

**APPENDIX D. TRAFFIC IMPACT ASSESSMENT
JANUARY 2013**

COUNTY OF SAN DIEGO GPA FOR FCI LANDS TRAFFIC IMPACT ASSESSMENT

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County of San Diego

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1.0 PURPOSE AND NEED

The County of San Diego is preparing a General Plan Amendment (GPA) for the former Forest Conservation Initiative (FCI) parcels, along with approximately 400 acres of private lands adjacent to former FCI lands. The GPA is intended to ensure that the private lands within this project are consistent with the current General Plan through the General Plan Update (GPU) land use designations and the Guiding Principles and policies which were adopted by the County Board of Supervisors (BOS) in November 2011. This traffic impact analysis report evaluates the impacts associated with buildout of the GPA Community Planning Group (CPG) Recommended Land Use Maps (“Project”) for areas in each of the affected nine community and sub-regional planning areas (These maps are available at the following link: <http://www.sdcounty.ca.gov/pds/advance/FCI.html>).

In the County’s GPU Program Environmental Impact Report (EIR), also certified by the County BOS in November 2011, several Mobility Element roadways were identified to operate at deficient levels of service (LOS) at buildout of the General Plan. In some cases, reclassifications of the roadways were identified to achieve adequate LOS on those Mobility Element roads. In other cases, no improvements were recommended and the Mobility Element roads were accepted at a deficient LOS based on specific rationale (refer to Appendix I of the GPU EIR, available at: http://www.sdcounty.ca.gov/pds/gpupdate/docs/BOS_Aug2011/EIR/Appn_I_Rationale.pdf).

While this report focuses primarily on the Mobility Element roads that are forecast to operate at LOS E or F at buildout, other roadways that are forecast to operate at LOS D at buildout were also evaluated, as identified by County staff.

This report identifies the overall traffic impacts and recommended changes to the County Mobility Element relative to the overall change in land use designations for the Project as a whole. This report does not evaluate the detailed impacts of individual Project parcels that may develop within the affected communities. The individual impacts from future development of these parcels will be addressed on a case-by-case basis and reviewed by the County when development applications are filed.

The residential yields assumed in the GPU Program EIR for the former FCI lands under the buildout scenario are identified in the Supplemental Environmental Impact Report (SEIR) Project Description. Following the expiration of the FCI, the land use designations reverted back to those that were in effect per the previous General Plan, prior to the adoption of the FCI. As a result, the buildout scenario of the of the former FCI parcels per the previous General Plan is more intensive than the buildout scenario for adjacent parcels in the unincorporated County lands, as evaluated in the GPU Program EIR (see SEIR Project Description, Section 1.2). Also, the proposed Project and the re-assignment of appropriate land use designations over these lands would be less intensive than the previous General Plan land use designations for these lands which reflect the pre-FCI General Plan which is no longer in effect.

This report does not include analysis of the non-Mobility Element internal circulation system in the vicinity of the former FCI lands. In accordance with County development review processes, when development applications are submitted for individual parcels within the Project areas, detailed maps and analyses will need to be provided on a case-by-case basis. Access and frontage improvements and off-site mitigation measures will be also addressed on a case-by-case basis as part of the future development review process.

2.0 AFFECTED COMMUNITIES

The nine community and sub-regional planning areas affected by the Project land use changes include: Alpine, Central Mountain, Desert, Jamul/Dulzura, Julian, Mountain Empire, North Mountain, Pendleton/De Luz, and Ramona. Exhibits 1 through 9 illustrate the Project areas in each of the nine communities analyzed in this report. The Central Mountain sub-region has the largest land mass affected by the proposed GPA with over 27,000 acres. The Desert sub-region has the smallest land mass affected with 188 acres.

3.0 TRIP GENERATION RATES OF PROPOSED LAND USES

For each of the affected communities, a trip generation comparative analysis was conducted to determine the net increase in trips that is forecast to occur with the Project). The trip generation analysis compares the trips generated within the Project areas based on land uses assumed in the GPU Program EIR and the proposed land use designations in the CPG Recommended Land Use Maps.

Table 1 summarizes the land use types and associated trip generation rates included in the GPU Program EIR and the proposed GPA.

Table 1
Summary of Land Uses and Trip Generation Rates
GPU EIR and Proposed GPA

Designation	Land Use Definition	Unit	Daily Trip Rate
OS (C)	Open Space (Conservation)	acre	0
OS (R)	Open Space (Recreation)	acre	50.2
P/SP	Public/ Semi-Public Facilities	acre	268
PAL	Public Agency Lands	acre	2
RC	Rural Commercial	acre	250 ¹
RL-20	Rural Lands- 20 (1 DU per 20 acres)	DU	12
RL-40	Rural Lands- 40 (1 DU per 40 acres)	DU	12
RL-80	Rural Land- 80 (1 DU per 80 acres)	DU	12
SPA	Specific Plan Area	NI	NI
SR-1	Single-Family Residence - 1 DU per 1 acre	DU	12
SR-2	Single-Family Residence - 1 DU per 2 acres	DU	12
SR-4	Single-Family Residence - 1 DU per 4 acres	DU	12
SR-10	Single-Family Residence - 1 DU per 10 acres	DU	12
Tribal	Tribal Lands	acre	0 ²
VCMU	Village Core Mixed Use	acre	407 ³
VR-2	Village Residential-2 - 2 DUs per 1 acre	DU	12
VR-4.3	Village Residential-4.3 - 4.3 DUs per 1 acre	DU	12

NI = Not Included

Notes:

¹ Trip rate of 250 trips per acre is applied to all Rural Commercial uses within County Water Authority (CWA) Boundary. Acreage outside the CWA Boundary is reduced by 50% to account for physical, environmental and infrastructure constraints not accounted for in the forecast model.

² Applied to tribal lands without casinos and supporting facilities only. The SANDAG existing land use layer is applied to Tribal lands with casinos and supporting facilities.

³ The trip rate of 407 trips per acre for Village Core Mixed Use is based on the average of the General Commercial trip rate (694 trips per acre) and a Multi-Family Residential trip rate of 120 trips per acre, which was calculated based on an assumed density of 20 DU per acre and 6 trips per DU.

The traffic analysis in the GPU Program EIR assumed primarily low density residential land uses (i.e., 1 dwelling unit per 40 acres) within the former FCI lands, while this GPA generally proposes an increase in density for these lands, including both residential uses and commercial/retail uses.

Based on the trip generation rates provided in Table 1, a net change in trips was forecast for each affected parcel in each community included in this report. Table 2 summarizes the changes in average daily trip (ADT) generation that are forecast for each community. Maps of each community illustrating the trip generation of the GPU assumed land use designations and the proposed GPA land uses are provided for each community in Appendix A of this report.

Table 2
Forecast Trip Generation by Community

Community	Total Acres Affected	General Plan Update ADT	General Plan Amendment ADT	Net Increase in ADT
Alpine	13,725	18,937	134,252	115,317
Central Mountain	27,086	13,222	14,910	1,688
Desert	188	26	26	0
Jamul	1,330	804	840	36
Julian	8,465	4,056	4,612	556
Mountain Empire	2,036	216	303	88
North Mountain	17,298	11,044	14,776	3,732
Pendleton/De Luz	1,020	336	336	0
Ramona	832	2,296	2,610	314

In most of the communities, the net change in trips by individual parcel is negligible (less than 10 trips per day). However, when the parcels are aggregated together, collectively the increase in trips becomes more substantial. Exhibits 10 through 18 illustrate the net increase in trips by parcel for each community, along with the roadways that are forecast to operate at a deficient LOS.

As shown in Exhibit 10, there are parcels in the Alpine community that will result in an increase of more than 500 trips per day. The other communities are not forecast to result in a net increase of trips that would exceed 500 ADT. It is expected that when these future trips distribute onto the Mobility Element network, the overall number of trips will dissipate and will therefore have a minimal effect on the roadway circulation system.

4.0 COUNTY GENERAL PLAN MOBILITY ELEMENT

With the approval of the GPU in 2011, the County updated the Mobility Element. Roadway classifications within the Mobility Element and associated capacities are summarized in Table 3.

A number of roadways were forecast to operate at deficient LOS (LOS E or LOS F) in five of the nine communities within the Project areas. Exhibits 19 - 23 illustrate the forecast deficient roadway segments for those communities (Alpine, Desert, Jamul, Mountain Empire and Ramona) affected by the Project land use changes. There were no forecast deficient roadway segments identified in the remaining four affected communities (Central Mountain, Julian, North Mountain, Pendleton/De Luz). The deficient segments and mitigation measures identified in the GPU are summarized in Table 4.

As shown in Table 4, not all roads within the County were mitigated by capacity increases via higher road classifications with the GPU. Several roads throughout the County were determined to have forecast deficiencies and were accepted to operate at LOS E or F in accordance with criteria established by Mobility Element Policy M-2.1.

Of the five communities where deficient roadway segments are forecast, the community of Alpine will likely be most affected by the Project. In the Desert, Jamul, Mountain Empire, and Ramona communities, the net increase in trips relative to the GPA land use changes is less than 500 ADT. Since these trips are distributed throughout the County and the impact will likely dissipate before reaching the deficient roadway segments, the Project will not have significant impact on the forecast deficient segments.

**Table 3
County of San Diego Mobility Element
Roadway Classifications and Capacities**

No.	Travel Lanes	Design Speed	Road Classification	Level of Service (in ADT)				
				A	B	C	D	E
6.1	6	65 mph	Expressway	36,000	54,000	70,000	86,000	108,000
6.2	6	65 mph	Prime Arterial	22,200	37,000	44,600	50,000	57,000
4.1A	4	55 mph	Major Road with Raised Median	14,800	24,700	29,600	33,400	37,000
4.1B			Major Road with Intermittent Turn Lanes	13,700	22,800	27,400	30,800	34,200
4.2A	4	40 mph	Boulevard with Raised Median	18,000	21,000	24,000	27,000	30,000
4.2B			Boulevard with Intermittent Turn Lanes	16,800	19,600	22,500	25,000	28,000
2.1A	2	45 mph	Community Collector with Raised Median	10,000	11,700	13,400	15,000	19,000
2.1B			Community Collector with Continuous Turn Lane	3,000	6,000	9,500	13,500	19,000
2.1C			Community Collector with Intermittent Turn Lanes	3,000	6,000	9,500	13,500	19,000
2.1D			Community Collector with Improvement Options	3,000	6,000	9,500	13,500	19,000
2.1E			Community Collector	1,900	4,100	7,100	10,900	16,200
2.2A	2	40 mph	Light Collector with Raised Median	3,000	6,000	9,500	13,500	19,000
2.2B			Light Collector with Continuous Turn Lane	3,000	6,000	9,500	13,500	19,000
2.2C			Light Collector with Intermittent Turn Lanes	3,000	6,000	9,500	13,500	19,000
2.2D			Light Collector with Improvement Options	3,000	6,000	9,500	13,500	19,000
2.2E			Light Collector	1,900	4,100	7,100	10,900	16,200
2.2F			Light Collector with Reduced Shoulder	5,800	6,800	7,800	8,700	9,700
2.3A	2	35 mph	Minor Collector with Raised Median	3,000	6,000	7,000	8,000	9,000
2.3B			Minor Collector with Intermittent Turn Lanes	3,000	6,000	7,000	8,000	9,000
2.3C			Minor Collector	1,900	4,100	6,000	7,000	8,000

Source: County of San Diego Public Road Standards (March 2012).

**Table 4
Mobility Element Roadways Forecast to Operate at LOS E or LOS F in the
General Plan Update EIR (2011)**

Roadway	Segment Limits	Current GPU ME Classification	LOS D Threshold	ADT	LOS	GPU EIR Reclassification to Achieve LOS D
Alpine						
Alpine Boulevard	Boulders Rd to Alpine Special Treatment Center	2.2A	13,500	20,300	F	4.2B
	Alpine Special Treatment Center to W. Victoria Dr.	2.2A	13,500	15,200	E	4.2B
	W. Victoria Dr to Louise Dr.	2.2A	13,500	20,400	F	4.2B
Willows Road (West)	Alpine Blvd to Otto Ave	2.2E	10,900	20,400	F	4.2B
	Otto Ave to Viejas Grade Rd	2.2E	10,900	27,200	F	4.1B
Jamul						
Lyons Valley Road	Campo Rd to Skyline Truck Trail	2.2B	13,500	18,200	E	4.2B
Ramona						
Main Street/ SR-78	9 th St to 11 th St	4-Ln State Highway	NA ⁽¹⁾	29,300	E ⁽¹⁾	6-Ln State Highway
7 th Street	Elm St to A St	2.2E	10,900	12,900	E	2.1D
	Main St to D St	2.2E	10,900	14,500	F	2.1D
Wildcat Canyon Rd	Harry Hertzberg Rd to Lakeside/ Ramona CPA	2.1D	13,500	35,100	F	6.2

⁽¹⁾ Note: State Route LOS is based on peak demand rather than ADTs

Source: County of San Diego GPU Program EIR Volume IV (Appendix E, 2011).

5.0 PROJECT IMPACTS AND MITIGATION NEEDS

As previously discussed in this report, nine community and subregional planning areas are affected by the Project land use changes: Alpine, Central Mountain, Desert, Jamul, Julian, Mountain Empire, North Mountain, Pendleton/De Luz, and Ramona. Based on analyses of trip generation and forecast deficiencies in the GPU, it was determined that Alpine would be the only community with a potential for significant traffic-related impacts. To determine the impacts, the parcels forecast to have substantial increases in trips were grouped together into Focus Areas. The trips forecast for each Focus Area were loaded onto the roadway network and operating conditions were evaluated for Project conditions.

The five Focus Areas in the Alpine community are outlined in yellow in Exhibits 24-26. The yellow-outlined areas identify Focus Areas where more than 500 ADT are generated (collectively or individually by parcel). Table 5 summarizes the trips by Focus Area for the Alpine community. Please note that the sum of the net increase in ADT for the five focus areas does not match the sum shown in Table 2 for the Alpine community because not all of the FCI parcels in the Alpine community are located within the five Focus Areas; therefore, the total net increase in ADT for the Alpine community (Table 2) is higher than the sum of the five focus areas shown below in Table 5.

Table 5
Trip Generation for Focus Areas in Alpine Community

Focus Area	Total Acres Affected	General Plan Update ADT	General Plan Amendment ADT	Net Increase in ADT
Focus Area A-1	523	1,406	10,971	9,565
Focus Area A-2	252	554	86,969	86,415
Focus Area A-3	921	3,213	16,767	13,556
Focus Area A-4	791	1,776	4,305	2,529
Focus Area A-5	1,324	4,284	5,940	1,656

Focus Areas A-1 and A-5 are primarily residential uses. Focus Areas A-3 and A-4 consist of a mix of residential and commercial uses. Focus Area A-2, which generates the highest number of trips within the Alpine parcels, is primarily commercial. Approximately 50% of the trips in Focus Area A-2 are generated by the Village Core Mixed-Use designation.

Table 6 summarizes the project-specific traffic significance standards for roadway segments as defined in the County's *Guidelines for Determining Significance – Transportation and Traffic* (August 2011). The significance criteria shown in Table 6 are used to determine the Project's traffic impacts on the study roadway segments.

Table 6
County of San Diego Project Traffic Significance Criteria

Level of Service	2-Lane Road	4-Lane Road	6-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Source: County of San Diego *Guidelines for Determining Significance – Transportation and Traffic* (Aug. 2011).

The County of San Diego identifies traffic impacts as either direct or cumulative impacts. A *direct impact* is caused individually by the increase in traffic generated by a proposed project that results in one of the following:

1. The addition of project-generated traffic results in a change from an acceptable (LOS D or better) to a deficient (LOS E or worse) LOS; OR
2. At a location operating at a deficient LOS (LOS E or worse) without the project, the addition of project traffic results in an increase in ADT on a roadway segment that exceeds the project significance thresholds shown in Table 6.

A project that results in a direct impact is fully responsible for mitigating the impact to restore the deficient roadway segment to an acceptable LOS.

A *cumulative impact* is caused by the increase in traffic generated collectively over time by a group of development projects that results in a deficient LOS. On roadway segments operating at a deficient LOS without the project, any incremental increase in traffic is considered to be a cumulative impact. Cumulative impacts are typically mitigated through contributions to the County Traffic Impact Fee (TIF) program. Even if no cumulative impacts are identified within the project study area, contribution to the TIF program is typically required to mitigate any potential regional cumulative impacts outside of the immediate study area.

Table 7 summarizes the impacts of the Project’s proposed land use changes on Mobility Element roadways that are forecast to operate at LOS D, E, or F according to the GPU Program EIR. The buildout ADT volumes on roadways that are forecast to operate at a deficient LOS (LOS E or F) without the addition of Project traffic are taken directly from the GPU Program EIR Volume IV (Appendix E, July 5, 2011). Buildout volumes on roadways forecast to operate at LOS D are derived from the traffic forecast model developed for the GPU Program EIR. The GPU Program EIR Volume IV document and model plots showing the forecast buildout ADT volumes are provided in Appendix B of this report.

As shown in Table 7, the impacts of the proposed land use changes for the Project areas on the study roadway segments are limited to the community of Alpine, for the reasons stated previously. Table 7 shows that 12 of the 16 study roadway segments in the Alpine community would be significantly impacted by the proposed land use changes.

**Table 7
Forecast Project Impacts
General Plan Amendment (FCI Lands)**

Roadway	Segment Limits	Current GPU ME Classification	LOS D Threshold	GPU EIR		FCI Added ADT	GPA (Project)		Significant Impact ?
				ADT	LOS		ADT	LOS	
Alpine									
Alpine Boulevard	Tavern Rd to Boulders Rd	2.2A	13,500	13,500 ⁽²⁾	D	2,849	16,349	E	Yes
	Boulders Rd to Alpine Special Treatment Center	2.2A	13,500	20,300 ⁽¹⁾	F	3,251	23,551	F	Yes
	Alpine Special Treatment Center to W. Victoria Dr.	2.2A	13,500	15,200 ⁽¹⁾	E	3,654	18,854	E	Yes
	W. Victoria Dr to Louise Dr.	2.2A	13,500	20,000 ⁽¹⁾	F	7,339	27,339	F	Yes
	Louise Dr. to Viejas View Pl	2.1D	13,500	12,200	D	10,097	22,297	F	Yes
	Viejas View Pl to West Willows Rd	2.1D	13,500	14,300	E	11,639	25,939	F	Yes
	West Willows Rd to East Willows Rd	2.1C	13,500	1,300	A	19,781	21,081	F	Yes
Harbison Canyon Rd	Arnold Way to Bridle Run	2.2A	13,500	9,900	D	0	9,900	D	No
South Grade Road	Eltinge Dr to Olive View Rd	2.2C	13,500	13,500 ⁽²⁾	D	2,296	15,796	E	Yes
Tavern Road	Victoria Park Terrace to Alpine Boulevard	4.1A	33,400	30,100	D	588	30,688	D	No
	Arnold Way to Huey Ln/White Oak Dr	2.2D	13,500	9,900	D	1,839	11,739	D	No
Victoria Park Terrace	New Road 11 to Gentian Way	2.2A	13,500	9,900	D	0	9,900	D	No
Viejas Casino Rd.	West Willows Rd. to East Willows Rd	4.2B	25,000	21,900	D	7,751	29,651	E	Yes
Willows Road (West)	Alpine Blvd to Otto Ave	2.2E	10,900	20,400 ⁽¹⁾	F	15,845	36,245	F	Yes
	Otto Ave to Viejas Grade Rd	2.2E	10,900	27,200 ⁽¹⁾	F	20,536	47,736	F	Yes
Willows Road (East)	Viejas Casino Rd. to I-8 on ramp	2.2E	10,900	9,300	D	37,356	46,656	F	Yes
Desert									
Borrego Springs Road	Cloudy Moon Dr to Diamond Bar Dr	2.2D	13,500	13,200	D	0	13,200	D	No
	Diamond Bar Rd to Tilting T Dr	2.2D	13,500	13,500 ⁽²⁾	D	0	13,500	D	No
	Tilting T Dr to Country Club Dr	2.2D	13,500	9,900	D	0	9,900	D	No
Palm Canyon Drive	Ocotillo Cir to Borrego Springs Rd	2.2A	13,500	13,500 ⁽²⁾	D	0	13,500	D	No
	Borrego Springs Rd to Stirrup Rd	2.2A	13,500	11,200	D	0	11,200	D	No

⁽¹⁾ Source: County of San Diego GPU Program EIR Volume IV (Appendix E, 2011).

⁽²⁾ The GPU Program EIR Volume IV (Appendix E, 2011) identified these segments at LOS D; however, the volumes on these segments were not specifically reported. It was determined that the volumes are approaching the LOS D threshold. Therefore, for this analysis, the GPU EIR volumes are assumed to be equal to the LOS D capacity. The Project volumes were then added to the LOS D capacity to determine the GPA ADT volumes for the study roadway segments.

⁽³⁾ Note: State Route LOS is based on peak demand rather than ADTs.

