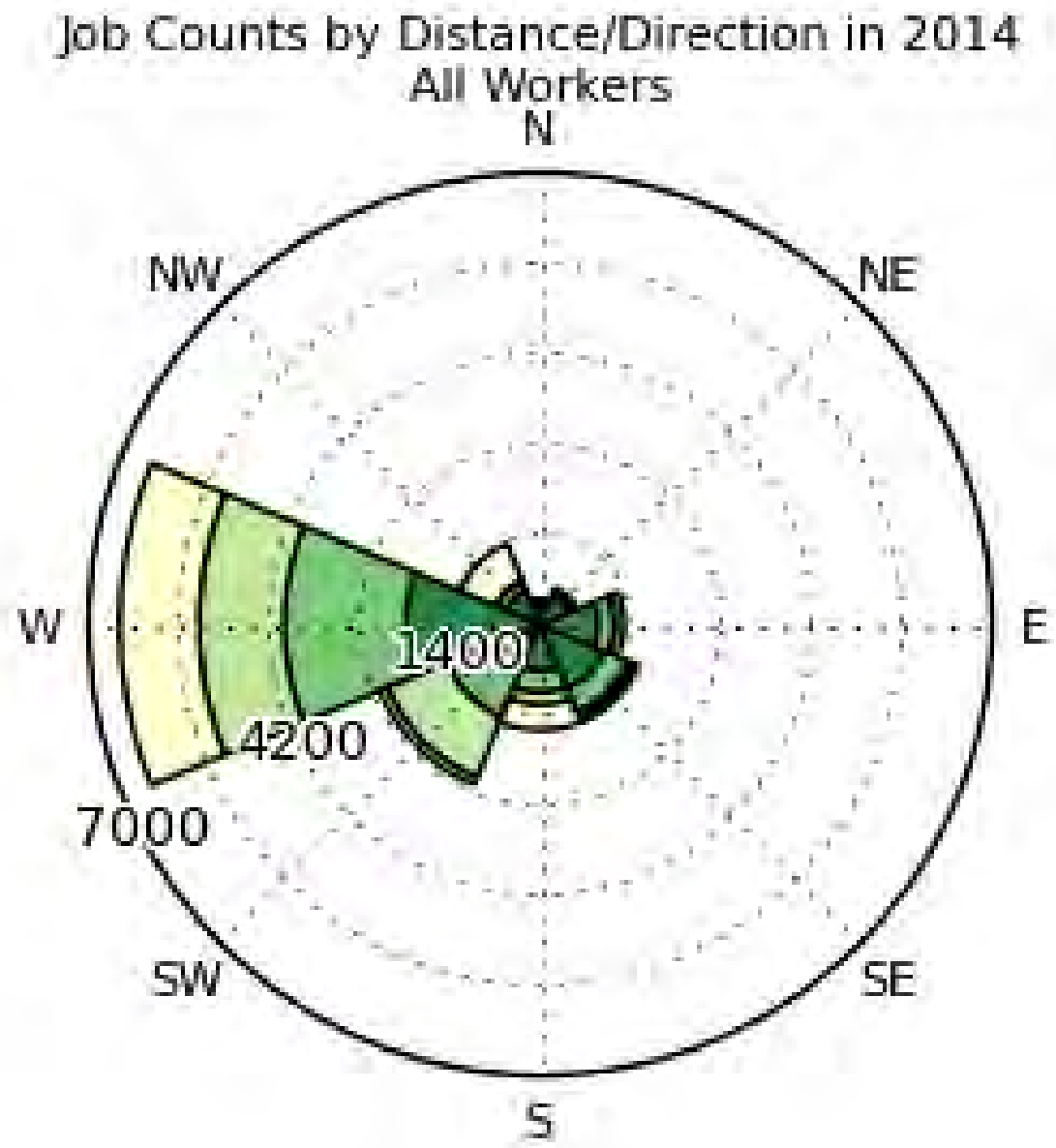
- Valley Region
- Community Plan Boundaries
- City Boundaries
- San Bernardino County
- Work Within Region
- Work Outside County
- Work Within Other Regions

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Figure 10G

Valley Region - Resident Commute Patterns

*Incorporated Cities and Unincorporated Communities



Source: US Census Longitudinal Employer-Household Dynamics, 2014

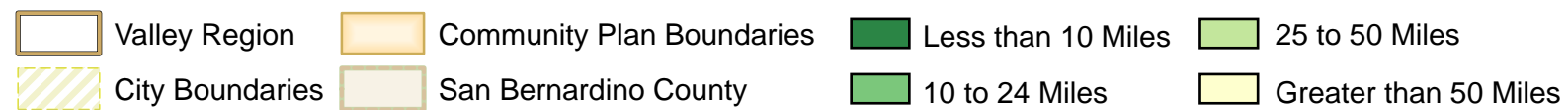


Figure 10H

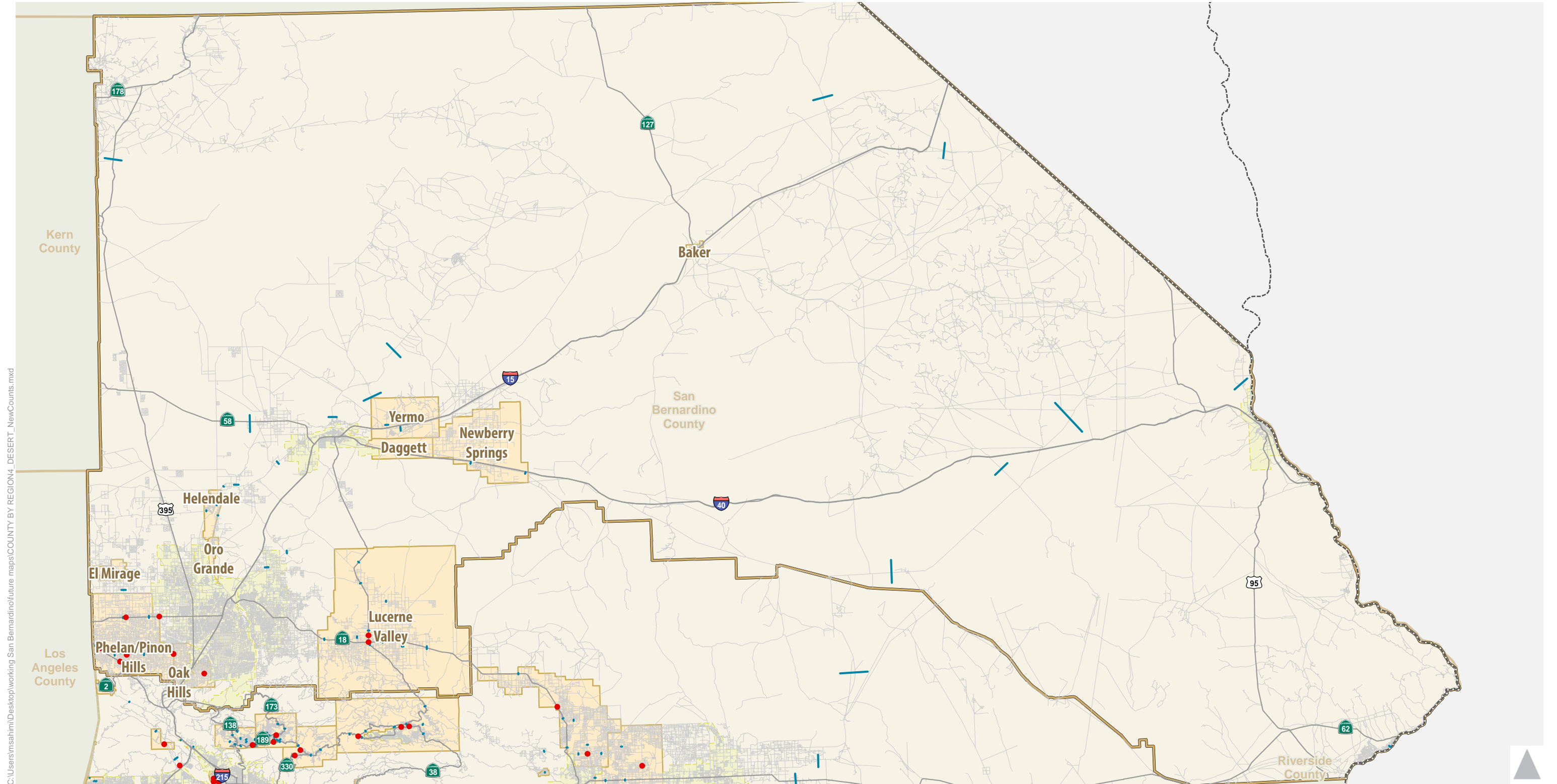


PROPOSED COUNT LOCATIONS

In consultation with staff, Fehr & Peers has selected locations throughout the County for peak hour intersection and daily roadway segment vehicle volume counts. This data will be used throughout the General Plan Update process to analyze the potential level