**Table 7 (continued)
Forecast Project Impacts
General Plan Amendment (FCI Lands)**

Roadway	Segment Limits	Current GPU ME Classification	LOS D Threshold	GPU EIR		FCI Added ADT	GPA (Project)		Significant Impact ?
				ADT	LOS		ADT	LOS	
Jamul									
Lyons Valley Road	Campo Rd to Skyline Truck Trail	2.2B	13,500	18,200 ⁽¹⁾	E	0	18,200	E	No
North Mountain									
East Grade Rd/S7	Will Valley Rd to SR 76	2.3C	7,000	6,000	D	0	6,000	D	No
Ramona									
Julian Road/ SR-67	Poway city limits to Archie Moore Rd	4-Ln State Highway	NA ⁽³⁾	32,300	D ⁽³⁾	0	32,300	D ⁽³⁾	No
	Rancho de Oro Rd to Mussey Grade Rd	4-Ln State Highway	NA ⁽³⁾	32,200	D ⁽³⁾	0	32,200	D ⁽³⁾	No
	Mussey Grade Rd to Highland Valley Rd	4-Ln State Highway	NA ⁽³⁾	28,600	D ⁽³⁾	0	28,600	D ⁽³⁾	No
Main Street/ SR-78	Ramona St to Montecito Rd	4-Ln State Highway	NA ⁽³⁾	28,900	D ⁽³⁾	0	28,900	D ⁽³⁾	No
	9 th St to 11 th St	4-Ln State Highway	NA ⁽³⁾	29,300 ⁽¹⁾	E ⁽³⁾	0	29,300	E ⁽³⁾	No
Julian Road/ SR-78	3 rd St to East Julian Rd	2-Ln State Highway	NA ⁽³⁾	9,800	D ⁽³⁾	0	9,800	D ⁽³⁾	No
	Amigos Rd to Magnolia Ave	2-Ln State Highway	NA ⁽³⁾	9,800	D ⁽³⁾	0	9,800	D ⁽³⁾	No
3 rd Street	SR78 to Via Aligre Dr	2.2E	10,900	8,200	D	0	8,200	D	No
7 th Street	Elm St to A St	2.2E	10,900	12,900 ⁽¹⁾	E	0	12,900	E	No
	Main St to D St	2.2E	10,900	14,500 ⁽¹⁾	E	0	14,500	E	No
	E St to G St	2.2E	10,900	10,800	D	0	10,800	D	No
10 th Street	SR67 / Main St to H St	2.1B	13,500	12,500	D	0	12,500	D	No
San Vicente Rd	H St to 11 th St	2.1B	13,500	13,500 ⁽¹⁾	D	0	13,500	D	No
	11 St to Warnock Dr	2.1B	13,500	12,500	D	0	12,500	D	No
	Warnock Dr to Vicente Meadow Dr	2.1B	13,500	12,500	D	0	12,500	D	No
Wildcat Canyon Rd	San Vicente Rd to Painted Rock Rd	2.1D	13,500	10,200	D	0	10,200	D	No
	Painted Rock Rd to Harry Hertzberg Rd	2.1D	13,500	13,500 ⁽¹⁾	D	0	13,500	D	No
	Harry Hertzberg Rd to Lakeside/ Ramona CPA	2.1D	13,500	35,100 ⁽¹⁾	F	0	35,100	F	No

⁽¹⁾ Source: County of San Diego GPU Program EIR Volume IV (Appendix E, 2011).

⁽²⁾ The GPU Program EIR Volume IV (Appendix E, 2011) identified these segments at LOS D; however, the volumes on these segments were not specifically reported. It was determined that the volumes are approaching the LOS D threshold. Therefore, for this analysis, the GPU EIR volumes are assumed to be equal to the LOS D capacity. The Project volumes were then added to the LOS D capacity to determine the GPA ADT volumes for the study roadway segments.

⁽³⁾ Note: State Route LOS is based on peak demand rather than ADTs.

Of these 12 segments, the Project ADT would worsen six roadways that are forecast to operate at deficient LOS prior to the Project, and the following six additional segments were identified to change from an acceptable LOS D or better to a deficient LOS E or F with the addition of project traffic:

- Alpine Boulevard from Tavern Road to Boulders Road
- Alpine Boulevard from Louise Drive to Viejas View Place
- Alpine Boulevard from West Willows Road to East Willows Road
- South Grade Road from Eltinge Drive to Olive View Road
- Viejas Casino Road from West Willows Road to East Willows Road
- East Willows Road from Viejas Casino Road to I-8 On-Ramp

The GPU EIR includes the reclassifications that would be needed to achieve LOS D or better operations on the deficient roadway segments, as shown in Table 8 in the column titled “GPU EIR Reclassification to Achieve LOS D”. However, based on specific criteria under Policy M-2.1 of the Mobility Element, the County determined it is more appropriate to maintain deficient LOS E or F operations on some roadway segments instead of adding travel lanes to increase capacity. In the Alpine community, the roadway segments where LOS E or F operations were accepted at buildout are listed below:

- Alpine Boulevard from Boulders Road to Louise Drive
- West Willows Road from Alpine Boulevard to Viejas Grade Road

Table 8 shows the forecast LOS of the significantly impacted roadway segments (refer to Table 7) in the Alpine community after the Project impacts are accounted for. Table 8 also shows the reclassifications identified by the GPU EIR traffic study to achieve LOS D or better for the above-listed deficient roadway segments in Alpine where LOS E or F operations are accepted per the Mobility Element.

As shown in Table 8, the following roadway segments that are forecast to operate at LOS D, E or F under the GPU Program EIR would operate at LOS E or F with the increase in Project trips even after implementation of the reclassifications needed to meet LOS D, as identified in the GPU EIR Volume IV (Appendix E):

- Alpine Boulevard from:
 - Tavern Road to Boulders Road
 - West Victoria Drive to Louise Drive
 - Louise Drive to Viejas View Place
 - Viejas View Place to West Willows Road
 - West Willows Road to East Willows Road
- South Grade Road from Eltinge Drive to Olive View Road
- Viejas Casino Road from West Willows Road to East Willows Road
- West Willows Road from:
 - Alpine Boulevard to Otto Avenue
 - Otto Avenue to Viejas Grade Road
- East Willows Road from Viejas Casino Road to I-8 On-Ramp

**Table 8
Roadway Segment LOS with GPU EIR Reclassification
Alpine Community**

Roadway	Segment Limits	GPU EIR Reclassification to Achieve LOS D	LOS D Threshold	GPU EIR ADT	GPU EIR LOS	FCI Added ADT	GPA ADT	GPA LOS	Impact Mitigated?
Alpine Boulevard	Tavern Rd to Boulders Rd	2.2A	13,500	13,500 ⁽²⁾	D	2,849	16,349	E	No
	Boulders Rd to Alpine Special Treatment Center	4.2B	25,000	20,300 ⁽¹⁾	C	3,251	23,551	D	Yes
	Alpine Special Treatment Center to W. Victoria Dr	4.2B	25,000	15,200 ⁽¹⁾	C	3,654	18,854	C	Yes
	W. Victoria Dr to Louise Dr	4.2B	25,000	20,400 ⁽¹⁾	D	7,339	27,739	E	No
	Louise Dr to Viejas View Pl	2.1D	13,500	12,200	D	10,097	22,297	F	No
	Viejas View Pl to West Willows Rd	2.1D	13,500	14,300	D	11,639	25,939	F	No
	West Willows Rd to East Willows Rd	2.1C	13,500	1,300	A	19,781	21,081	F	No
South Grade Road	Eltinge Dr to Olive View Rd	2.2C	13,500	13,500 ⁽²⁾	D	2,296	15,796	E	No
Tavern Road	Victoria Park Terrace to Alpine Boulevard	4.1A	33,400	30,100	D	588	30,688	D	Yes
	Arnold Way to Huey Ln/White Oak Dr	2.2A	13,500	9,900	D	1,839	11,739	D	Yes
Viejas Casino Rd.	West Willows Rd to East Willows Rd	4.2B	25,000	21,900	D	7,751	29,651	E	No
Willows Road (West)	Alpine Blvd to Otto Ave	4.2B	25,000	20,400 ⁽¹⁾	D	15,845	36,245	F	No
	Otto Ave to Viejas Grade Rd	4.2A	27,000	27,200 ⁽¹⁾	D	20,536	47,736	F	No
Willows Road (East)	Viejas Casino Rd to I-8 on ramp	2.2E	10,900	9,300	D	37,356	46,656	F	No

⁽¹⁾ Source: County of San Diego GPU Program EIR Volume IV (Appendix E, 2011).

⁽²⁾ The GPU Program EIR Volume IV (Appendix E, 2011) identified these segments at LOS D; however, the volumes on these segments were not specifically reported. It was determined that the volumes are approaching the LOS D threshold. Therefore, for this analysis, the GPU EIR volumes are assumed to be equal to the LOS D capacity. The Project volumes were then added to the LOS D capacity to determine the GPA ADT volumes for the study roadway segments.

These ten impacted roadway segments as shown in Table 8 will require additional reclassifications to mitigate Project impacts of the additional traffic associated with the proposed land use changes. The following reclassifications to meet Policy M-2.1 (LOS D) would be needed for the ten impacted roadway segments:

- Alpine Boulevard from Tavern Road to Boulders Road: Reclassify roadway segment from a Light Collector with Raised Median (2.2A) to a Boulevard with Intermittent Turn Lanes (4.2B).
- Alpine Boulevard from West Victoria Drive to Louise Drive: Reclassify roadway segment from a Light Collector with Raised Median (2.2A) to a Major Road with Intermittent Turn Lanes (4.1B).
- Alpine Boulevard from Louise Drive to Viejas View Place: Reclassify roadway segment from a Community Collector with Improvement Options (2.1D) to a Boulevard with Intermittent Turn Lanes (4.2B).
- Alpine Boulevard from Viejas View Place to West Willows Road: Reclassify roadway segment from a Community Collector with Improvement Options (2.1D) to a Boulevard with Raised Median (4.2A).
- Alpine Boulevard from West Willows Road to East Willows Road: Reclassify roadway segment from a Community Collector with Intermittent Turn Lanes (2.1C) to a Boulevard with Intermittent Turn Lanes (4.2B).
- South Grade Road from Eltinge Drive to Olive View Road: Reclassify roadway segment from a Light Collector with Intermittent Turn Lanes (2.2C) to a Boulevard with Intermittent Turn Lanes (4.2B).
- Viejas Casino Road from West Willows Road to East Willows Road: Reclassify roadway segment from a Boulevard with Intermittent Turn Lanes (4.2B) to a Major Road with Intermittent Turn Lanes (4.1B).
- West Willows Road from Alpine Boulevard to Otto Avenue: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).
- West Willows Road from Otto Avenue to Viejas Grade Road: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).
- East Willows Road from Viejas Casino Road to I-8 On-Ramp: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).

Table 9 summarizes daily roadway segment LOS with the Mobility Element road classifications needed to achieve LOS D or better operations and mitigate Project impacts to the above-listed roadway segments.

**Table 9
Roadway Segment LOS with Reclassification to Meet Policy M-2.1 (LOS D)
Alpine Community**

Segment	Location	Reclassification to Achieve LOS D	LOS D Threshold	With GPA LU		Impact Mitigated?
				ADT	LOS	
Alpine Boulevard	Tavern Rd to Boulders Rd	4.2B	25,000	16,349	C	Yes
	W. Victoria Dr to Louise Dr.	4.1B	30,800	27,739	D	Yes
	Louise Dr. to Viejas View Pl	4.2B	25,000	22,297	D	Yes
	Viejas View Pl to West Willows Rd	4.2A	27,000	25,939	D	Yes
	West Willows Rd to East Willows Rd	4.2B	25,000	21,081	D	Yes
South Grade Road	Eltinge Dr to Olive View Rd	4.2B	25,000	15,796	C	Yes
Viejas Casino Rd.	West Willows Rd. to East Willows Rd	4.1B	30,800	29,651	D	Yes
Willows Road (West)	Alpine Blvd to Otto Ave	6.2	50,000	36,245	B	Yes
	Otto Ave to Viejas Grade Rd	6.2	50,000	47,736	D	Yes
Willows Road (East)	Viejas Casino Rd. to I-8 on ramp	6.2	50,000	46,656	D	Yes

6.0 CONCLUSIONS

The County of San Diego is preparing a GPA for privately-owned parcels affected by the former FCI, along with approximately 400 acres of private lands adjacent to former FCI lands. This traffic impact analysis report evaluated the impacts of the changes in proposed land uses in these areas in each of the affected nine communities.

The results of the analysis showed that the impacts associated with the proposed land use changes would be limited to the community of Alpine. The improvements that are recommended in the County's GPU Program EIR (2011) for the impacted deficient roadways in Alpine will mitigate most of the impacts associated with the proposed land use changes in the Project areas. However, the following ten roadway segments would either operate at a deficient LOS at buildout or need to be upgraded to the reclassifications identified in Table 9:

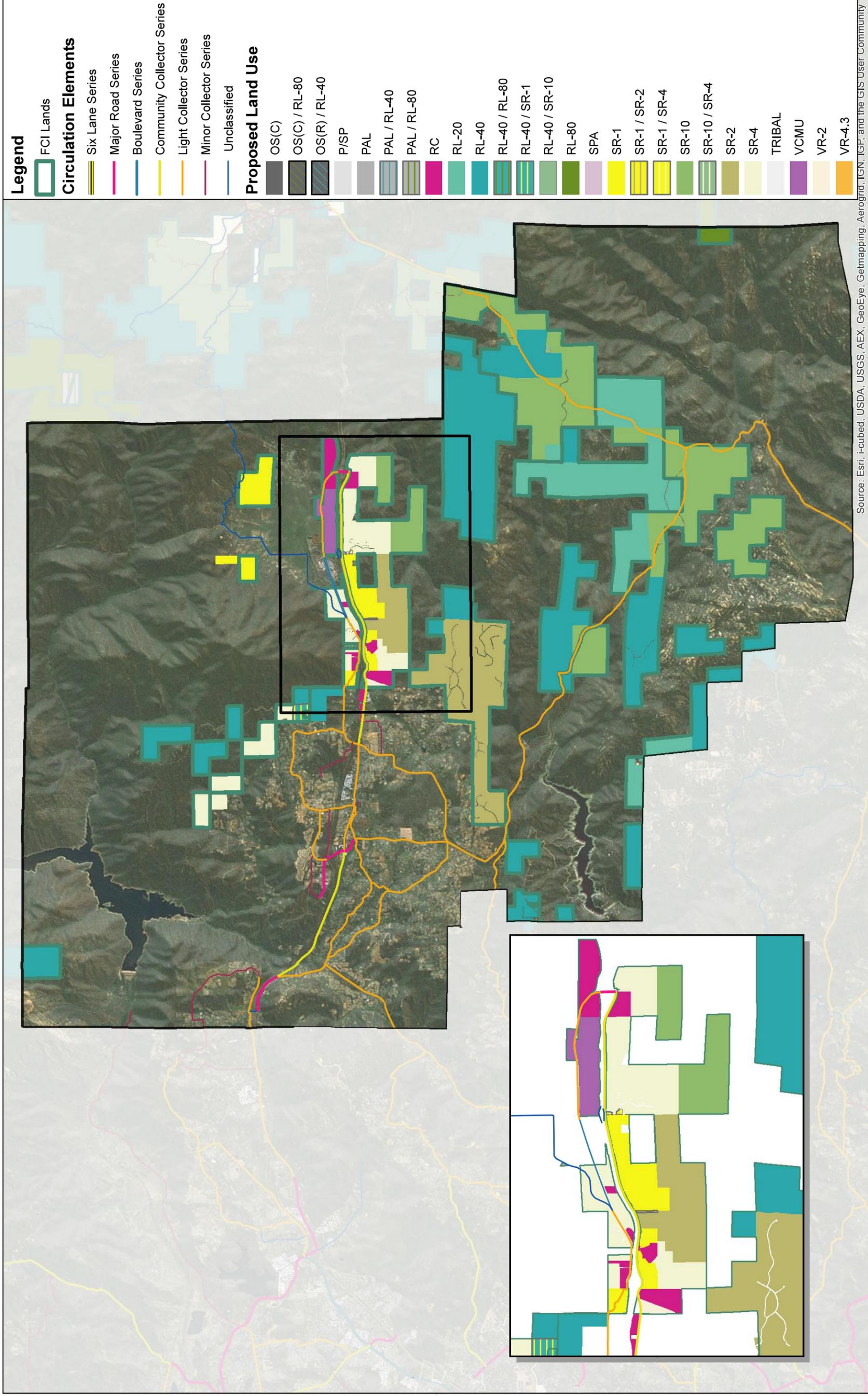
- Alpine Boulevard from:
 - Tavern Road to Boulders Road (LOS E)
 - West Victoria Drive to Louise Drive (LOS E)
 - Louise Drive to Viejas View Place (LOS F)
 - Viejas View Place to West Willows Road (LOS F)
 - West Willows Road to East Willows Road (LOS F)
- South Grade Road from Eltinge Drive to Olive View Road (LOS E)
- Viejas Casino Road from West Willows Road to East Willows Road (LOS E)
- West Willows Road from:
 - Alpine Boulevard to Otto Avenue (LOS F)
 - Otto Avenue to Viejas Grade Road (LOS F)
- East Willows Road from Viejas Casino Road to I-8 On-Ramp (LOS F)

The following reclassifications to meet Policy M-2.1 (LOS D) would be needed for the ten impacted roadway segments:

- Alpine Boulevard from Tavern Road to Boulders Road: Reclassify roadway segment from a Light Collector with Raised Median (2.2A) to a Boulevard with Intermittent Turn Lanes (4.2B).
- Alpine Boulevard from West Victoria Drive to Louise Drive: Reclassify roadway segment from a Light Collector with Raised Median (2.2A) to a Major Road with Intermittent Turn Lanes (4.1B).
- Alpine Boulevard from Louise Drive to Viejas View Place: Reclassify roadway segment from a Community Collector with Improvement Options (2.1D) to a Boulevard with Intermittent Turn Lanes (4.2B).

- Alpine Boulevard from Viejas View Place to West Willows Road: Reclassify roadway segment from a Community Collector with Improvement Options (2.1D) to a Boulevard with Raised Median (4.2A).
- Alpine Boulevard from West Willows Road to East Willows Road: Reclassify roadway segment from a Community Collector with Intermittent Turn Lanes (2.1C) to a Boulevard with Intermittent Turn Lanes (4.2B).
- South Grade Road from Eltinge Drive to Olive View Road: Reclassify roadway segment from a Light Collector with Intermittent Turn Lanes (2.2C) to a Boulevard with Intermittent Turn Lanes (4.2B).
- Viejas Casino Road from West Willows Road to East Willows Road: Reclassify roadway segment from a Boulevard with Intermittent Turn Lanes (4.2B) to a Major Road with Intermittent Turn Lanes (4.1B).
- West Willows Road from Alpine Boulevard to Otto Avenue: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).
- West Willows Road from Otto Avenue to Viejas Grade Road: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).
- East Willows Road from Viejas Casino Road to I-8 On-Ramp: Reclassify roadway segment from a Light Collector (2.2E) to a Prime Arterial (6.2).

The results of the analysis showed that the reclassifications would improve daily operations on the impacted roadway segments to acceptable LOS.

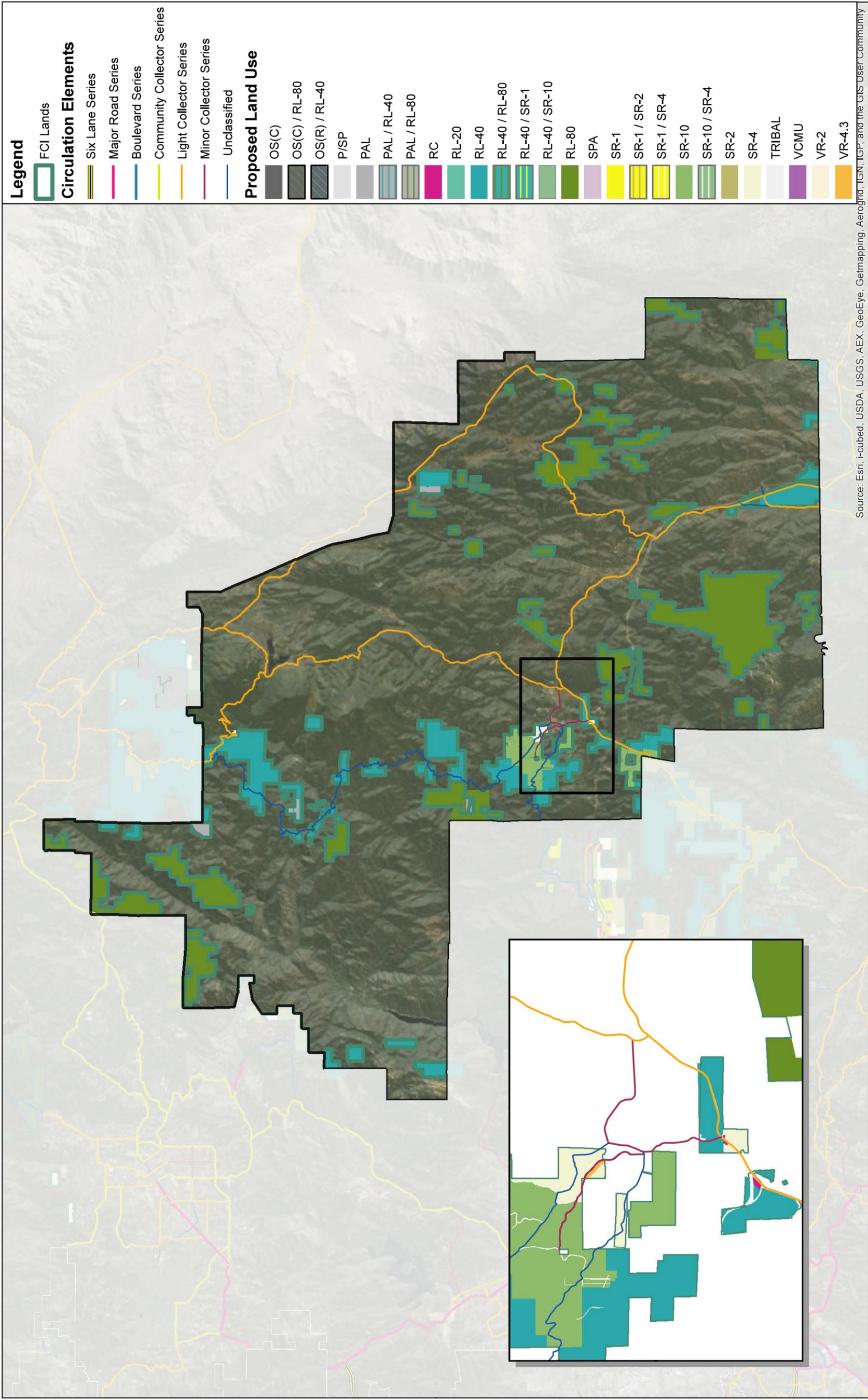


FCI LANDS GENERAL PLAN AMENDMENT: ALPINE

JN 130874 DECEMBER 2012



EXHIBIT 1

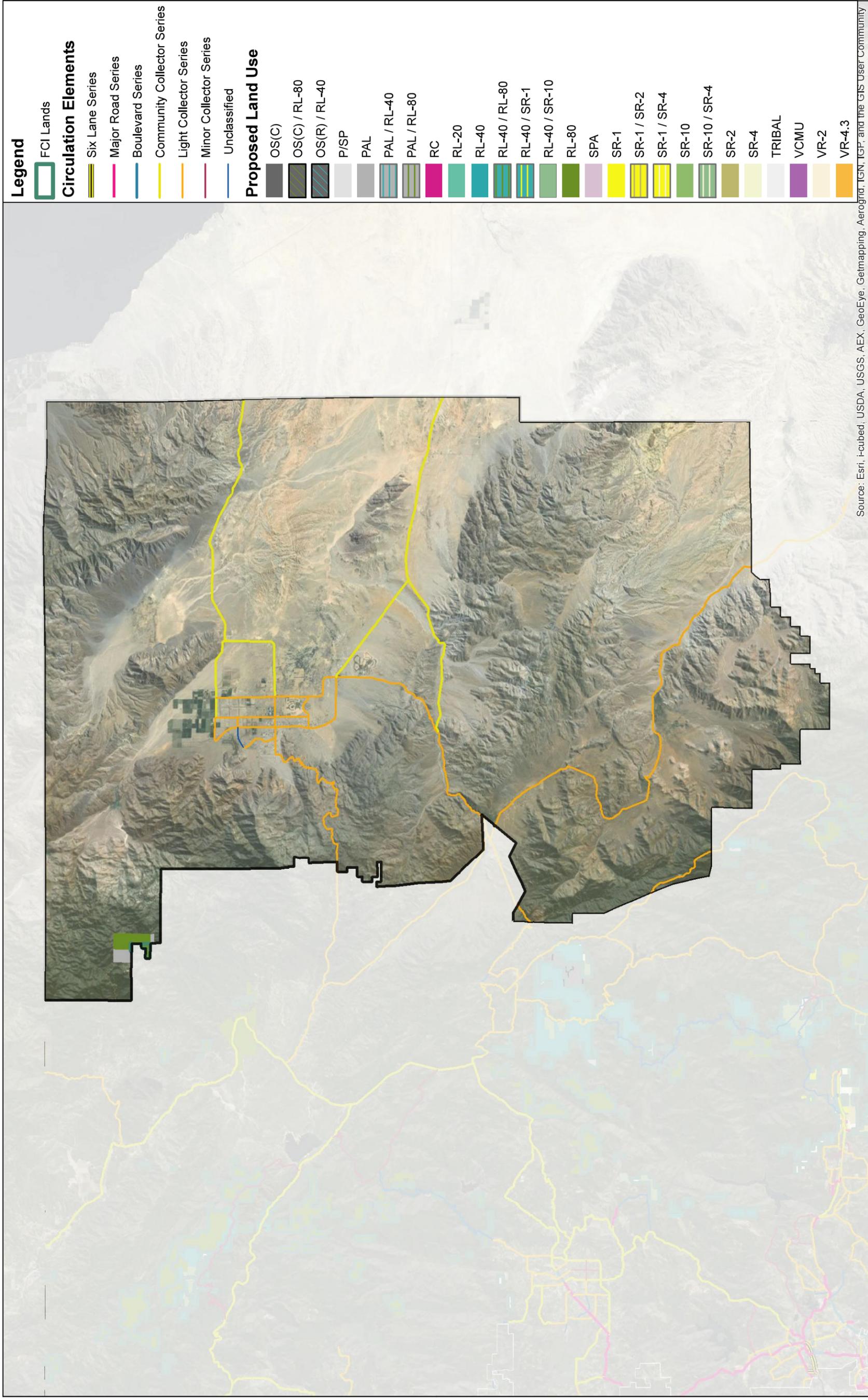


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Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