of service impacts of various growth scenarios. In total, 39 intersections and 160 roadway segments were selected. The regional breakdown of the number of count locations is provided in Table 9. Figures 11A through 11D show these locations.

TABLE 9
GENERAL PLAN UPDATE COUNT LOCATION COUNT

Region	Intersections	Segments
North Desert	10	54
East Desert	4	23
Mountain	9	42
Valley	16	41



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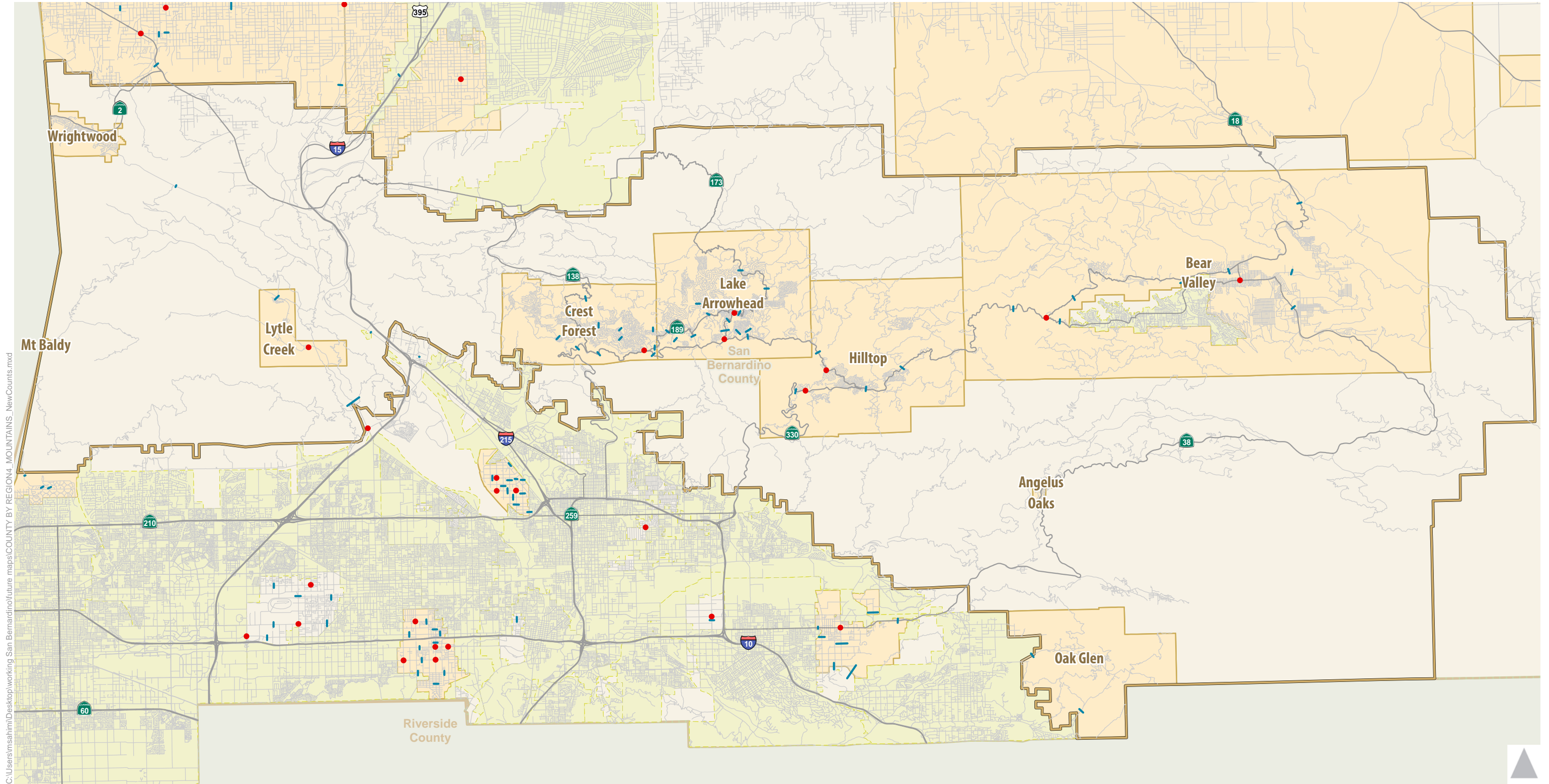
- Intersections
- Roadway Segments
- North Desert Region
- Community Plan Boundaries
- City Boundaries
- San Bernardino County