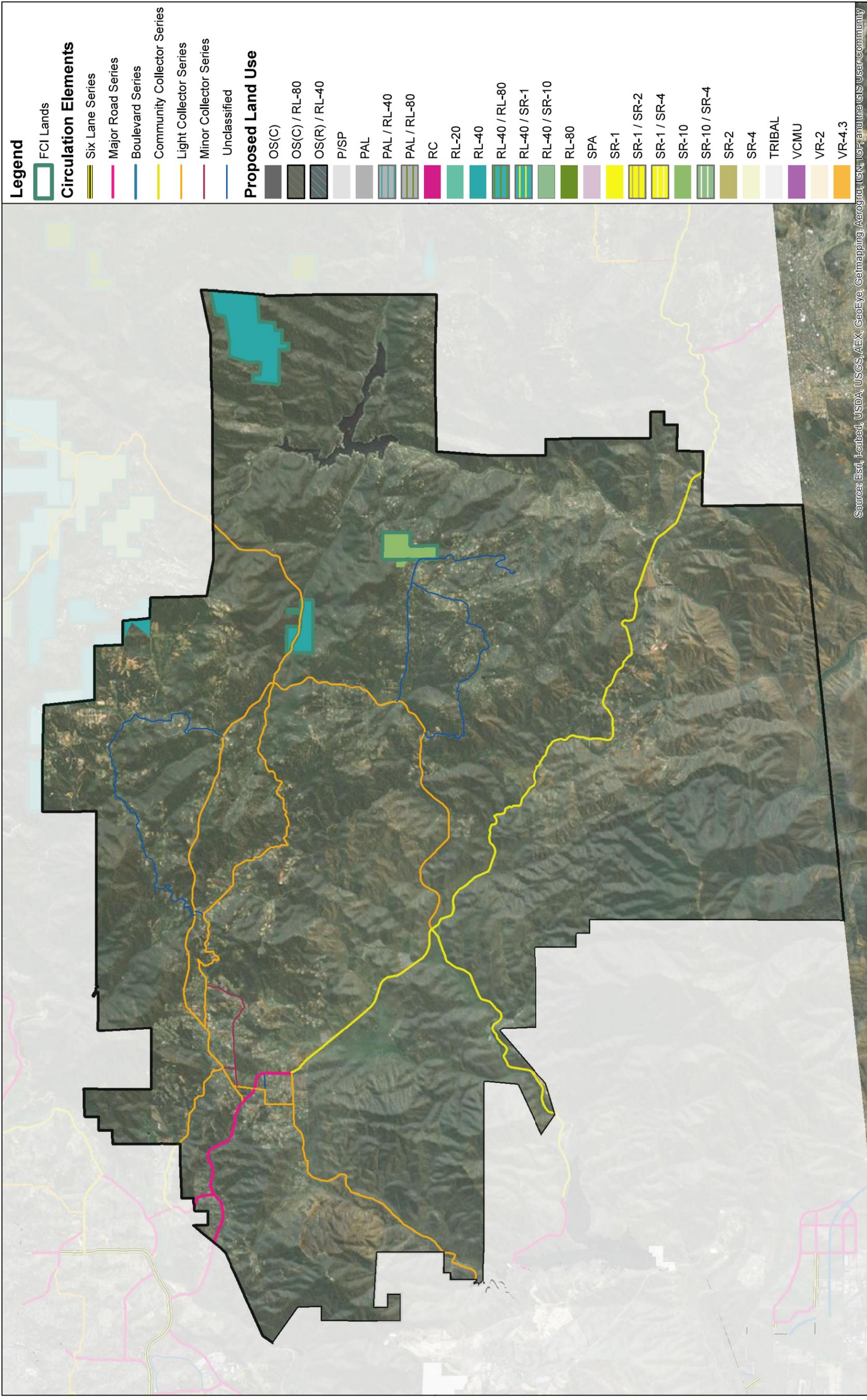
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FCI LANDS GENERAL PLAN AMENDMENT: DESERT

EXHIBIT 3

JN 130874 DECEMBER 2012



Legend

- FCI Lands
- Circulation Elements**
- Six Lane Series
- Major Road Series
- Boulevard Series
- Community Collector Series
- Light Collector Series
- Minor Collector Series
- Unclassified

Proposed Land Use

- OS(C)
- OS(C) / RL-80
- OS(R) / RL-40
- P/SP
- PAL
- PAL / RL-40
- PAL / RL-80
- RC
- RL-20
- RL-40
- RL-40 / RL-80
- RL-40 / SR-1
- RL-40 / SR-10
- RL-80
- SPA
- SR-1
- SR-1 / SR-2
- SR-1 / SR-4
- SR-10
- SR-10 / SR-4
- SR-2
- SR-4
- TRIBAL
- VCMU
- VR-2
- VR-4.3

Source: Esti, Herbed, USDA, USGS, AEX, GeoEye, GeoEye, Getmapping, Aerogrid, IGN, ICF, and the GIS User Community



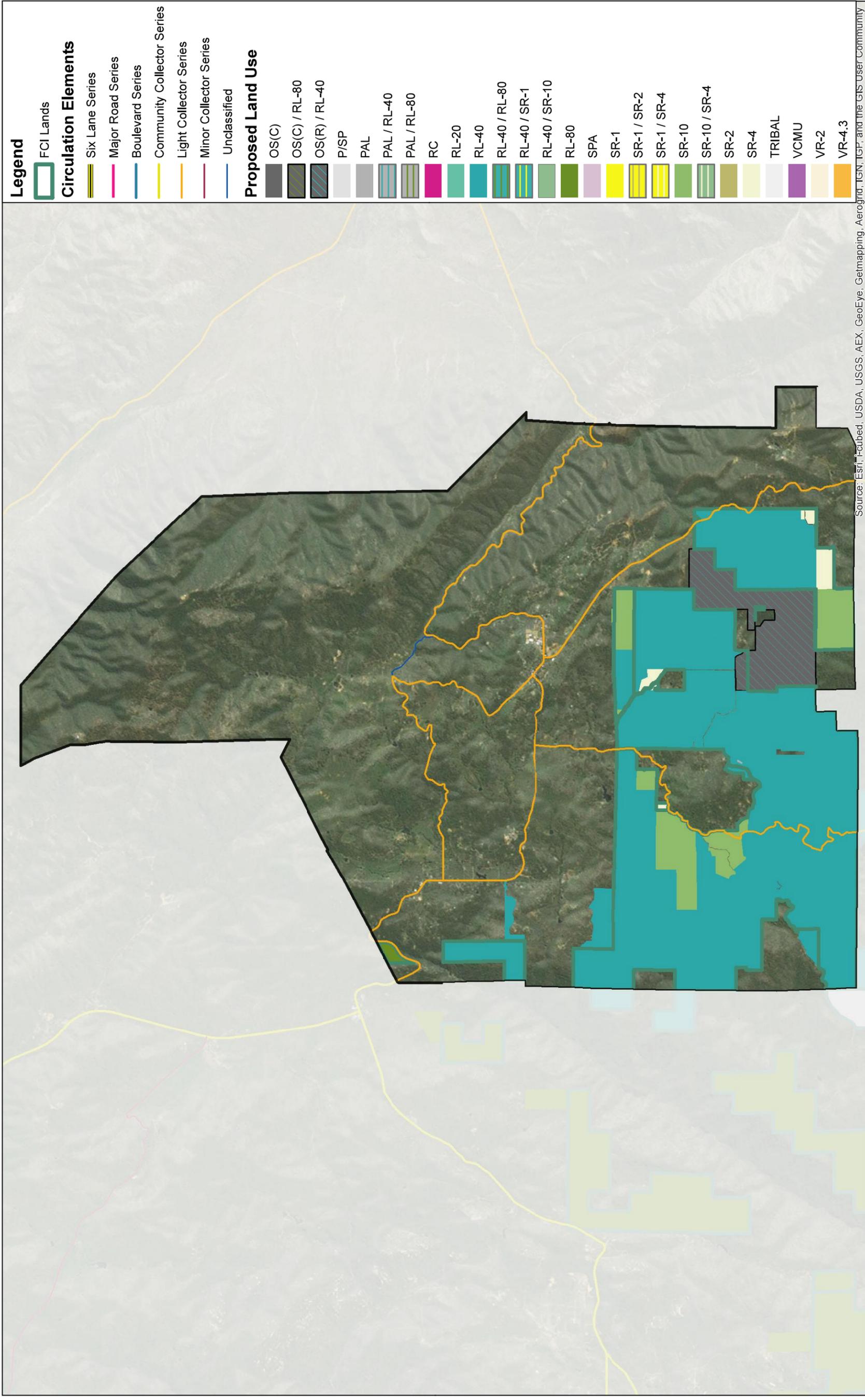
FCI LANDS GENERAL PLAN AMENDMENT: JAMUL

JN 130874 DECEMBER 2012

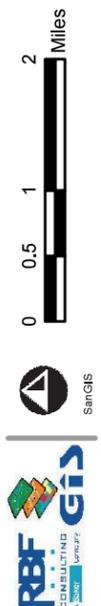


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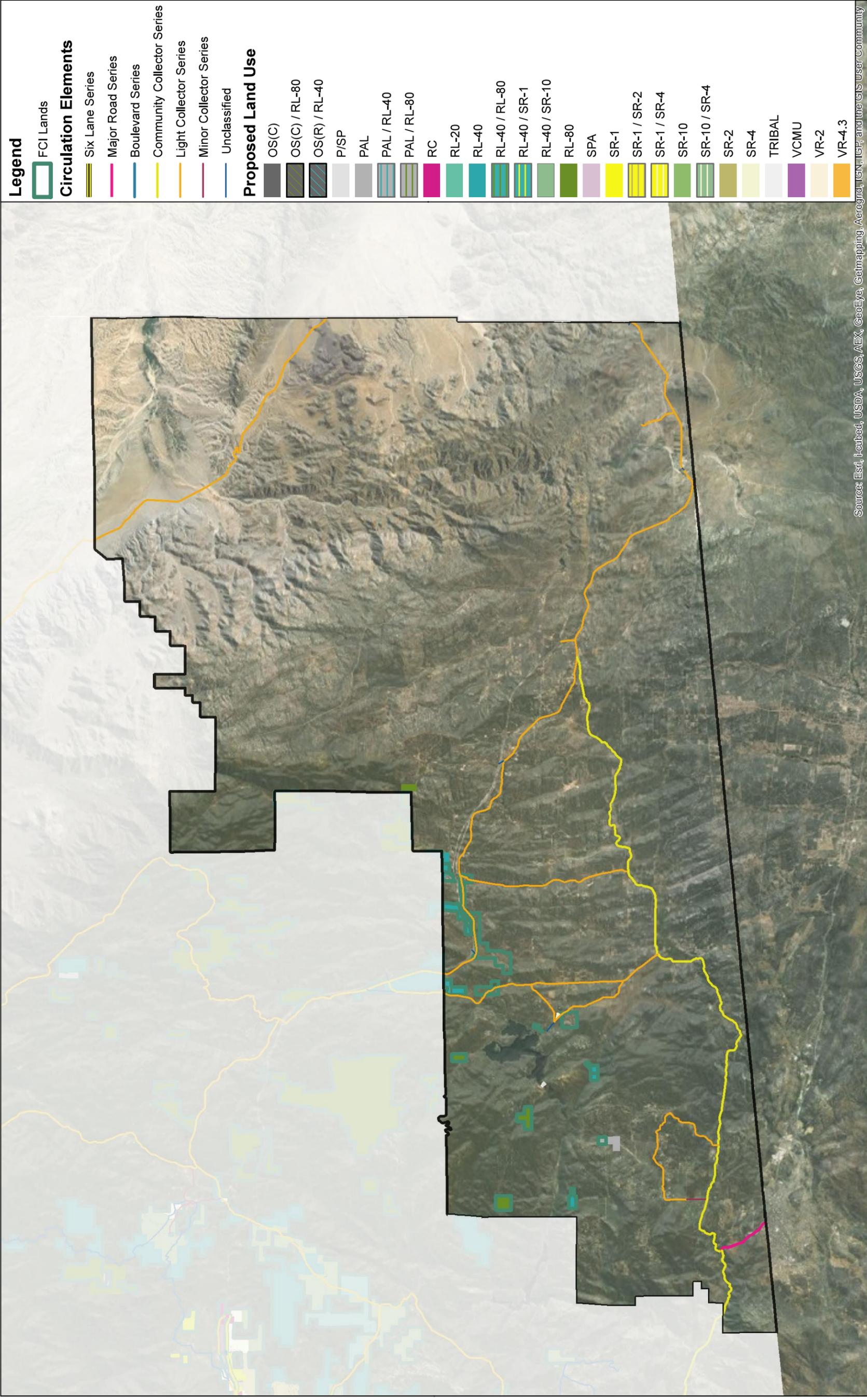
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Source: Esri, Cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerotid, IGN, TGP, and the GIS User Community



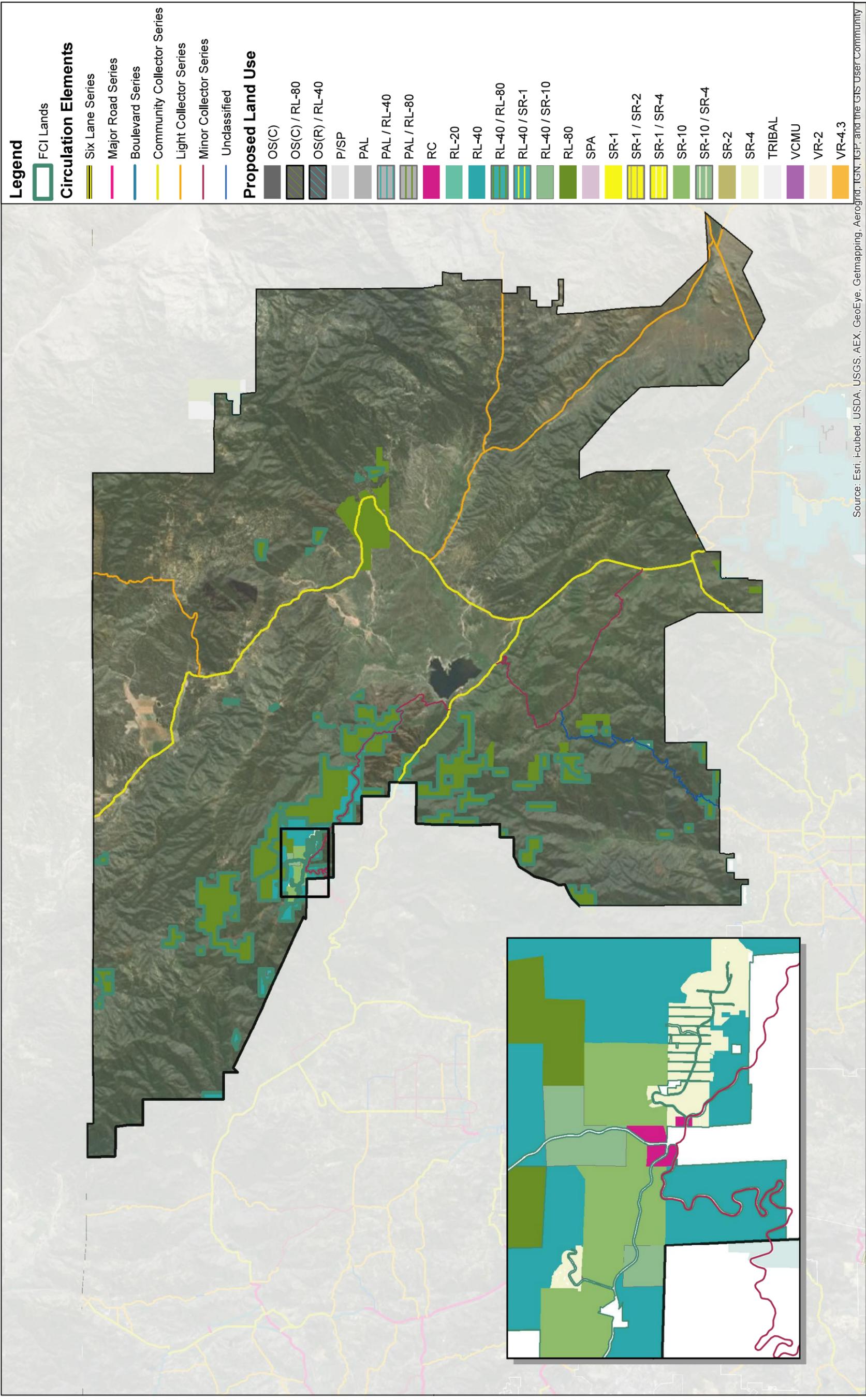
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Source: Esri, Intellicast, USDA, USGS, AEX, GeoEye, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community







Legend

FCI Lands

Circulation Elements

- Six Lane Series
- Major Road Series
- Boulevard Series
- Community Collector Series
- Light Collector Series
- Minor Collector Series
- Unclassified

Proposed Land Use

- OS(C)
- OS(C) / RL-80
- OS(R) / RL-40
- P/SP
- PAL
- PAL / RL-40
- PAL / RL-80
- RC
- RL-20
- RL-40
- RL-40 / RL-80
- RL-40 / SR-1
- RL-40 / SR-10
- RL-80
- SPA
- SR-1
- SR-1 / SR-2
- SR-1 / SR-4
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- SR-2
- SR-4
- TRIBAL
- VCMU
- VR-2
- VR-4.3

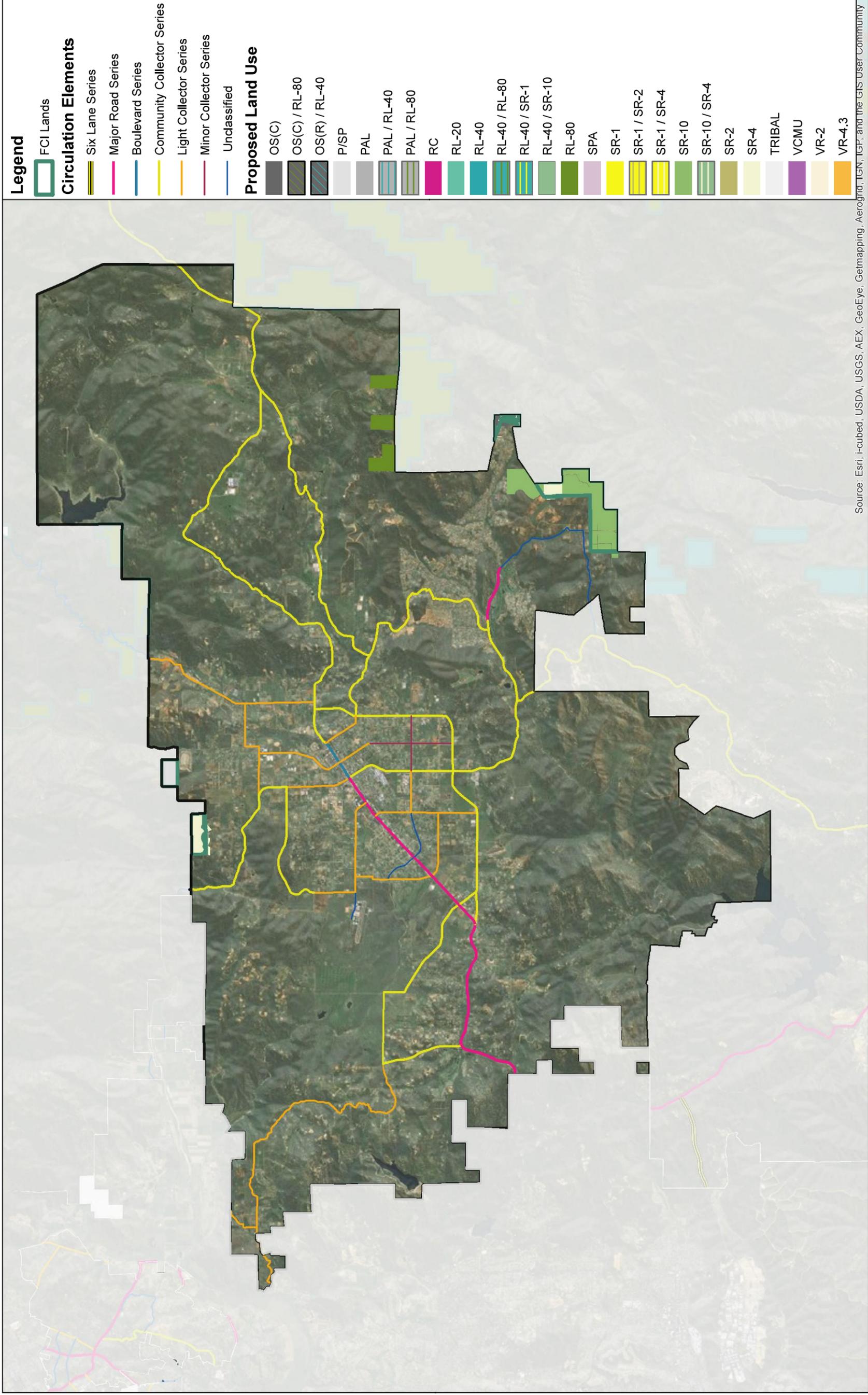
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0.051 2 Miles



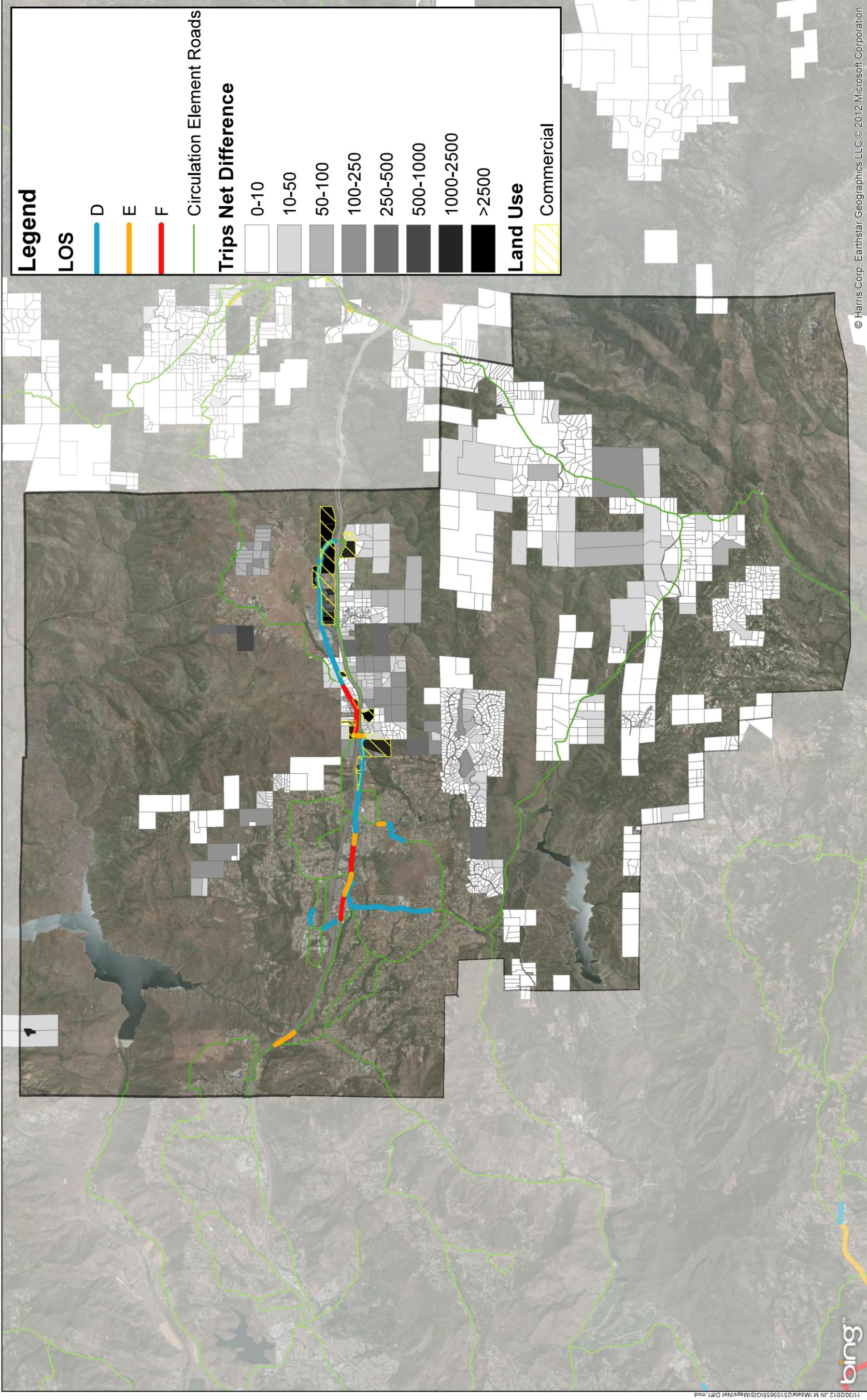
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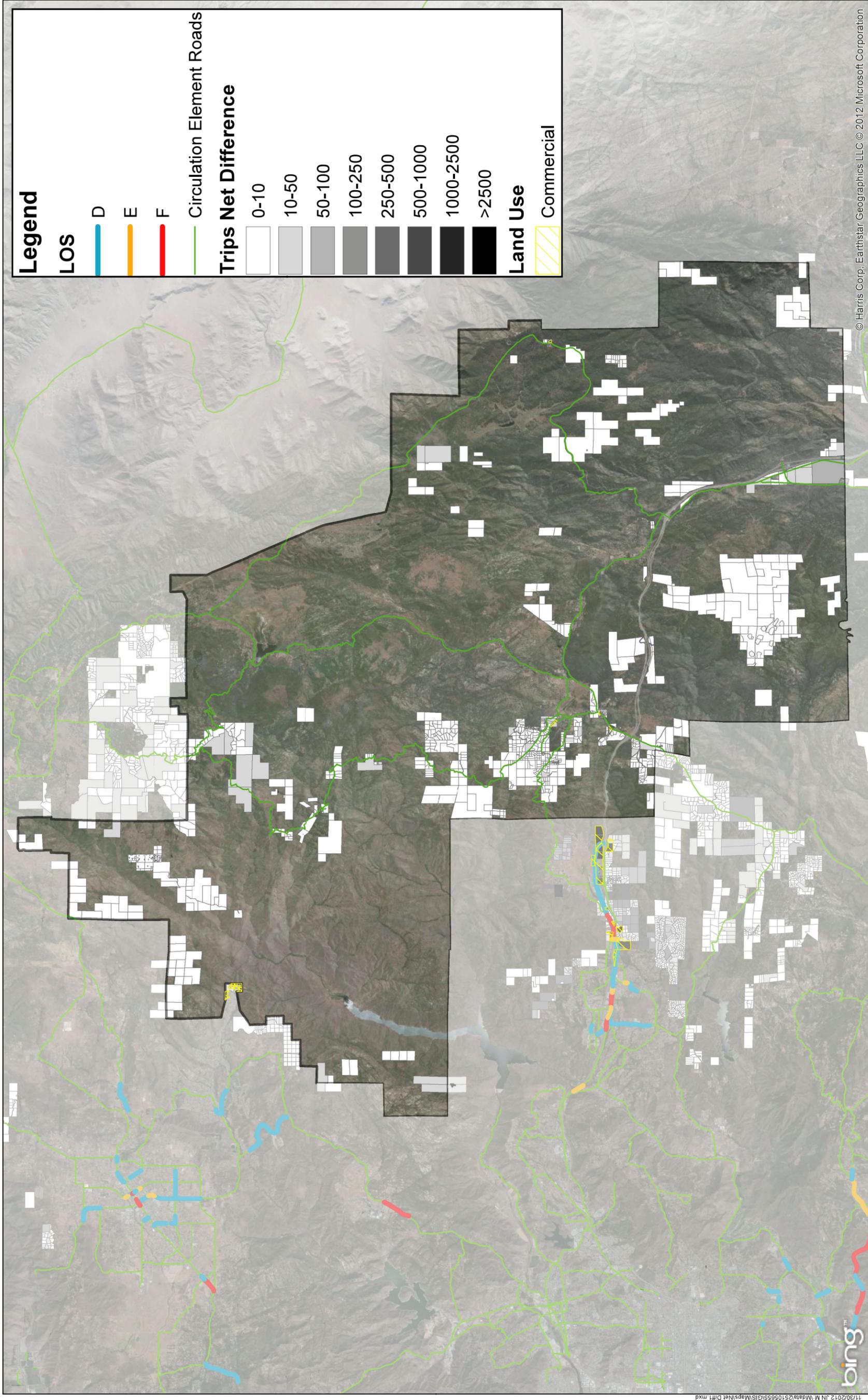
Net Difference in Trips: Alpine

NET INCREASE IN TRIPS WITH PROPOSED LAND USES: ALPINE

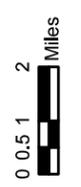
JN 130874 DECEMBER 2012



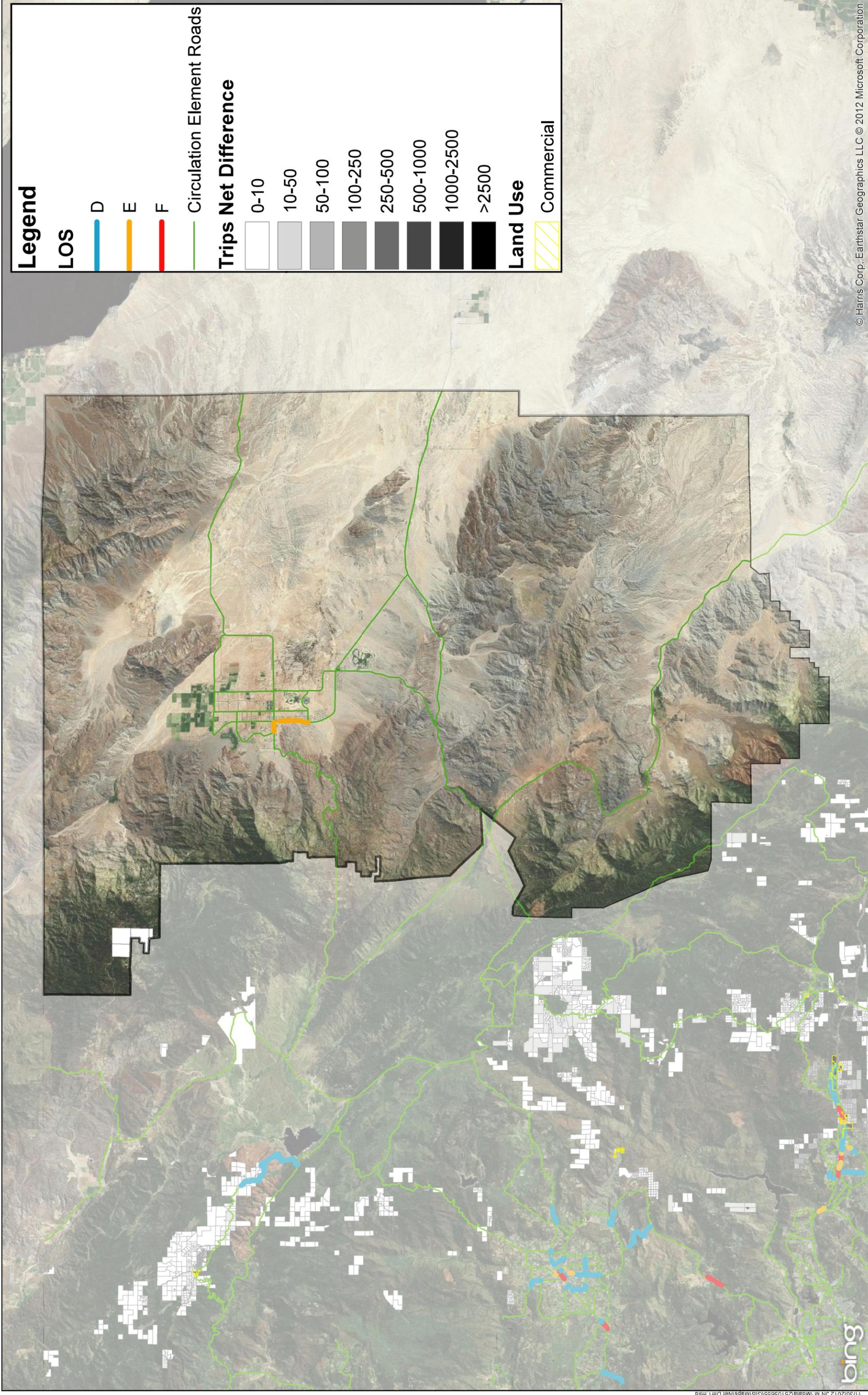
EXHIBIT 10



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Net Difference in Trips: Central Mountain



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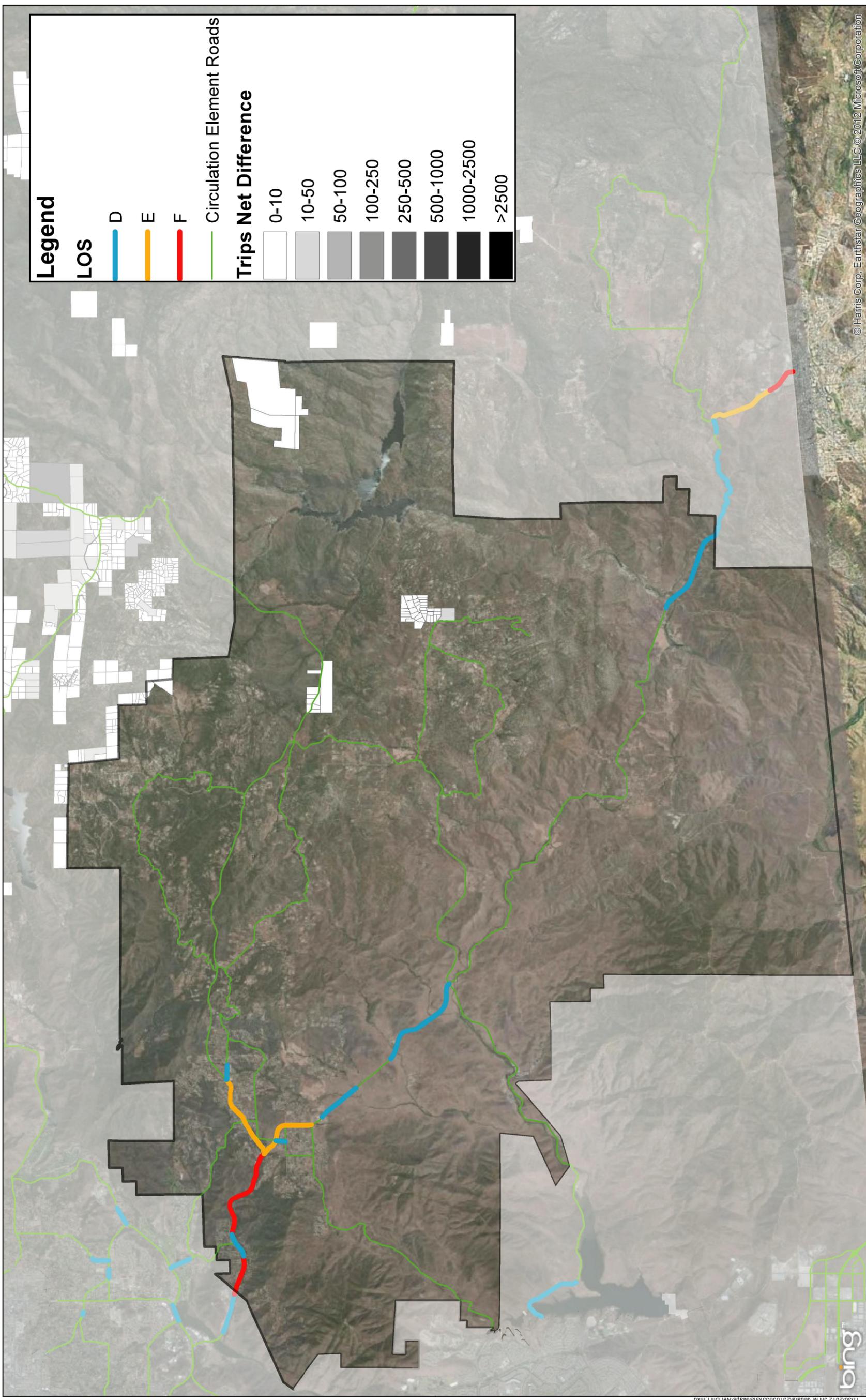
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RBF CONSULTING A SARGIS Company

SARGIS

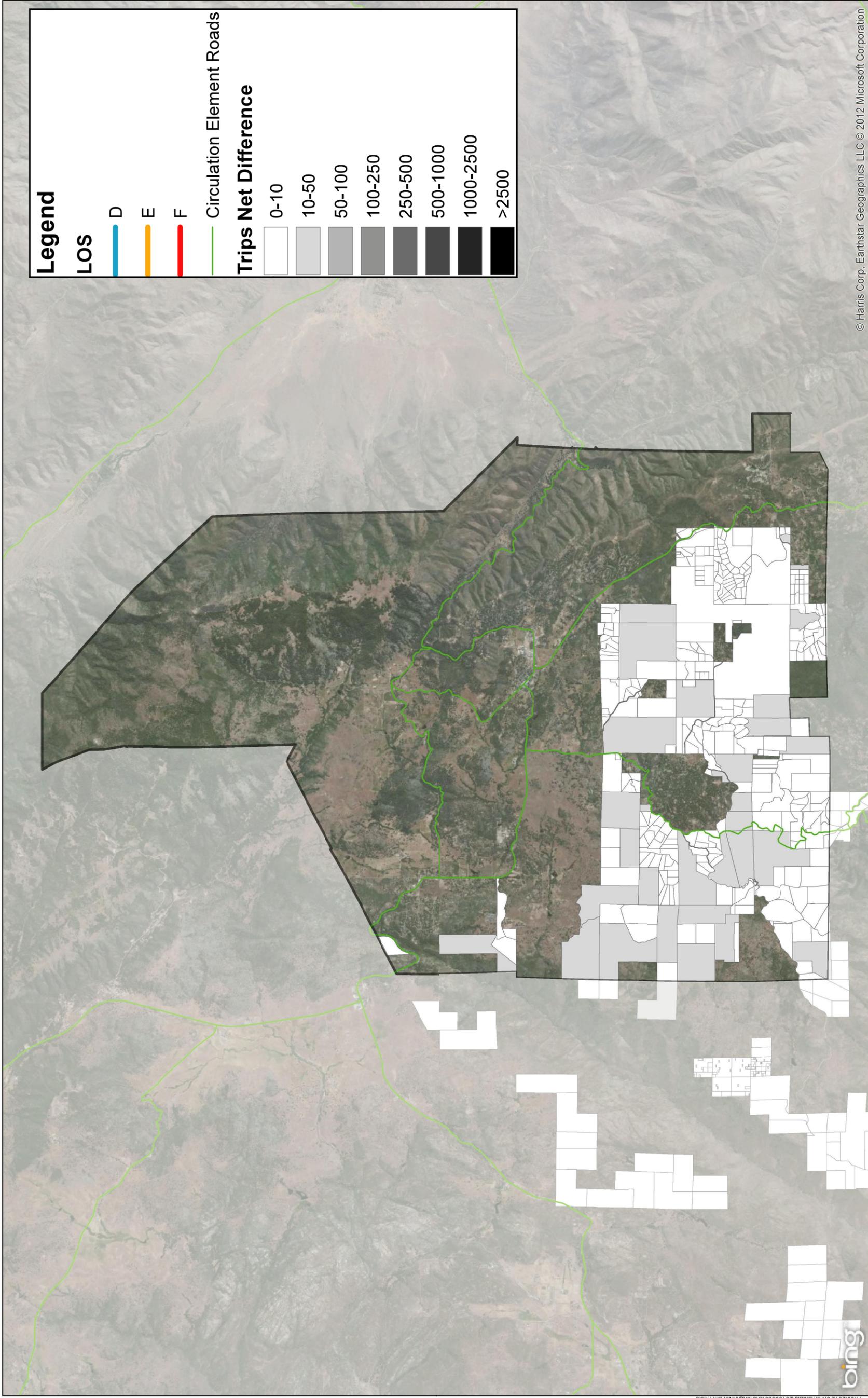
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Net Difference in Trips: Desert