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Figure 11A

North Desert Region - Count Locations

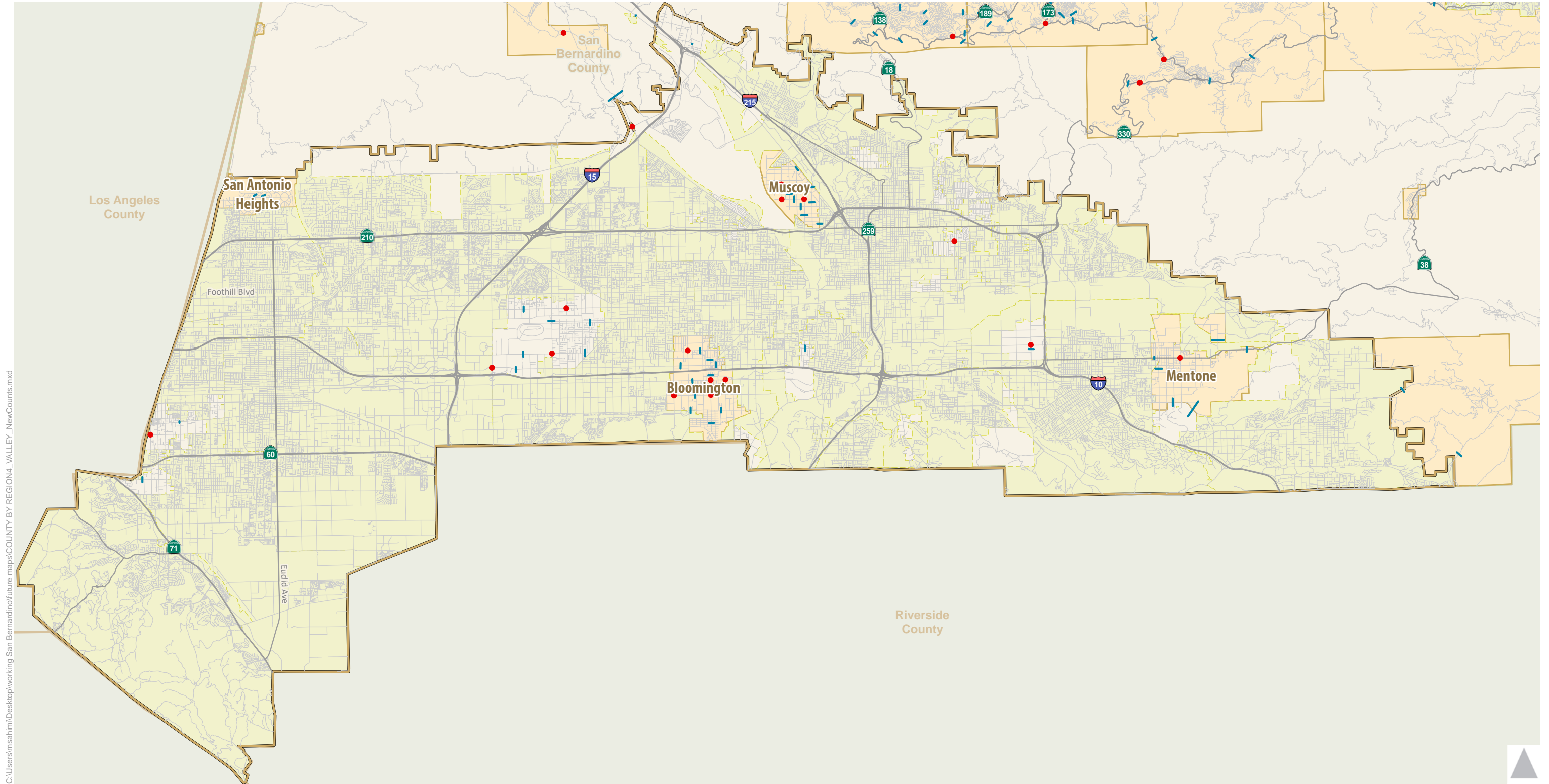


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Figure 11C

Mountain Region - Count Locations





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- Intersections
- Roadway Segments
- ▭ Valley Region
- ▨ City Boundaries
- ▨ Community Plan Boundaries
- ▨ San Bernardino County



Figure 11D

Valley Region - Count Locations



SUMMARY AND CONCLUSIONS

This memo documented several existing transportation issues and future trends that the County should be cognizant of as the Countywide General Plan is updated. These issues are summarized below.

FUTURE ROADWAY NETWORK

- Several roadway improvements are slated for County roadways in the coming decades according to the SCAG RTP/SCS. In addition, the previous Countywide General Plan proposed a wide network of future roadways, many of which do not overlap with the funded RTP projects. The County should strive to develop a proposed roadway network consistent with the RTP and ensure proposed roadway improvements are funded.
- SANBAG is currently undertaking the Mountain Area Transportation Study (MATS), which will identify and analyze roads and intersections that provide access to, from, and within the Mountain Region's communities. Upon completion, the study's results will be incorporated into the General Plan Update. Feedback from stakeholders regarding existing issues along Mountain roadways has included:
 - Lack of shoulder lanes or pullouts along some roadways, including near scenic vistas
 - Visibility and sight distance issues
 - Steep grade that is difficult to navigate in winter conditions
 - Lack of turn pockets on some roads
 - Lack of wide roads
 - Conflicts between local and tourist traffic, especially during peak season
 - Lack of alternative routes
- Currently, the County relies on two different programs to generate fees to construct roadway improvements, whether it is building new roads, expanding or improving existing roads, paving existing dirt roads, installing traffic signals, or other improvements. Local Fee Plans generate funds for road improvements within an adopted Plan to mitigate development impacts. A fee is levied on residential and non-residential projects based on the projected increase in traffic; as fees accumulate, projects are completed in the order of their priority. In addition, the Regional Transportation Mitigation Plan collects fees from