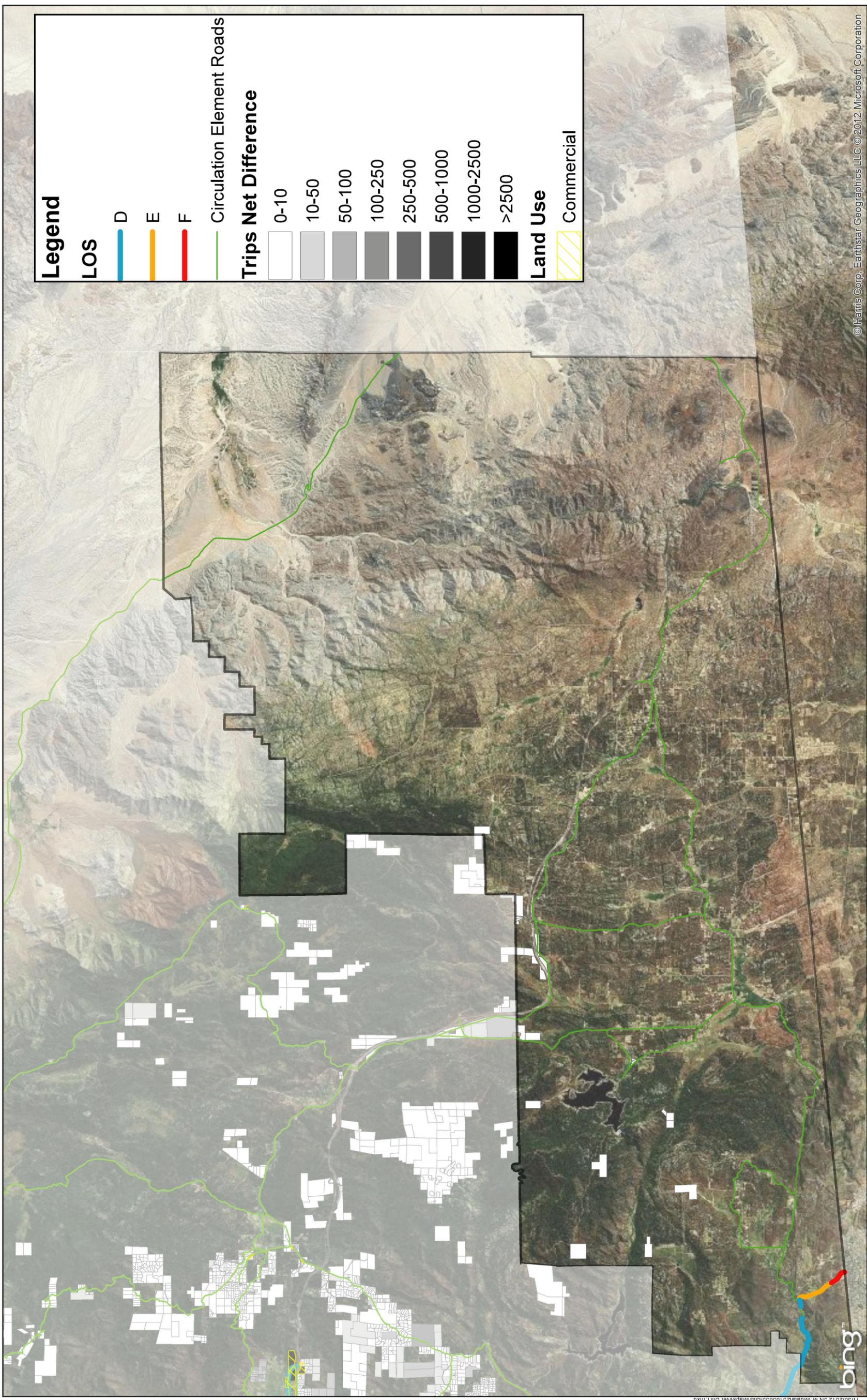
Net Difference in Trips: Jamul-Dulzura

NET INCREASE IN TRIPS WITH PROPOSED LAND USES: JAMUL

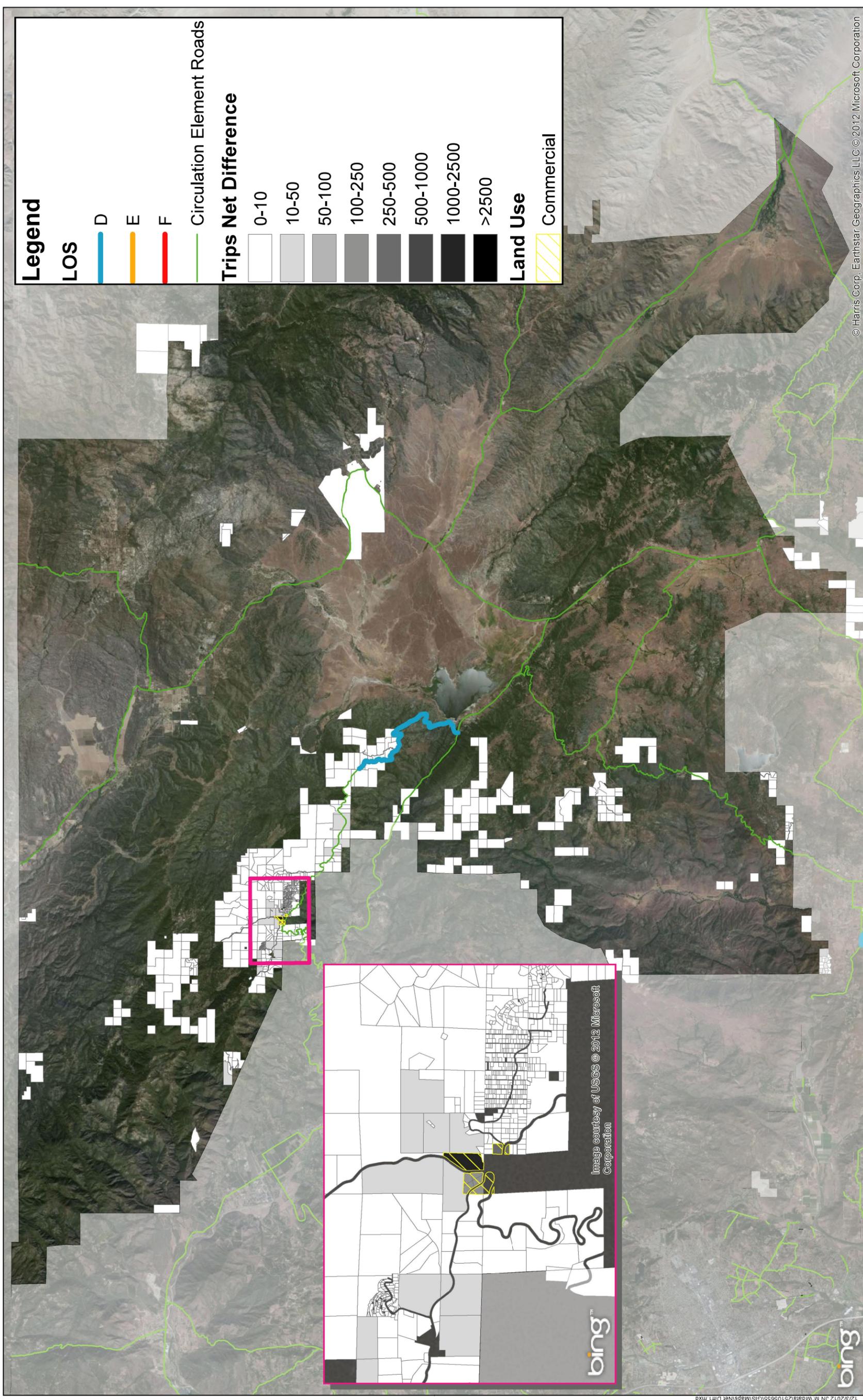


Net Difference in Trips: Julian

NET INCREASE IN TRIPS WITH PROPOSED LAND USES: JULIAN

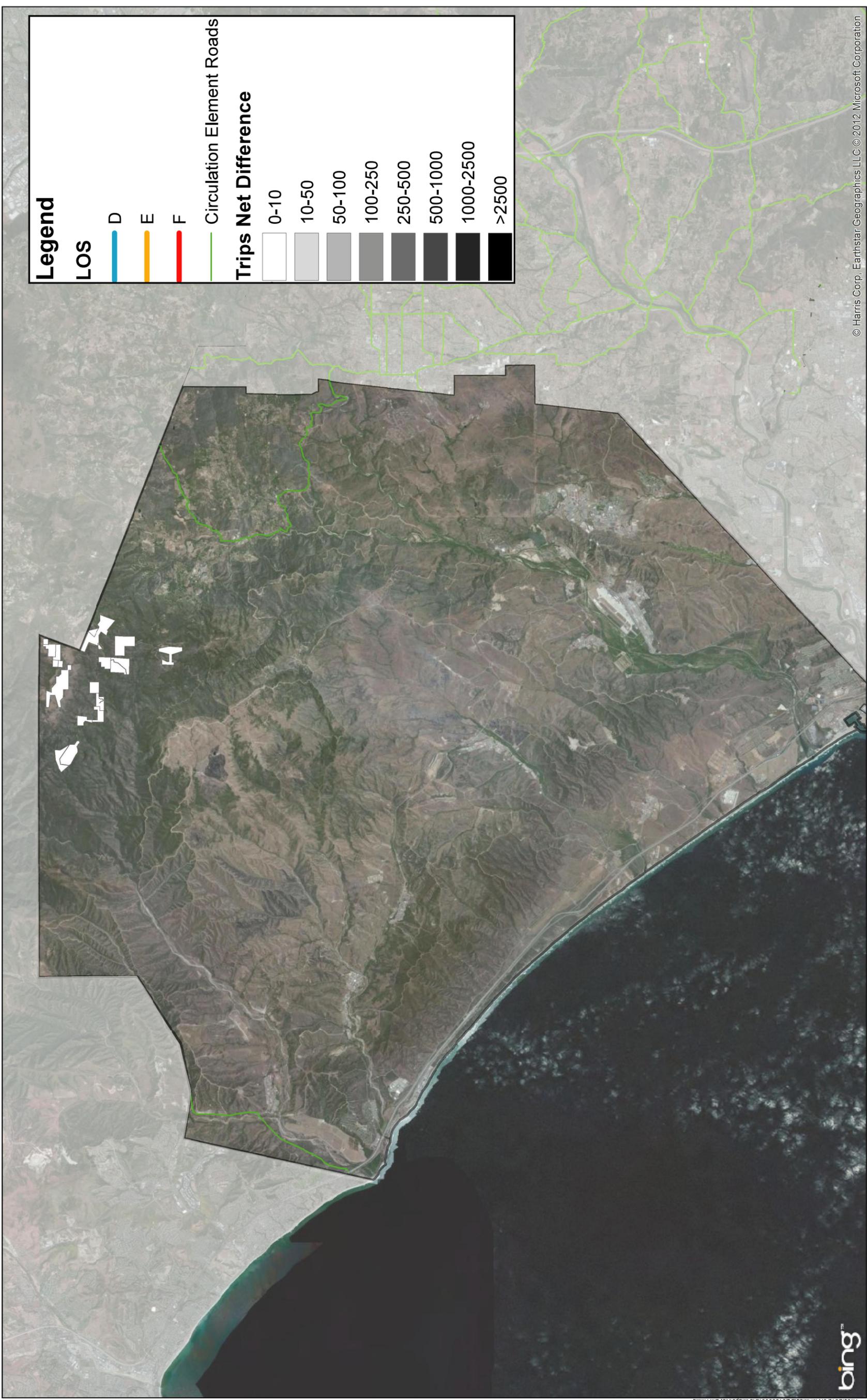


Net Difference in Trips: Mountain Empire

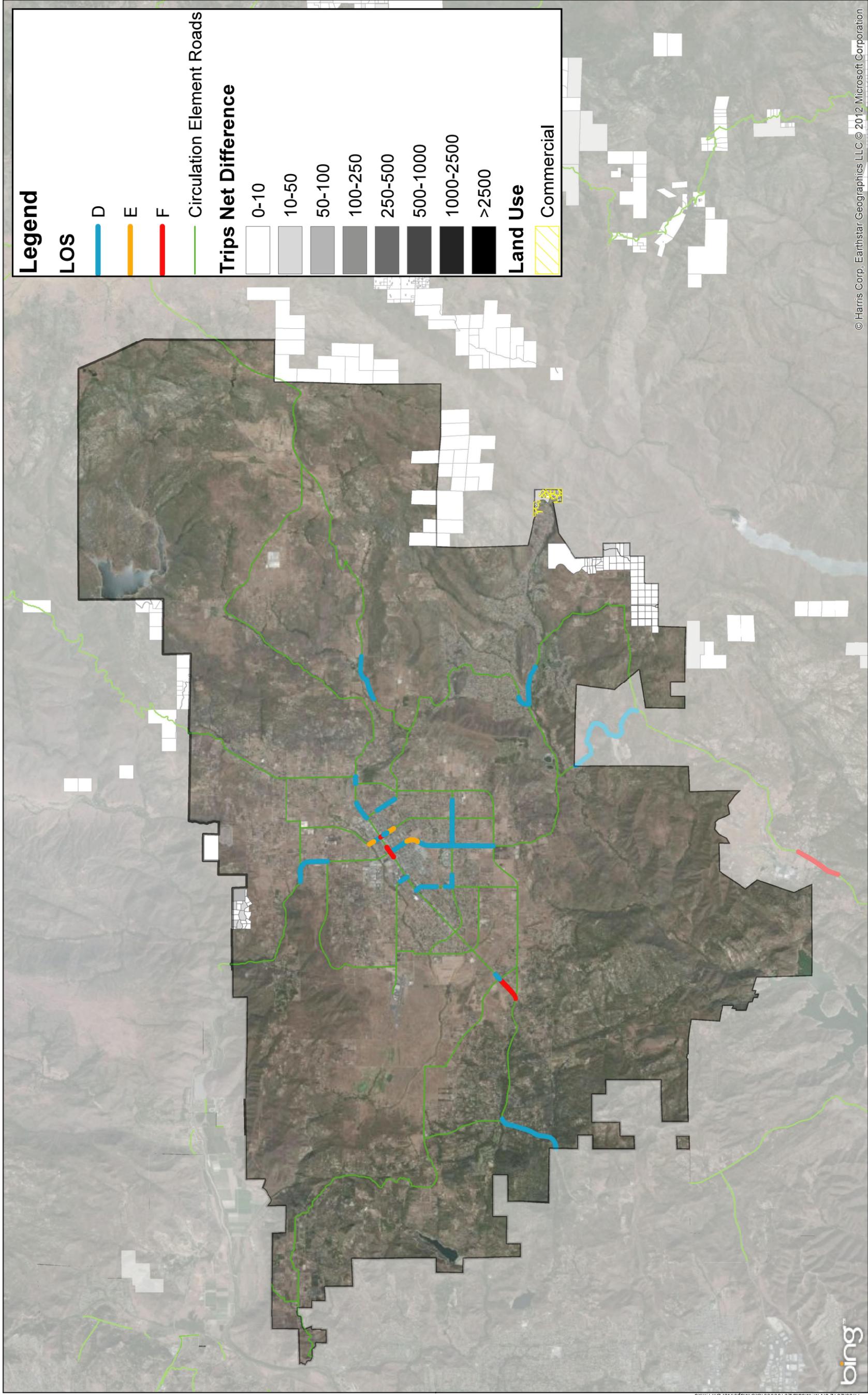


Net Difference in Trips: North Mountain

NET INCREASE IN TRIPS WITH PROPOSED LAND USES: NORTH MOUNTAIN



Net Difference in Trips: Pendleton De-Luz



Legend

LOS

D

E

F

Circulation Element Roads

Trips Net Difference

0-10

10-50

50-100

100-250

250-500

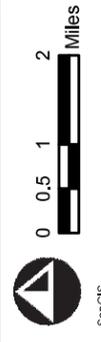
500-1000

1000-2500

>2500

Land Use

Commercial

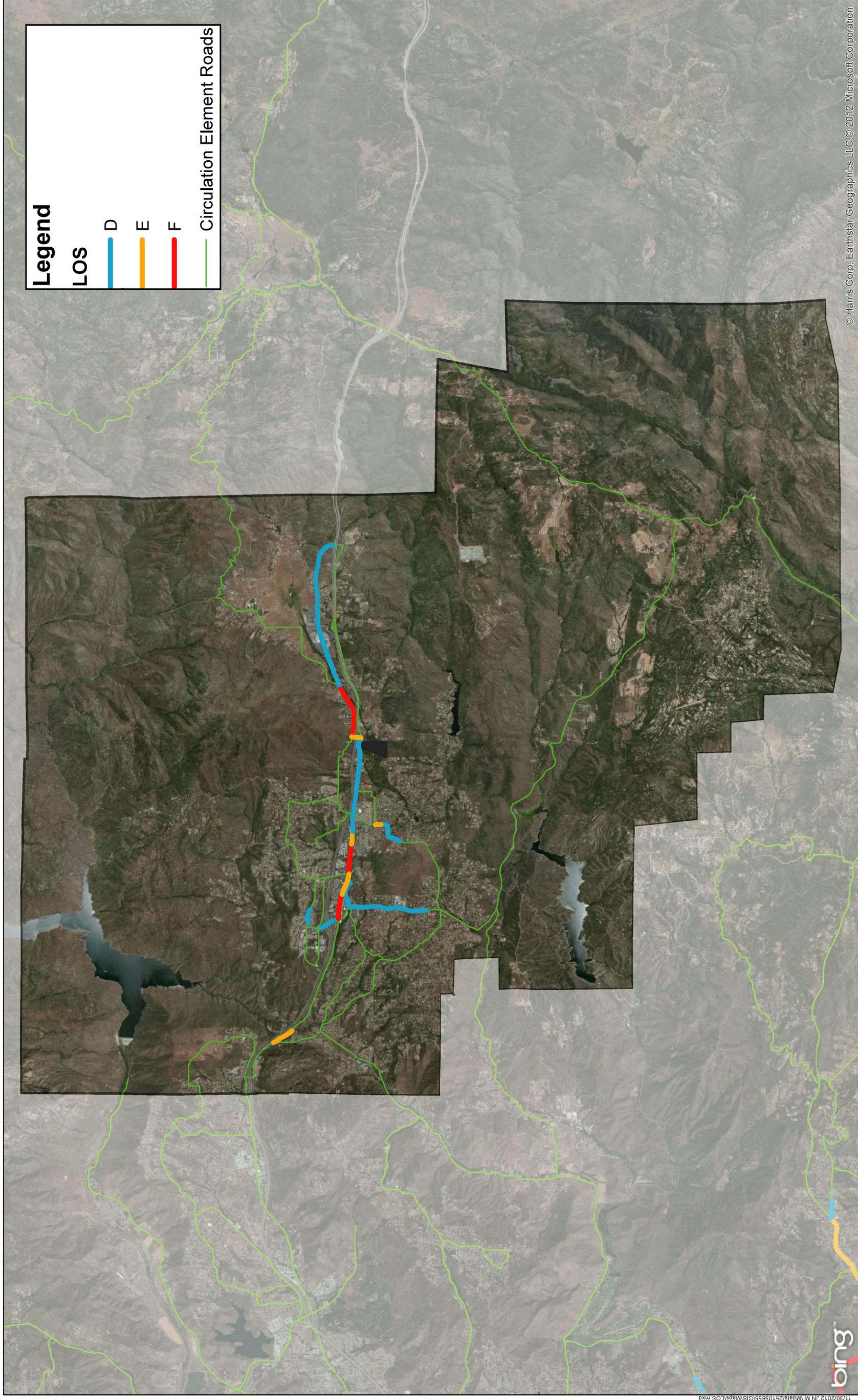


Net Difference in Trips: Ramona

NET INCREASE IN TRIPS WITH PROPOSED LAND USES: RAMONA



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Legend

LOS

D

E

F

Circulation Element Roads

LOS: Alpine

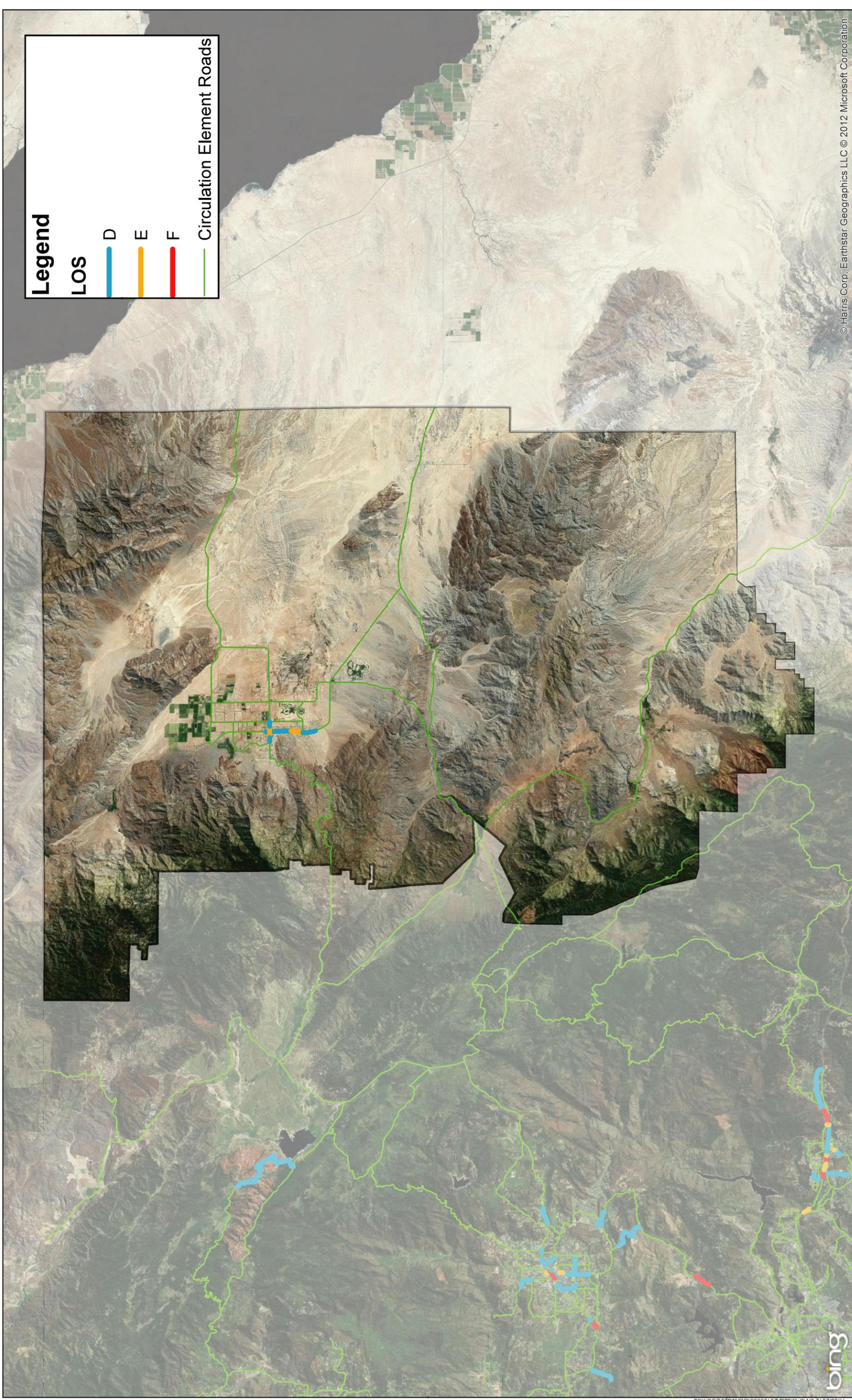
LOS D, E AND F ROADWAY SEGMENTS: ALPINE

JN 130874 DECEMBER 2012



EXHIBIT 19

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Legend