- new developments for improvements to roads in specified cities' spheres of influence within the Valley Region and the Victor Valley area. However, fees can take many years to accumulate and construction expenses are rising, meaning many projects have yet to begin. The County should work to develop realistic construction cost forecasts that take rising costs and other trends into account.
- Since many roads traverse multiple jurisdictions (whether the County or incorporated Cities), there can be issues with raising funds and implementing improvements. In addition, several roads in the County are under Caltrans control; this especially holds true in the Mountain Region, where many major roads such as State Routes 18, 38, and 173 are under Caltrans jurisdiction and provide the sole means of access in many communities. The County should focus on coordinating with Caltrans, SANBAG, and other jurisdictions to finance and implement improvements across boundaries. The County should also work with Caltrans to mitigate the impacts of state highway projects on local communities, especially in the Mountain Region.
 - Within the County, there are 441 CMP monitored intersections along the County's major highways and arterials, which also form the CMP Network. The minimum acceptable LOS under the CMP is LOS E, which is less rigorous than the County's standards (LOS C or D depending on the Region and facility). Most analyzed roadway segments in the Existing Conditions Report performed acceptably under the County standards. However, the County should be aware of the CMP intersections within both incorporated and unincorporated communities and reduce impacts that can degrade performance along these facilities due to future development and growth.
 - As roads are improved and constructed in the future, the County should work with local jurisdictions to minimize inconsistencies in roadway right-of-way and capacity across boundaries.