LOS

D

E

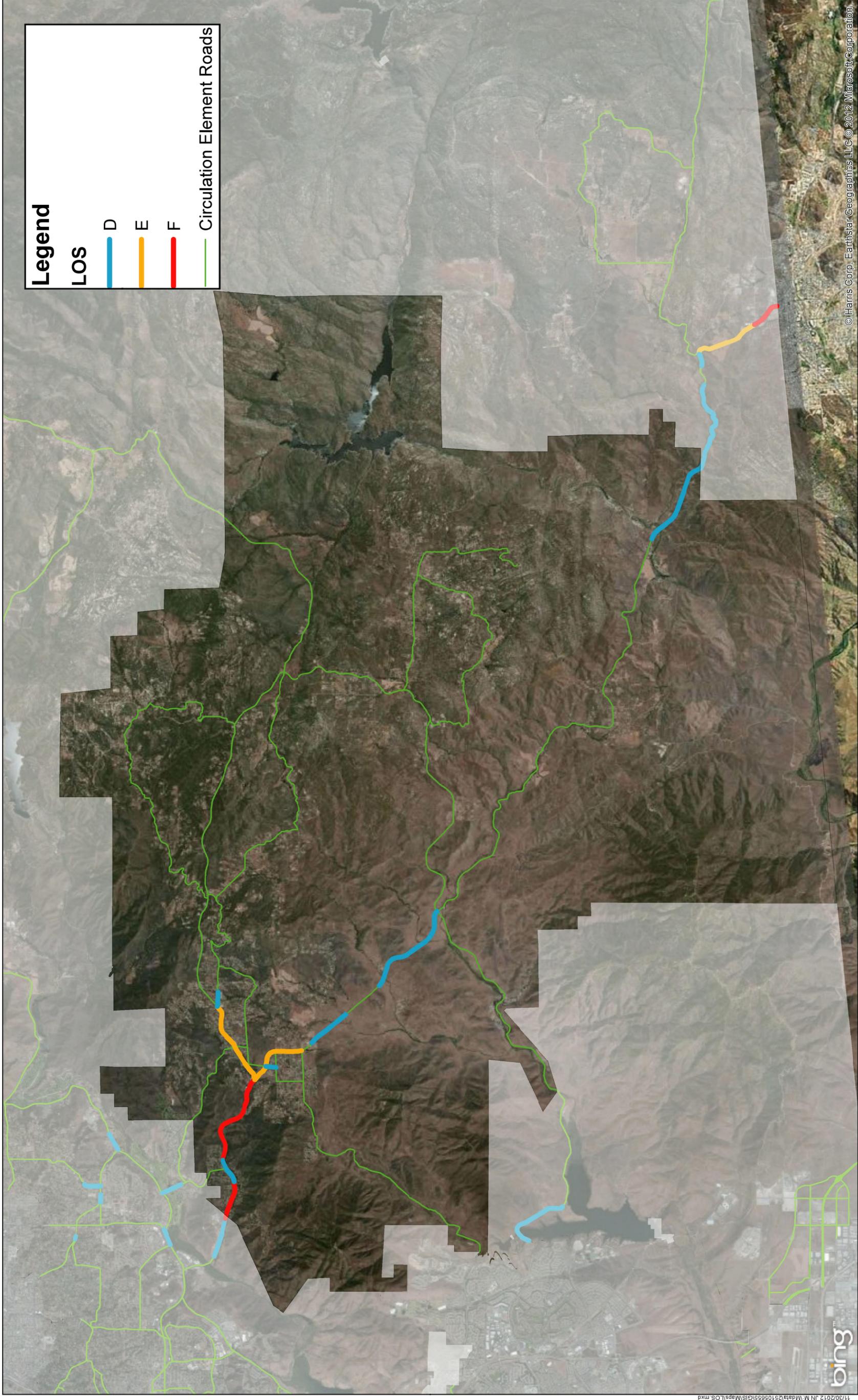
F

Circulation Element Roads



LOS: Desert

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Legend

LOS

D

E

F

Circulation Element Roads



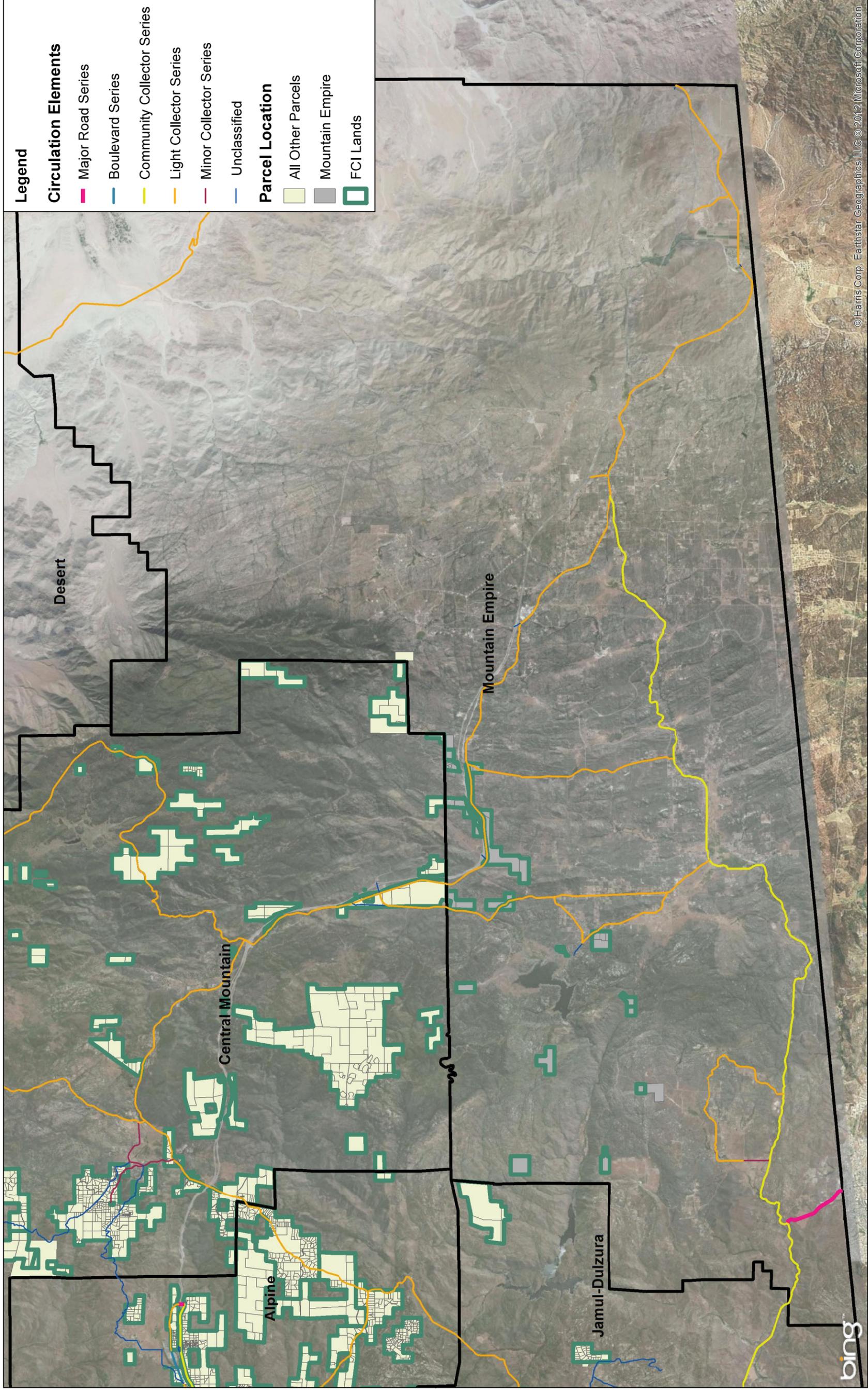
LOS: Jamul-Dulzura

LOS D, E, AND F ROADWAY SEGMENTS: JAMUL

EXHIBIT 21



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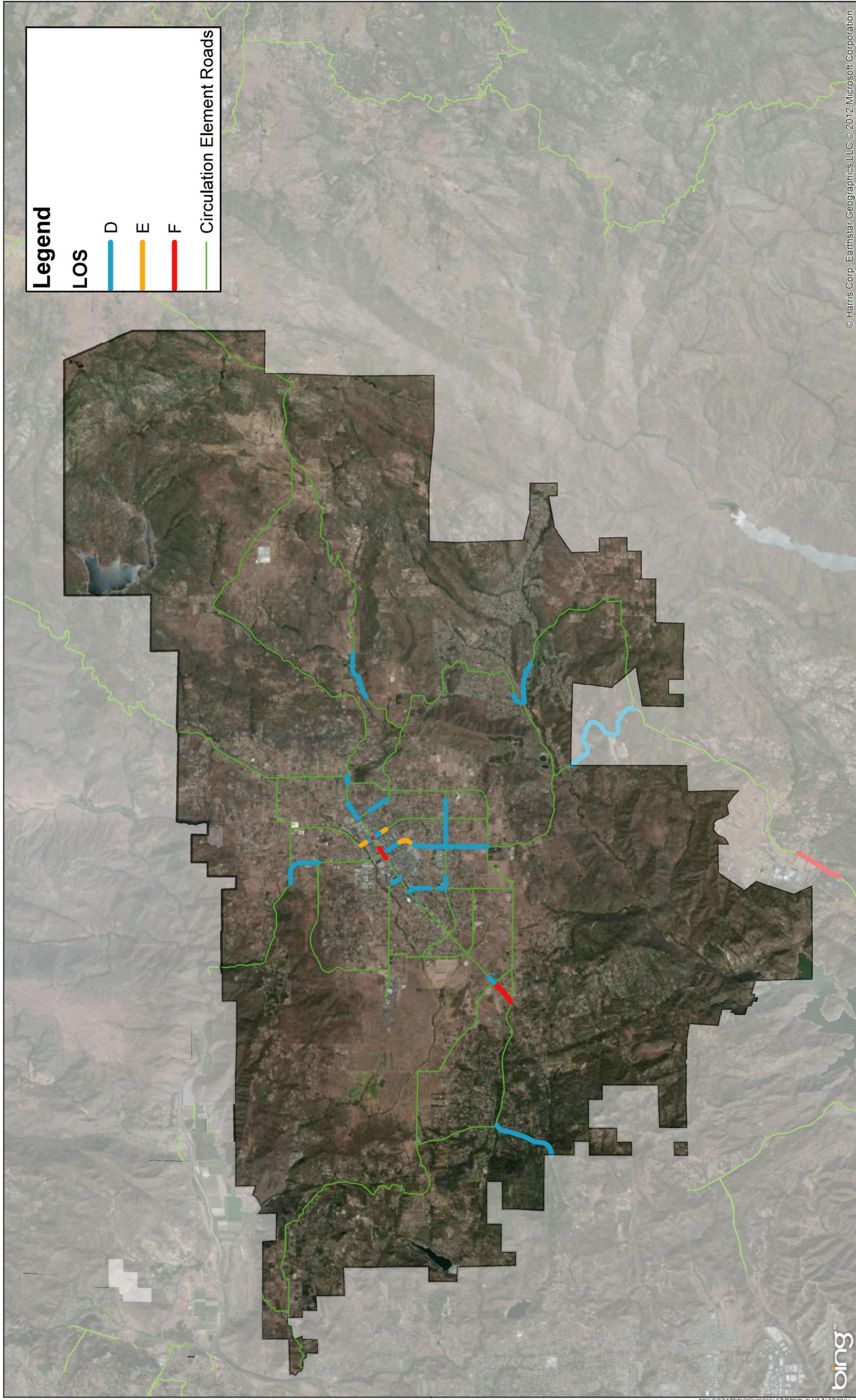
FCI Lands General Plan Amendment: Mountain Empire

LOS D, E AND F ROADWAY SEGMENTS: MOUNTAIN EMPIRE

JN 130874 DECEMBER 2012



EXHIBIT 22



Legend

LOS

D

E

F

Circulation Element Roads



LOS: Ramona

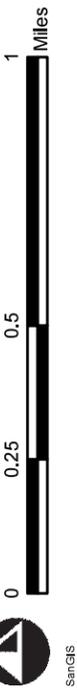
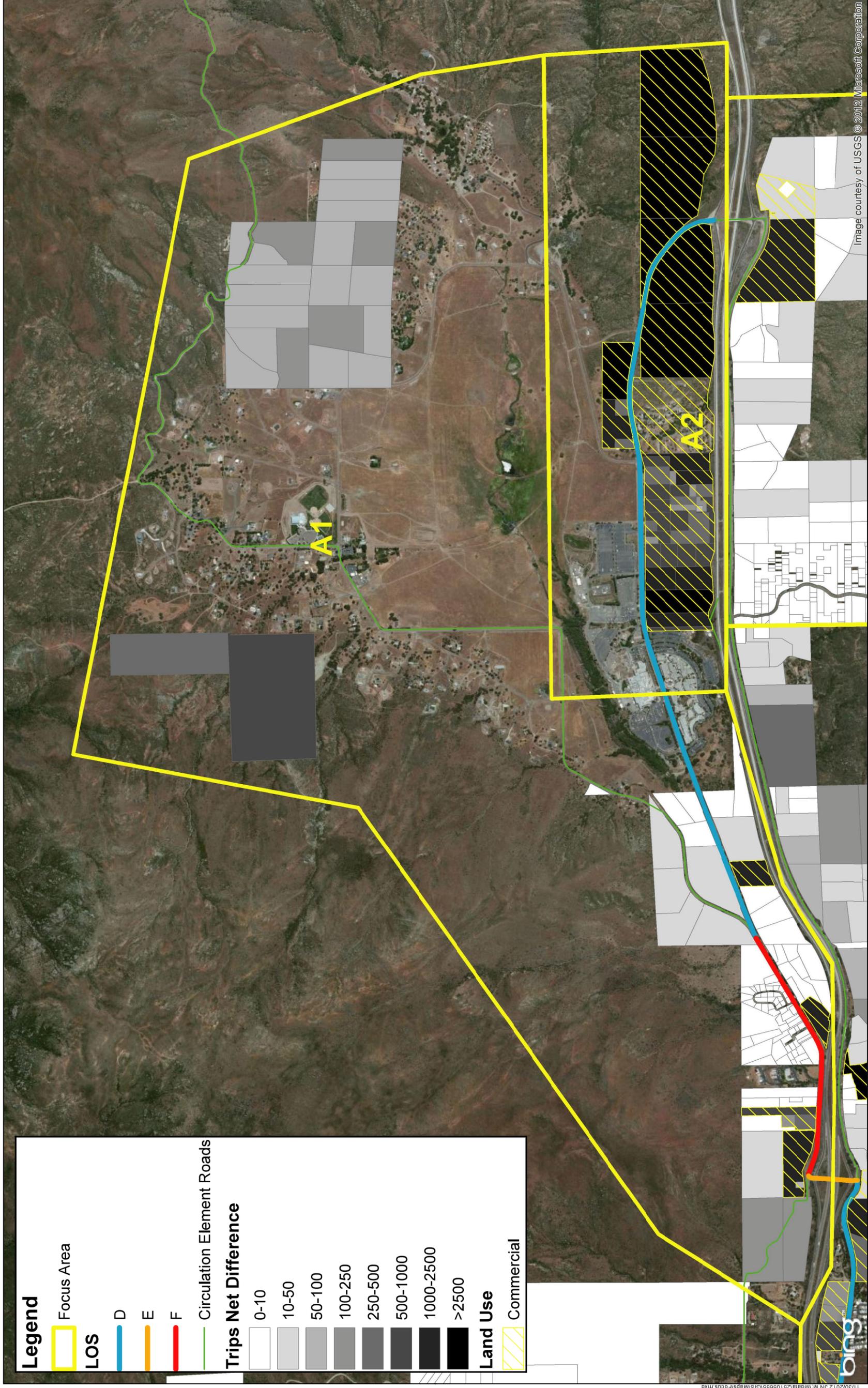
LOS D, E AND F ROADWAY SEGMENTS: RAMONA

EXHIBIT 23

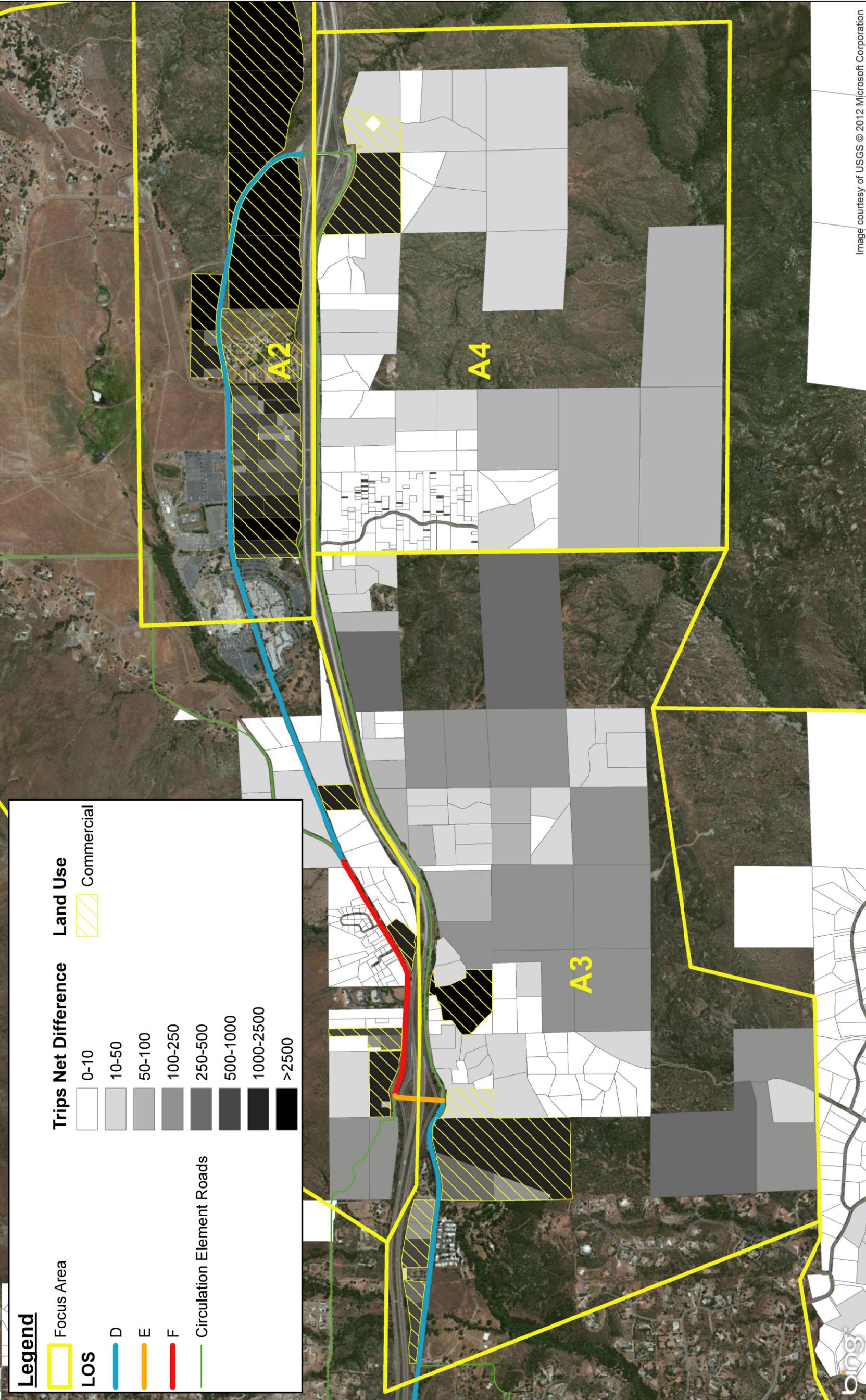


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Net Difference in Trips: Alpine Focus Areas A1-A2



Legend

- Focus Area
- LOS**
- D
- E
- F
- Circulation Element Roads
- Trips Net Difference**
- 0-10
- 10-50
- 50-100
- 100-250
- 250-500
- 500-1000
- 1000-2500
- >2500
- Land Use**
- Commercial

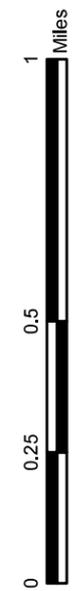
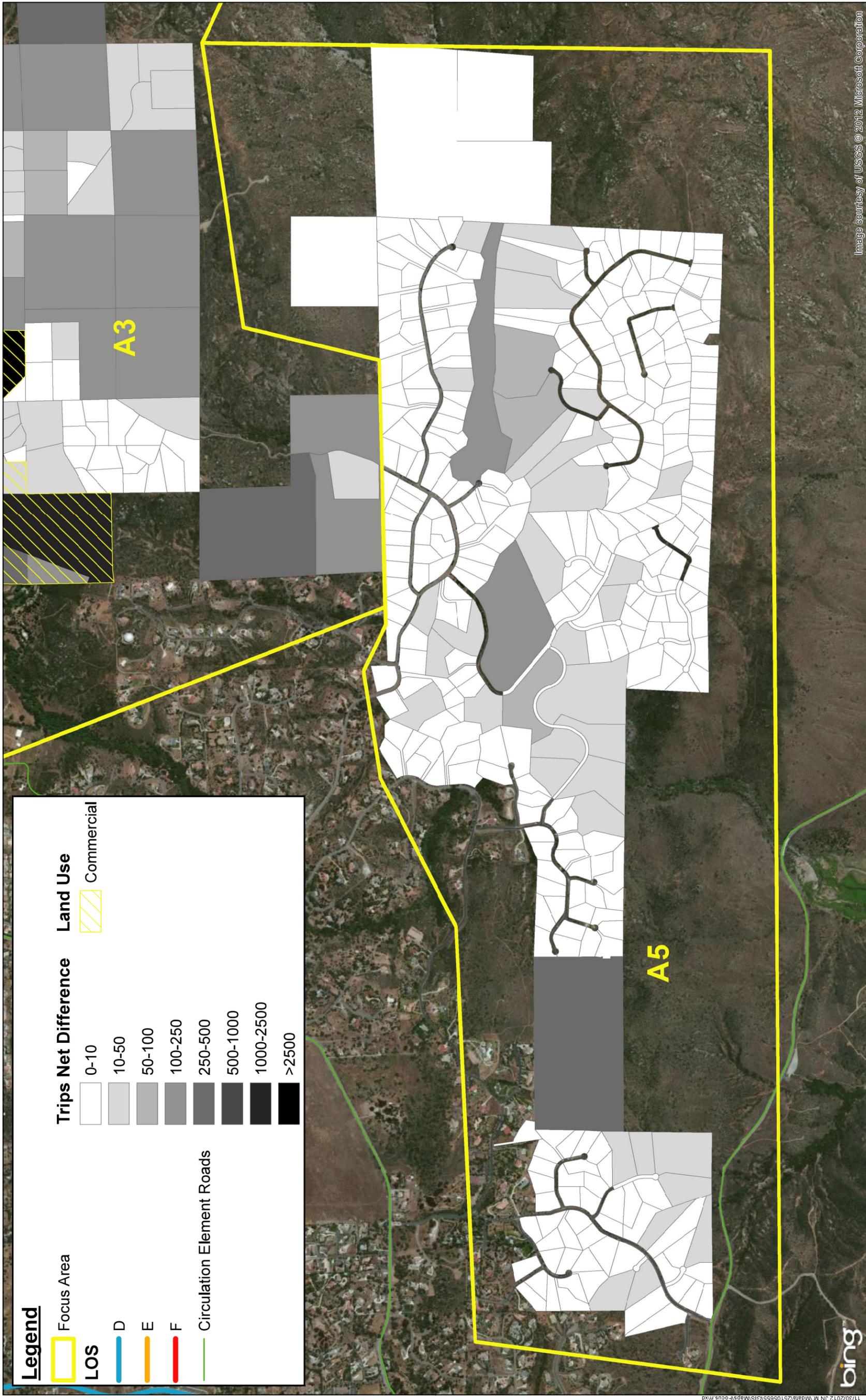