SCENIC ROUTES AND TRAILS

- Throughout San Bernardino County are vast undeveloped tracts of land that offer significant scenic vistas. State Designated Scenic Highways, County Designated Scenic Routes, and the Regional Trails network offer residents and visitors a chance to enjoy these natural amenities. However, future growth and development can increase pressure on these areas. The County should ensure that these facilities continue to be preserved and maintained with future growth and consider adding additional locations under these designations if deemed necessary.



EXISTING BRIDGES AND DEFICIENCIES

- Aging bridges in the County can present issues related to safety and evacuation routes in times of natural disasters or other emergencies. Of the 535 local agency bridges in San Bernardino County, the FHWA considers 257 of them deficient (deficiency data on the 899 state highway bridges was not available at the time of this report). The Federal Highway Administration (FHWA) considers bridges deficient if they are structurally deficient, functionally obsolete, or have a sufficiency rating below 81 (out of 100). Existing deficiencies and future degradation will require repair and investment. Furthermore, bridge health can be affected by future growth and vehicle travel patterns.
- In the North Desert Region, 122 local agency bridges have been deemed deficient. These include several in Phelan/Pinon Hills, Helendale, Yermo, Daggett, and Baker. A significant number of deficient bridges run along National Trails Highway; reasons for deficiency primarily consist of low sufficiency ratings. However, Interstate 40 provides parallel capacity to these deficient bridges. In Helendale and Phelan/Pinon Hills, the primary issue with deficient bridges is structural deficiency; some bridges also suffer from sufficiency ratings below 81.
- In the East Desert Region, 14 local agency bridges have been deemed deficient – all on the National Trails Highway along the region's northern boundary primarily for low sufficiency ratings.
- In the Mountain Region, 12 local agency bridges are deficient, in locations such as Lytle Creek and Crest Forest. In Lytle Creek, this is due to a low sufficiency rating and functional obsolescence, while reasons in Crest Forest consist of functional obsolescence and structural deficiency.
- In the Valley Region, there are 109 local agency bridges that are deficient. Reasons for being deemed deficient vary widely across the region but structural deficiency and functional obsolescence are common. In addition, several bridges that cross the San Antonio Creek Channel are functionally obsolete or have low sufficiency ratings.

PUBLIC TRANSIT

- Several planned transit projects in the County will substantially improve public transit access and quality in the coming years. These projects can increase residents' and workers' transit options, provide opportunities to move away from the automobile, and drive growth in the region. However, these improvements are not evenly distributed.
- There are no planned transit improvements in the East Desert Region. Current bus service does not provide connectivity to existing and proposed rail and bus rapid transit service in



- the Valley and North Desert Regions. In addition, SCAG does not project any HQTAs or TPAs in this Region. Transit access for unincorporated communities in this Region is overall limited, with buses routes on only one or two major roads.
- There are no planned transit improvements in the Mountain Region. Existing bus service does provide connectivity to existing and proposed rail stations and bus rapid transit service in the Valley Region; however, there is no direct connectivity to transit in the North Desert Region, including the proposed XpressWest. In addition, there is a lack of existing transit service in Lytle Creek, Oak Glen, and Mt. Baldy, and there is no direct connectivity between Wrightwood and other Mountain and Valley Region areas. SCAG does not project any HQTAs or TPAs in this Region.
 - The North Desert Region would benefit from the proposed XpressWest high speed rail with its connectivity to Metrolink lines to Los Angeles; however, SCAG projects very limited HQTAs and TPAs in this area (near Barstow Station and the proposed Victorville Station). Bus routes running along Interstate 15 do provide connectivity to the south. However, some North Desert communities (Newberry Springs, Daggett, and El Mirage) currently have no transit service while in other communities (Phelan/Pinon Hills, Oak Hills, Lucerne Valley, and Yermo) transit service is only provided along one or two major roads.
 - The Valley Region does benefit from several planned projects including High Speed Rail Phase 2, a rail extension to Redlands, and several new BRT routes along Foothill Boulevard, San Bernardino Avenue, Sierra Avenue, Riverside Avenue, E Street, and several other arterials throughout the Region; SCAG projects a significant number of HQTAs and TPAs in the region. However, this coverage does not reach most unincorporated communities in the Valley Region. The only community projected to have a HQTA is Bloomington (specifically, north of Valley Boulevard). There are no HQTAs or TPAs projected for San Antonio Heights, Muscoy, or Mentone. In addition, there is no existing bus transit service in San Antonio Heights that would provide connectivity to existing and proposed rail and bus rapid transit service.
 - HQTAs and TPAs are locations primed for investment and development in the coming decades. A lack of HQTAs and TPAs in unincorporated communities can result in missed opportunities for the County.
 - The County should coordinate with local transit agencies to improve connectivity to and from the County's communities, especially to future rail and bus rapid transit service.