Image courtesy of USGS © 2012 Microsoft Corporation

Net Difference in Trips: Alpine Focus Areas A3-A4



Legend

- Focus Area
- LOS
- D
- E
- F
- Circulation Element Roads
- Trips Net Difference**
- 0-10
- 10-50
- 50-100
- 100-250
- 250-500
- 500-1000
- 1000-2500
- >2500
- Land Use**
- Commercial



Net Difference in Trips: Alpine Focus Areas A5

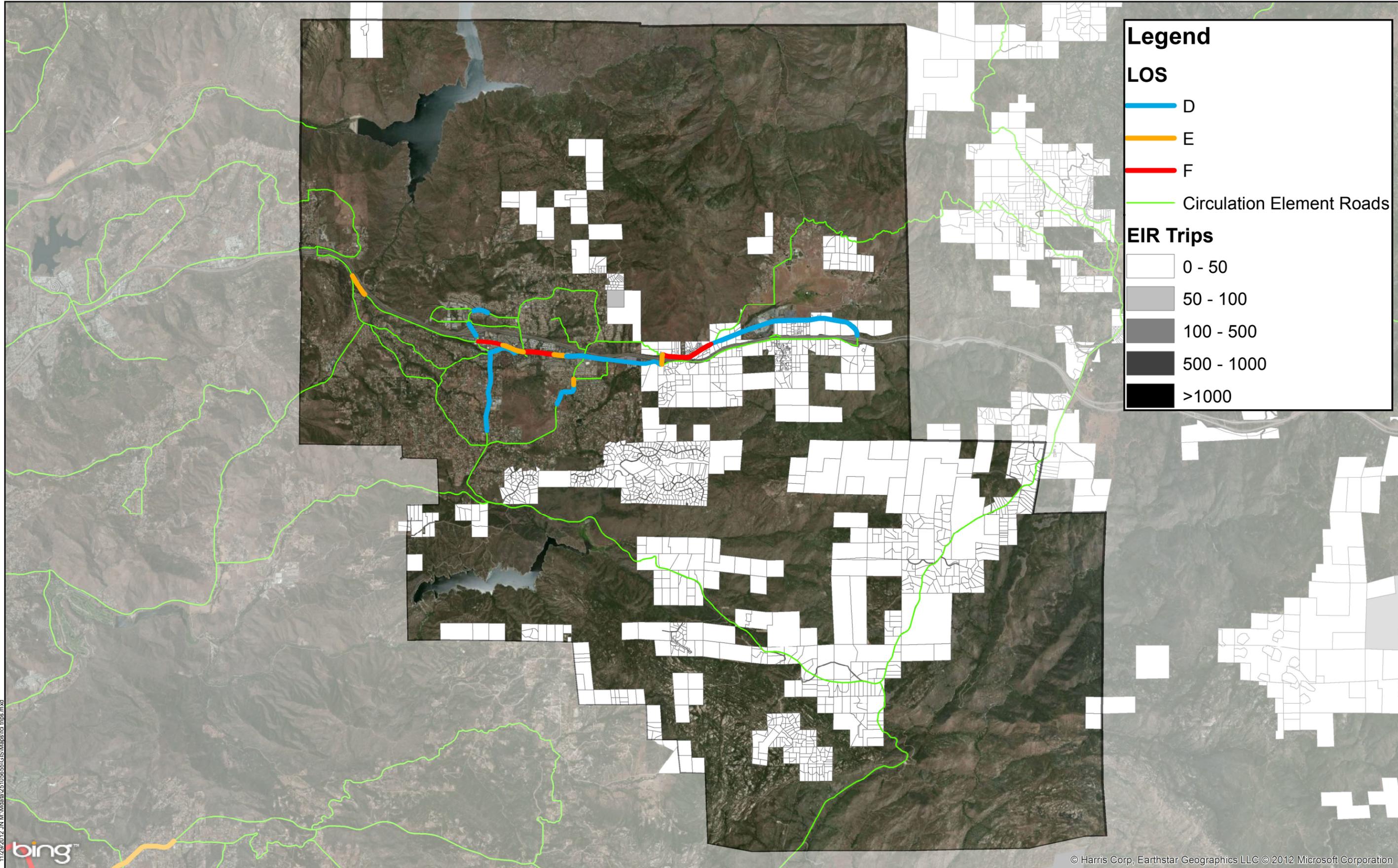
Image courtesy of USGS © 2012, Microsoft Corporation

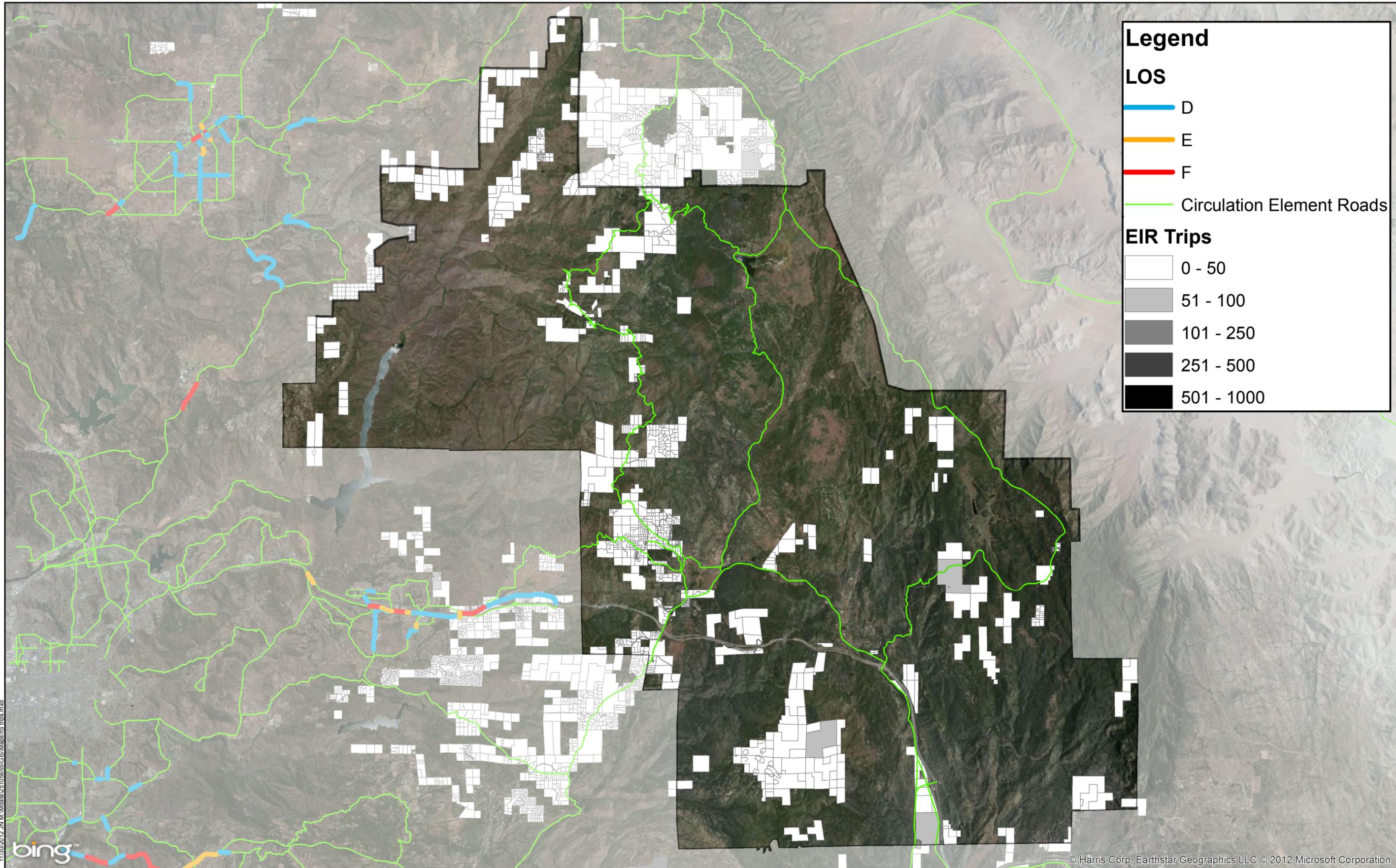
APPENDIX A

Trip Generation Maps

- **GPU EIR Land Uses**
- **Proposed GPA Land Uses**

GPU EIR Land Uses

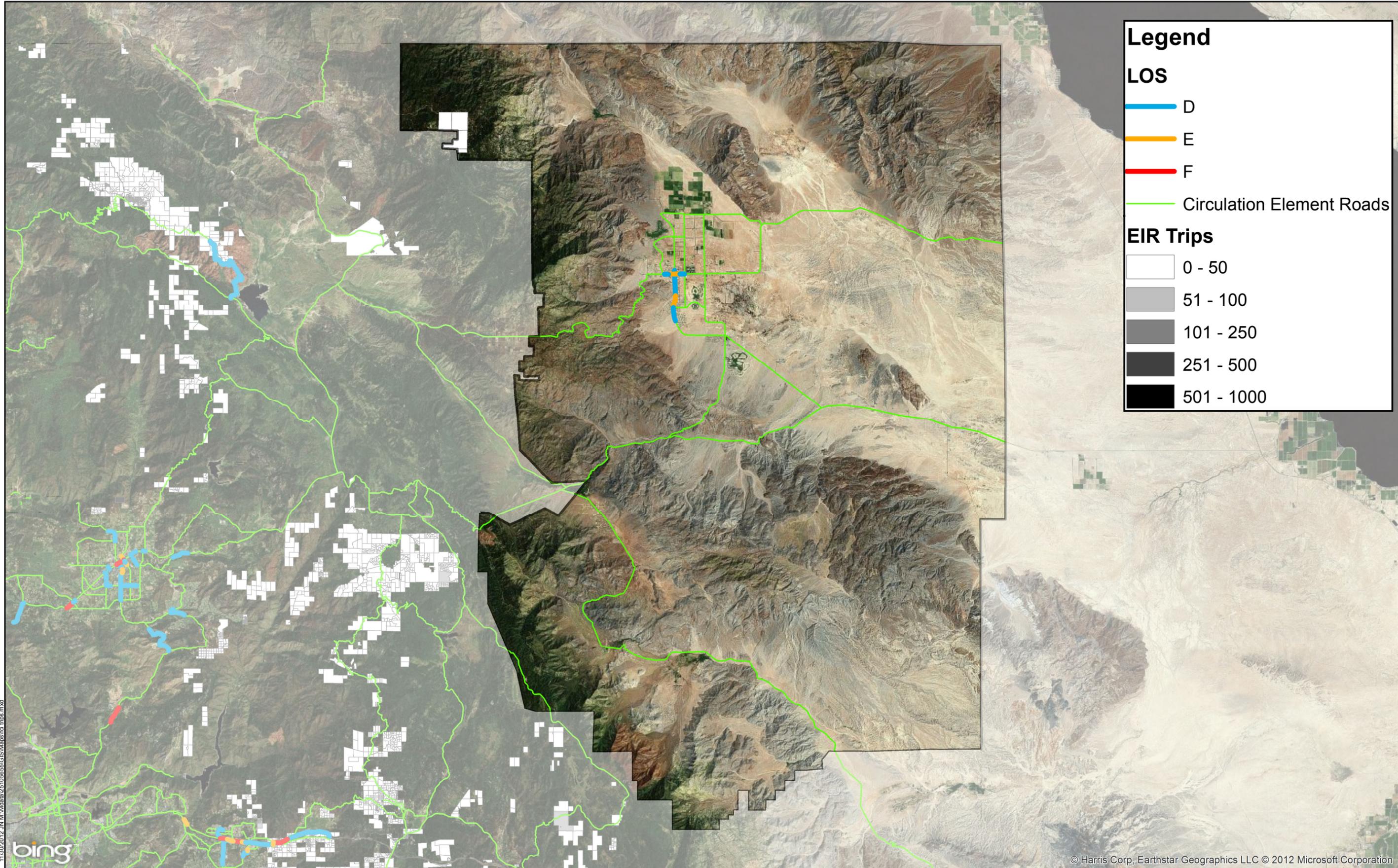




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Legend

LOS

- D
- E
- F
- Circulation Element Roads

EIR Trips

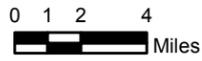
- 0 - 50
- 51 - 100
- 101 - 250
- 251 - 500
- 501 - 1000

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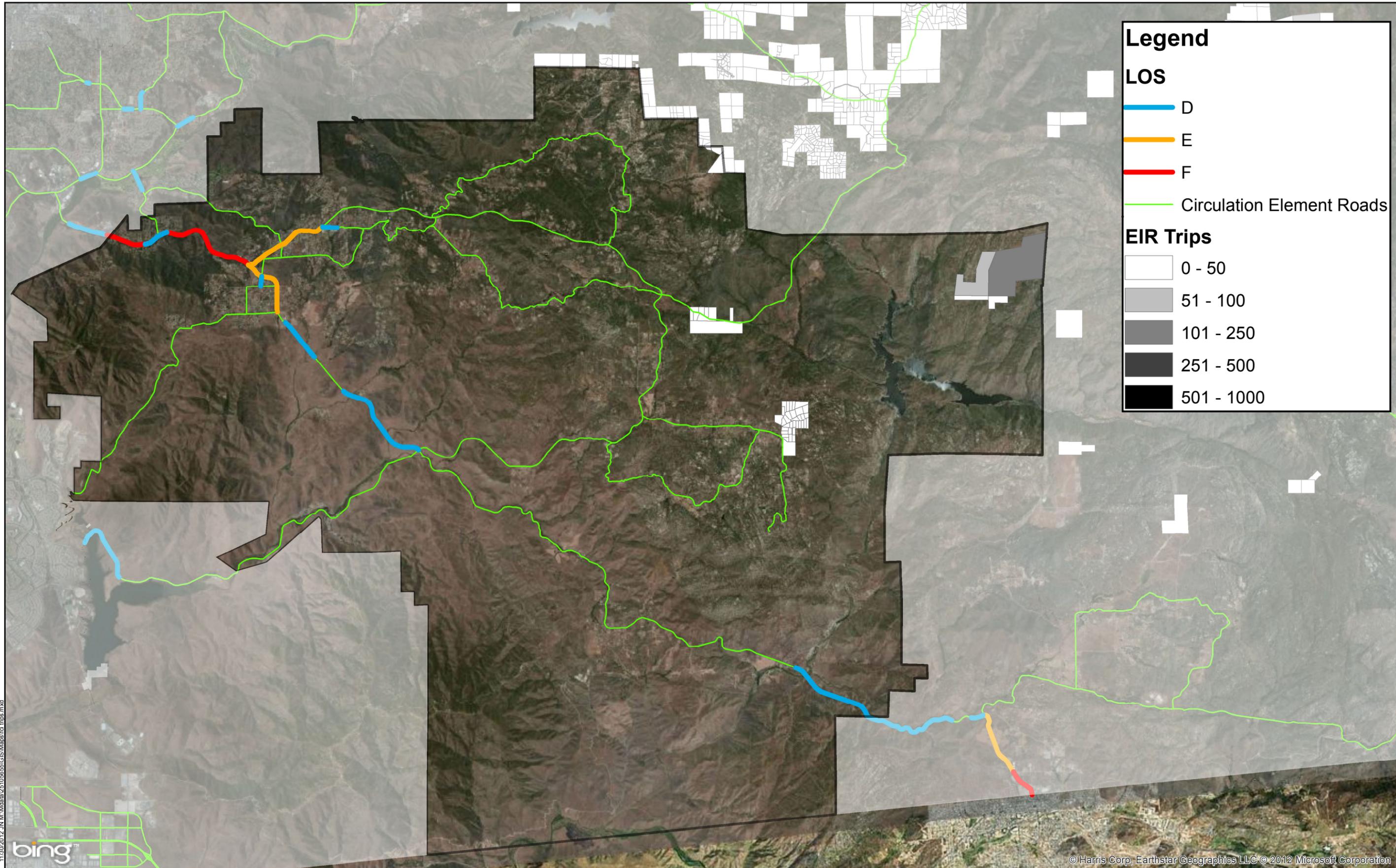
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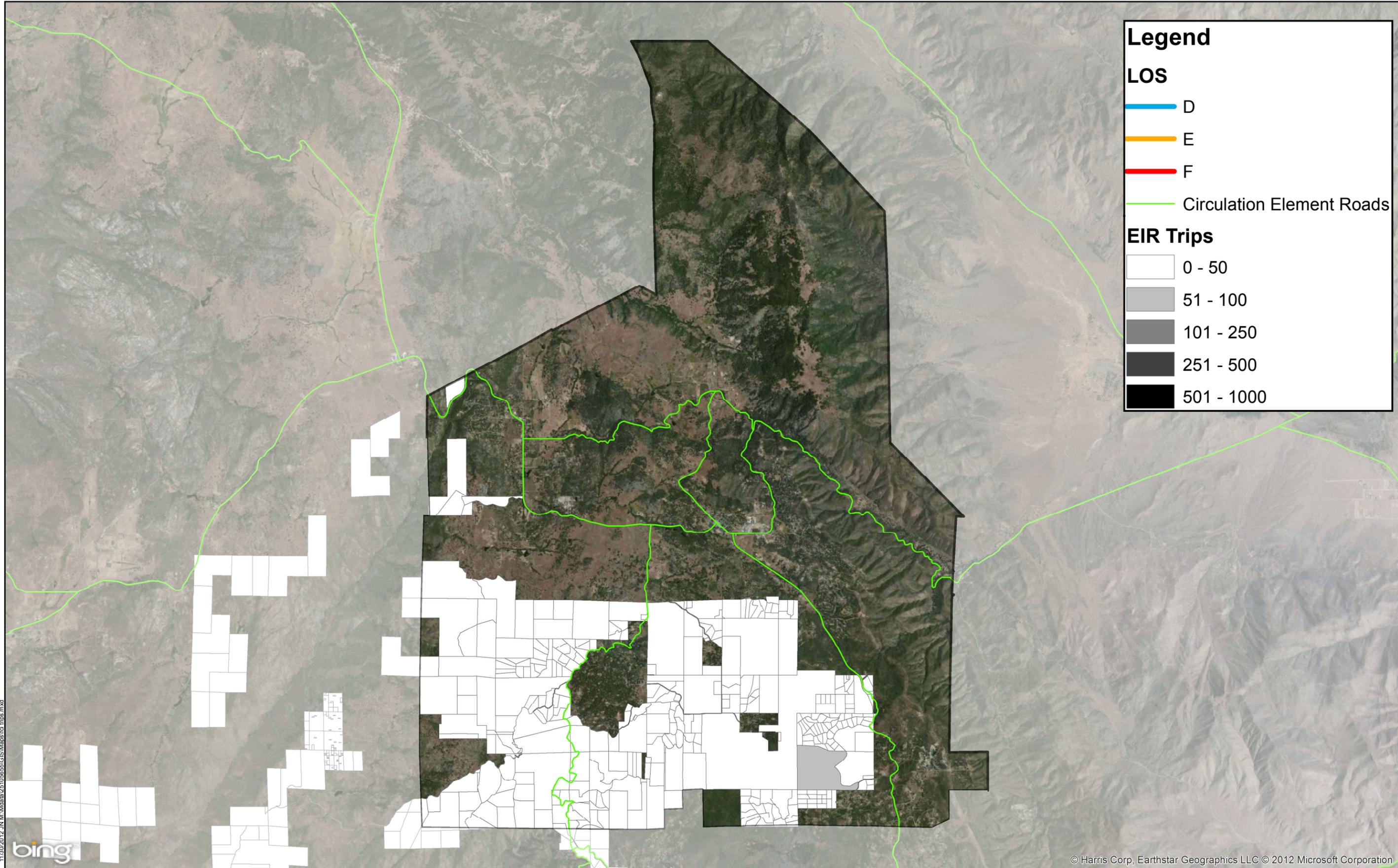
EIR Trips: Desert