AIRPORTS

- There are currently 53 airports and airfields operating in San Bernardino County. SCAG has projected cargo and passenger air traffic growth in the County, especially at the three major



airports: Ontario International Airport, San Bernardino International Airport, and Southern California Logistics Airport. The County should be cognizant of trends in air travel and impacts on local and regional roadways.

- The main driver of growth at the Southern California Logistics Airport is warehousing in the North Desert Region, which SCAG projects to grow substantially in the area around the airport. This would translate to increased air cargo through the airport. The North Desert Region holds 23% (or 43 million square feet) of the SCAG region's warehousing capacity, predominantly around the Southern California Logistics Airport. Even though much of the increased freight will be moved by rail and the upcoming High Desert Corridor, increase truck traffic to and from this airport could affect Interstate 15, US Route 395, Palmdale Road, and other local roads connected to these regional roads.
- San Bernardino International Airport served cargo carriers. SCAG forecasts between 0.2 and 1.5 million annual passengers using this airport by 2040. Cargo use of this airport could increase as warehousing increases in the Valley Region since it is closer to the Los Angeles and Long Beach Ports than more inland airports. However, since most industrial areas in the Valley Region will quickly build out, most warehousing and cargo growth will take place in the North Desert Region through 2040. Regional access is provided by Interstate 10, Interstate 215, and State Route 210, which would need to absorb increases in passenger and truck traffic to and from this airport.
- Ontario International Airport, owned and operated under a joint powers agreement with the City of Ontario and San Bernardino County, is a major gateway hub for passengers and cargo. Other major passenger airports in the SCAG region (Burbank Bob Hope Airport, LAX, Long Beach Airport, and John Wayne Airport) face growth constraints due to a number of reasons. Therefore, Ontario Airport is expected to absorb a significant amount of future passenger demand. SCAG forecasts 11 to 19 million annual passengers at this airport by 2040. Regional access to the airport is provided by Interstate 10, Interstate 15, and State Route 60, all of which could experience higher traffic volumes with increased air passenger demand. Currently, public transit to the airport consists of OmniTrans routes 81 and 82 and the Ontario Metrolink Station to the west. Future High Speed Rail service is also planned. One of the alternatives studied in the Ontario Airport Rail Access Study was the Metro Gold Line Foothill Extension Phase 2C to the airport, which is currently unfunded.

GOODS MOVEMENT

- SCAG's RTP transportation projects include several new truck climbing lanes on state highways. Also, the High Desert Corridor, a proposed multipurpose corridor between Antelope Valley in Los Angeles County and Victor Valley in San Bernardino County, is expected to spur goods movement and growth in the region. The Corridor could serve



- trucks moving between the Central Valley and Interstate 15, alleviating congestion and increasing goods movement capacity. The Corridor is also expected to create jobs in the region and reduce VMT.
- SCAG has projected substantial increases in warehousing space demand in the coming decades. SCAG has projected a 55% increase in warehousing building space demand in the SCAG region from 2015 to 2040 (or 385 million square feet). Due to its position closer to ports than more inland regions, scattered urban locations in the Valley Region will initially absorb growth in warehousing space. However, SCAG projects that excess capacity in scattered urban locations such as the Valley Region will be sufficiently absorbed by 2020 that new development will take place elsewhere (including the North Desert Region). At the time of SCAG's study, the North Desert Region had 23% of the warehousing development capacity in the SCAG region, or 43 million square feet, predominantly in the area around the Southern California Logistics Airport. With Victorville's approval of the Desert Gateway Specific Plan (which could accommodate 17 million square feet), a total of 60 million square feet of warehousing is projected to move into the North Desert Region.
 - Another important driver of goods movement growth in the North Desert region is the Southern California Rail Complex. This planned facility is a 3,500-acre intermodal rail and container storage complex. Demand for this facility will be driven by the High Desert Corridor, the Southern California Logistics Airport, and the projected substantial increase in local warehousing as growth shifts away from the Valley Region and necessitates a multimodal goods movement network to reduce strain on regional roadways.
 - Increases in goods movement in the County will result in higher truck volumes even when taking future facilities such as the High Desert Corridor and rail into account. Local roads can experience impacts whether they are around regional facilities such as the High Desert Corridor or around locations with future warehousing intensification in scattered Valley Region areas or around the Southern California Logistics Airport in the North Desert Region. Local roads should be planned, designed, and built to handle future truck traffic.
 - The County should coordinate the truck routes network with SANBAG and local jurisdictions. Currently, there are inconsistencies in the network such as roads that lose or gain a truck route designation through multiple jurisdictions. Coordination should take place to maintain consistency in designations and design.

NON-MOTORIZED FACILITIES

- As documented in the Existing Conditions Report, bicycle facilities are extremely limited in the County's unincorporated communities. However, according to the SANBAG Non-Motorized Transportation Plan, a significant number of bicycle facilities are planned in unincorporated County areas. The County should work to ensure that facilities are built and



- that surrounding development supports their active use. In addition, the County should continue to examine additional locations for expanded bicycle facilities.
- In the North Desert Region's unincorporated communities, existing and proposed bikeways are extremely limited. There are currently no bikeways any of the ten community plan areas. Proposed bikeways include a Class III facility along the National Trails Highway continuing into Newberry Springs and Daggett. Proposed facilities also include Class II bicycle lanes in Helendale and Oro Grande and Class I, II and III bikeways in Oak Hills. No bikeways are planned in Baker, El Mirage, or Phelan/Pinon Hills.
 - In the East Desert Region's unincorporated communities, the only existing bikeway is approximately half a mile of Class I bicycle path in Joshua Tree; otherwise, existing bikeways are extremely lacking. Planned bikeways include Class II and III facilities in Homestead Valley and Pioneertown, and Class I, II, and III facilities in Joshua Tree. No additional bikeways are proposed in Morongo Valley.
 - In the Mountain Region's unincorporated communities, existing bikeways exist in Bear Valley but not in the other communities. Significant bikeway improvements are planned in the Mountain Region. These include Class II facilities in Crest Forest, Lake Arrowhead, Oak Glen, and Hilltop and Class II and III facilities in Bear Valley. In addition, there are two proposed facilities in unincorporated areas adjacent to Interstate 15: the Class I Cajon Pass path and Class II bicycle lanes on Cajon Boulevard. However, there are no planned facilities in Wrightwood, Mt. Baldy, Lytle Creek, or Angelus Oaks.
 - In the Valley Region, none of the four unincorporated communities provide bikeways. However, significant bikeway improvements are planned in the Valley Region. These include Class II bikeways in San Antonio Heights, Bloomington, and Muscoy. In Mentone, Class I, II, and III facilities are proposed. These planned facilities will fit into the wider bikeways network in the Valley Region.
 - The County should work with local jurisdictions to ensure that non-motorized facilities are planned consistently across jurisdictional boundaries to maintain a functioning regional network.
 - The County should require non-motorized facilities in new residential and non-residential developments and install facilities on existing and future roadways to ensure that the planned network is built and continues to grow.

COMMUTE PATTERNS

- According to LEHD data, more than half of unincorporated County residents commute outside the County for work, often to locations in Los Angeles, Riverside, and San Diego



Counties. These long commutes can result in higher traffic volumes and congestion. The County should be cognizant of these travel patterns as it analyzes future growth and development.

- The County's commute patterns highlight to the importance of offering more local employment opportunities for residents, which can help reduce stress on local and regional roads.
- The County should encourage the reduction of automobile usage through incentive programs such as alternative transportation modes and facilities, increased non-residential development near housing, and transit-oriented development (TOD).

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