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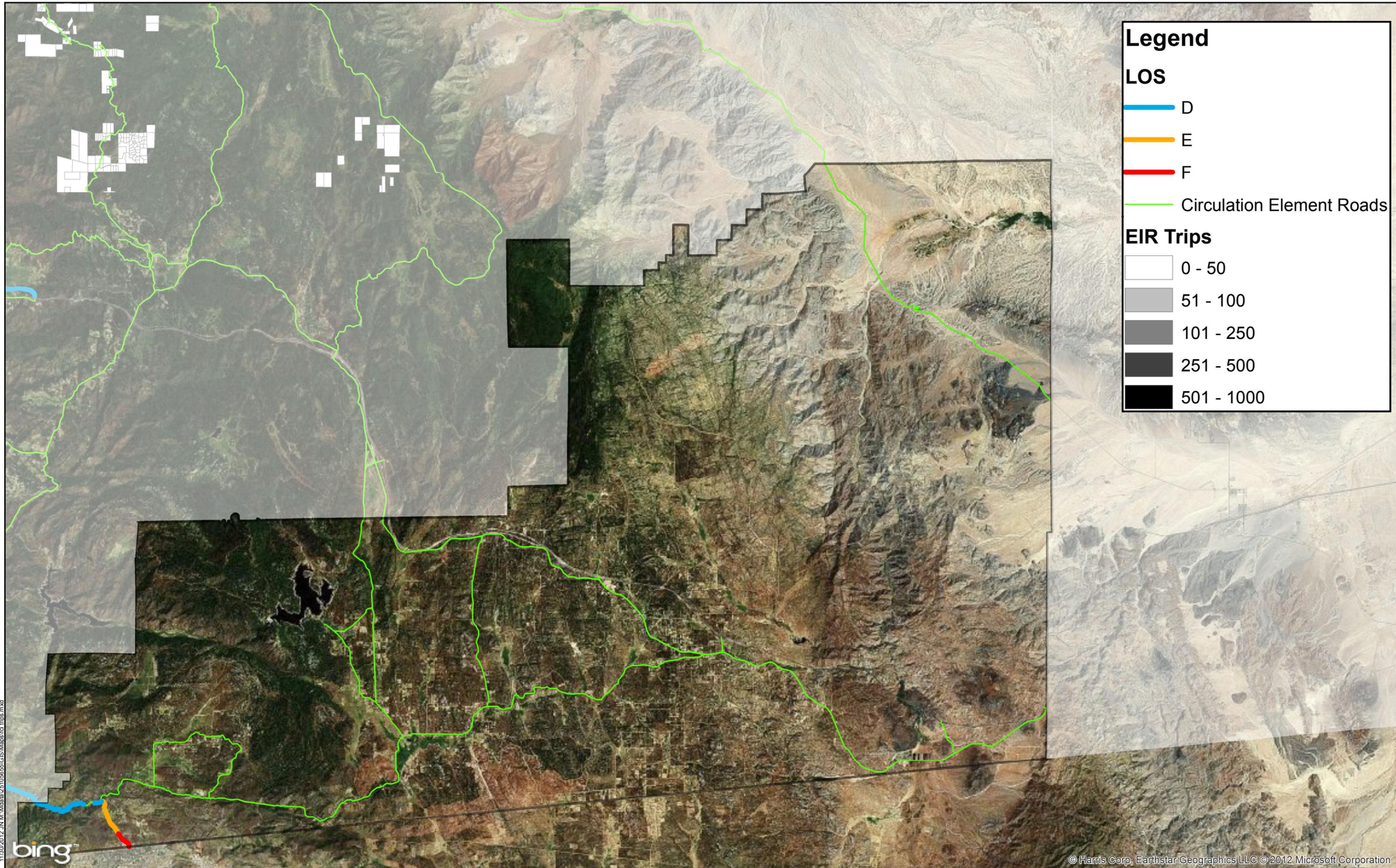
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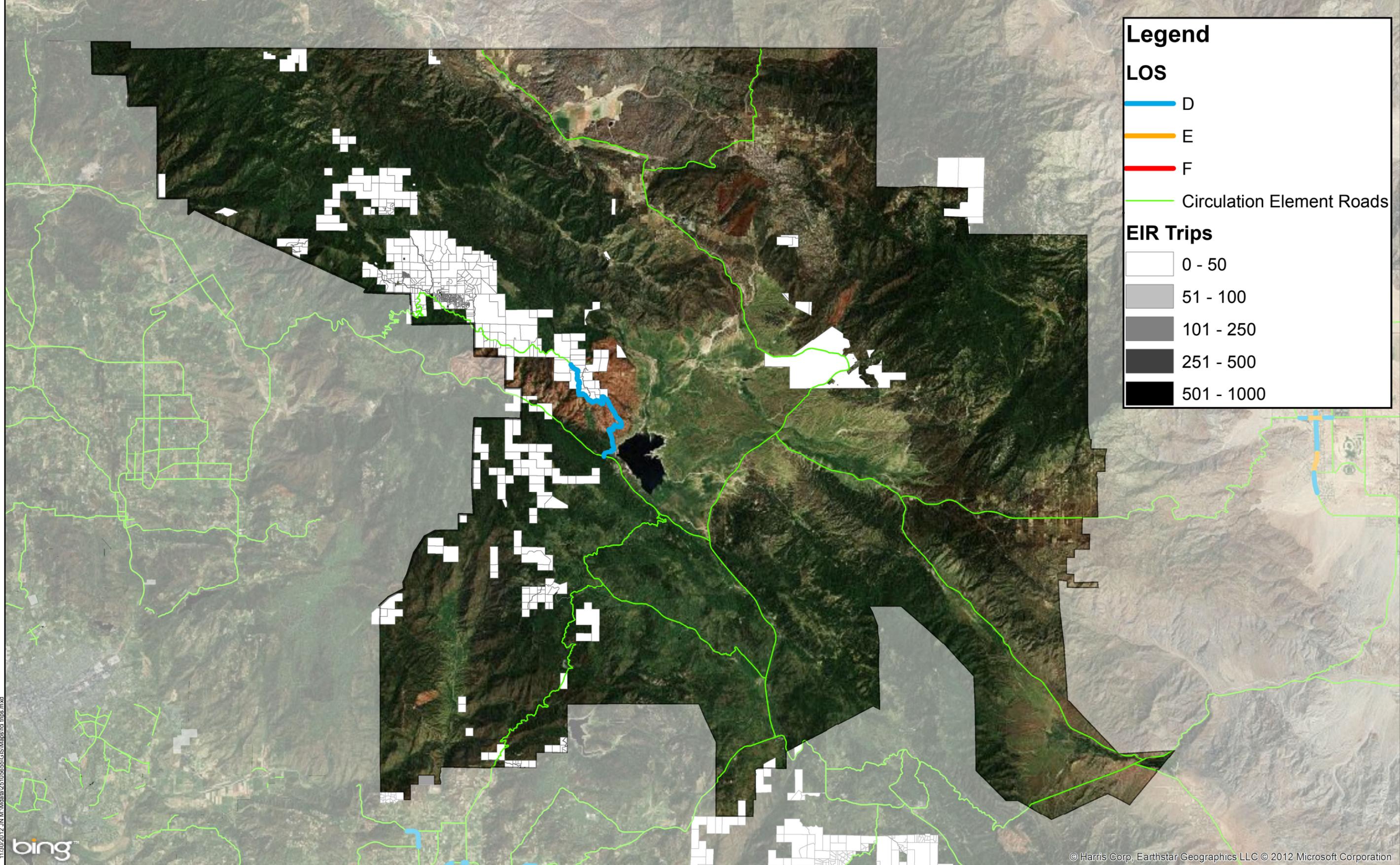
EIR Trips: Julian



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Legend

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EIR Trips

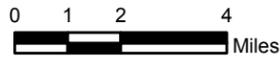
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EIR Trips: North Mountain



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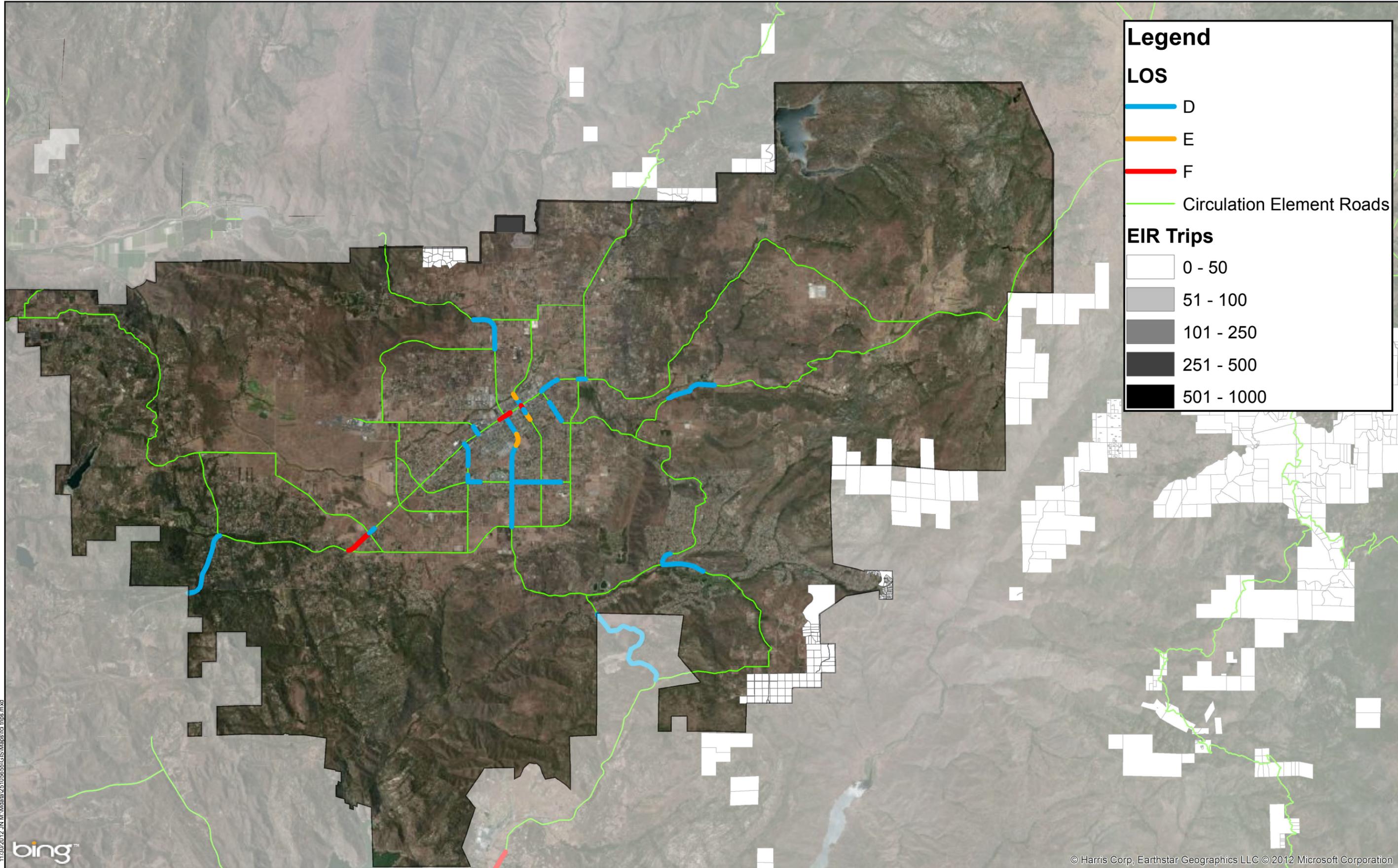
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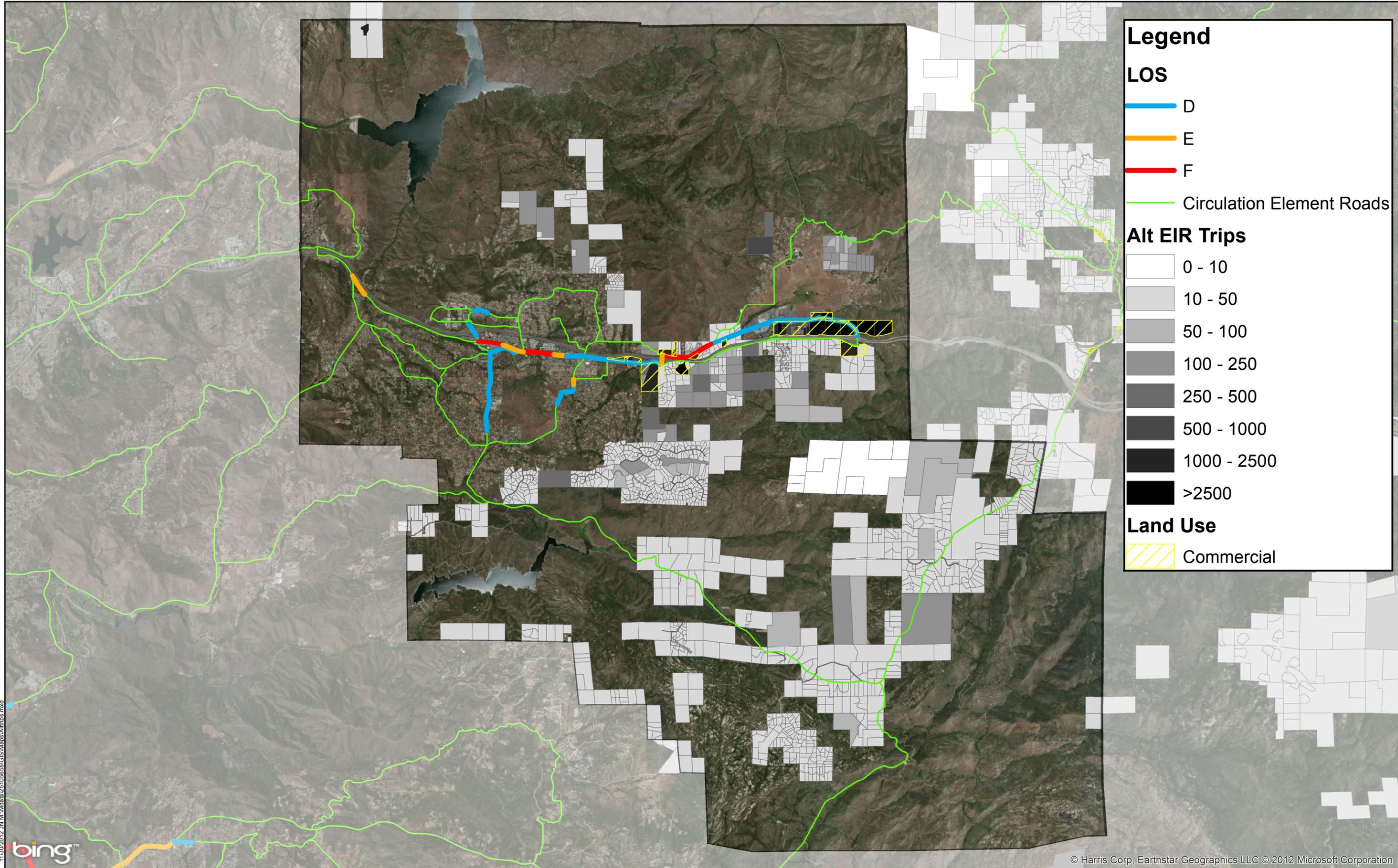
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EIR Trips: Ramona

Proposed GPA Land Uses



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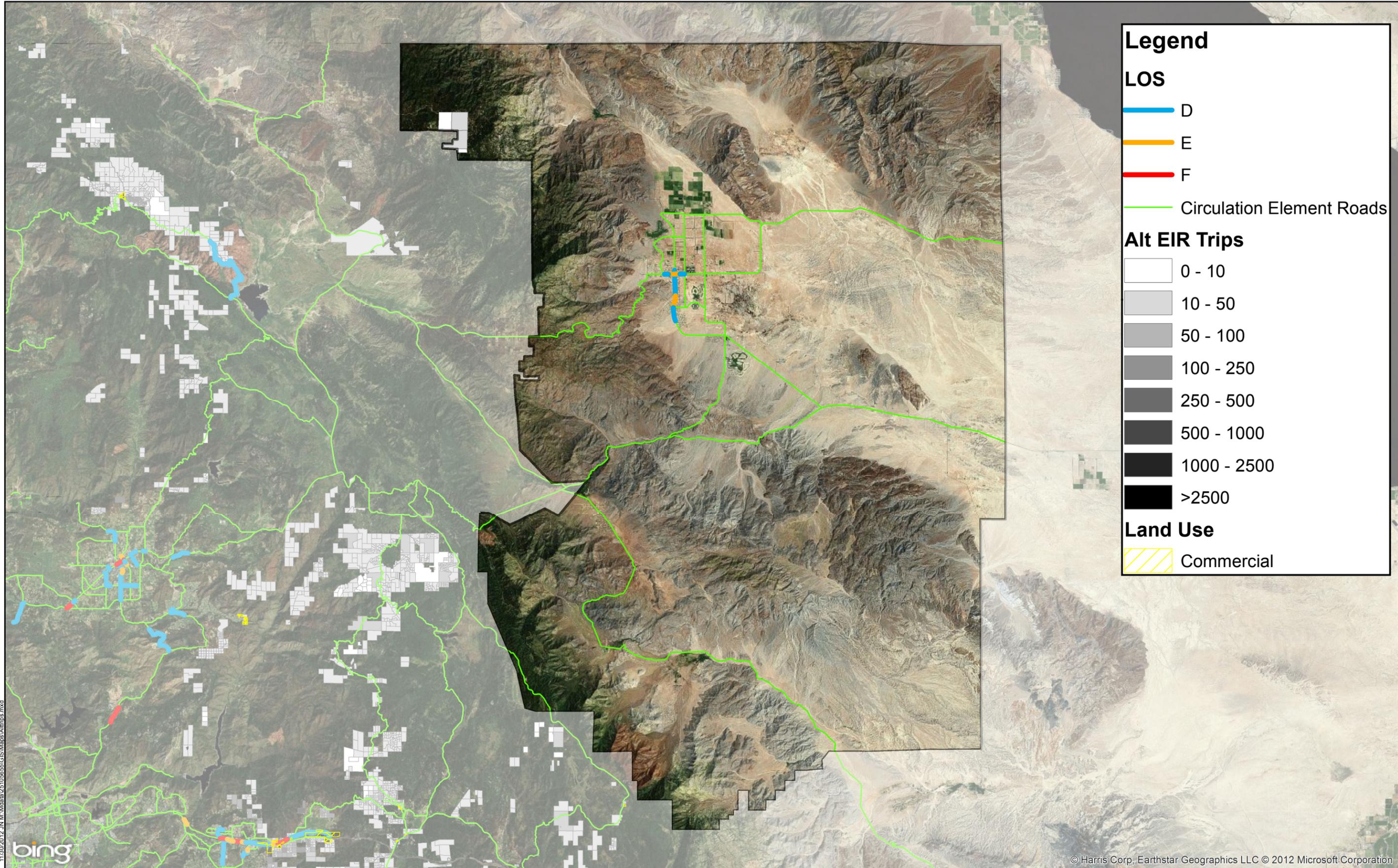
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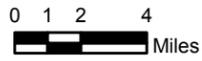
Land Use

- Commercial

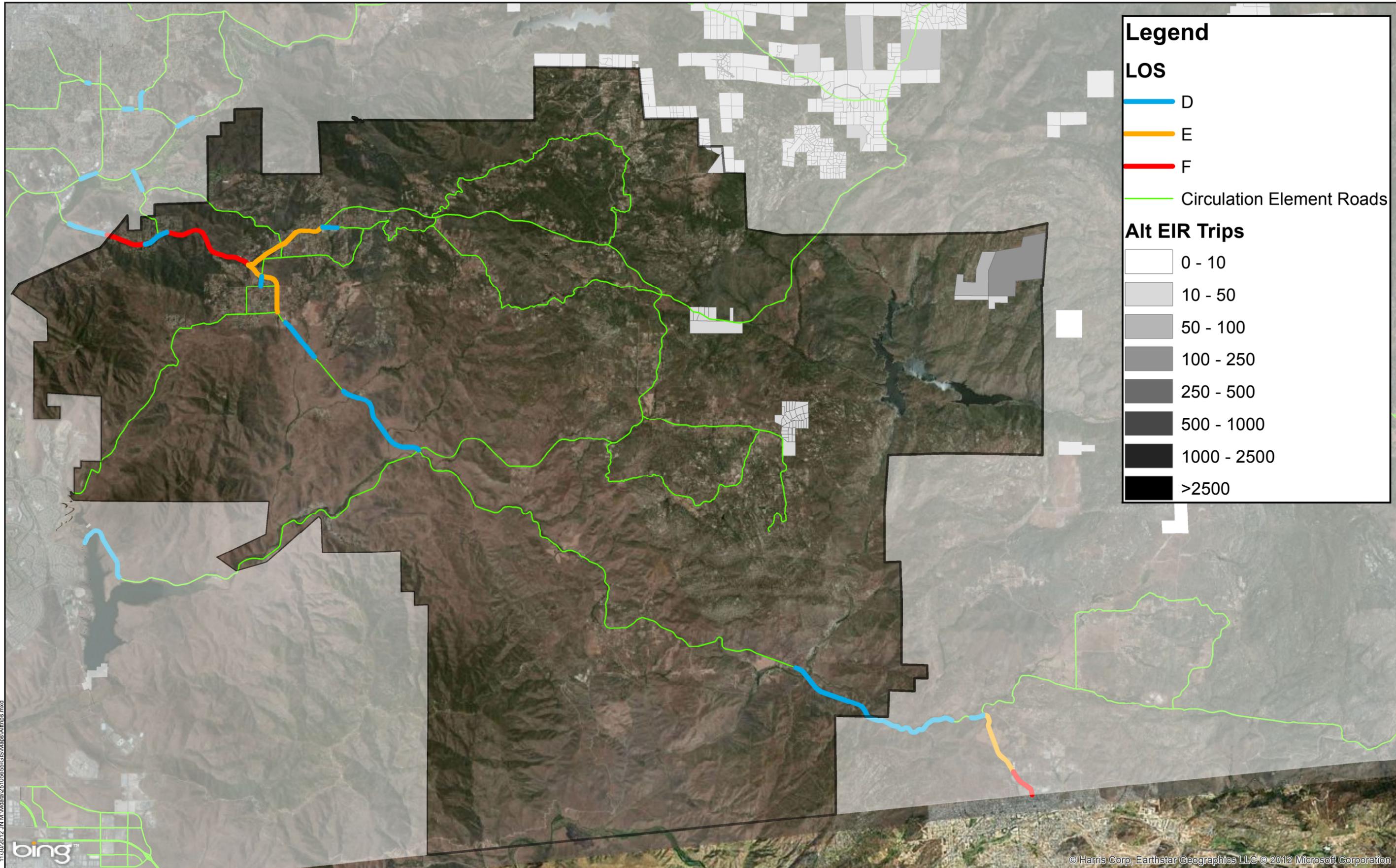
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Alt EIR Trips: Desert



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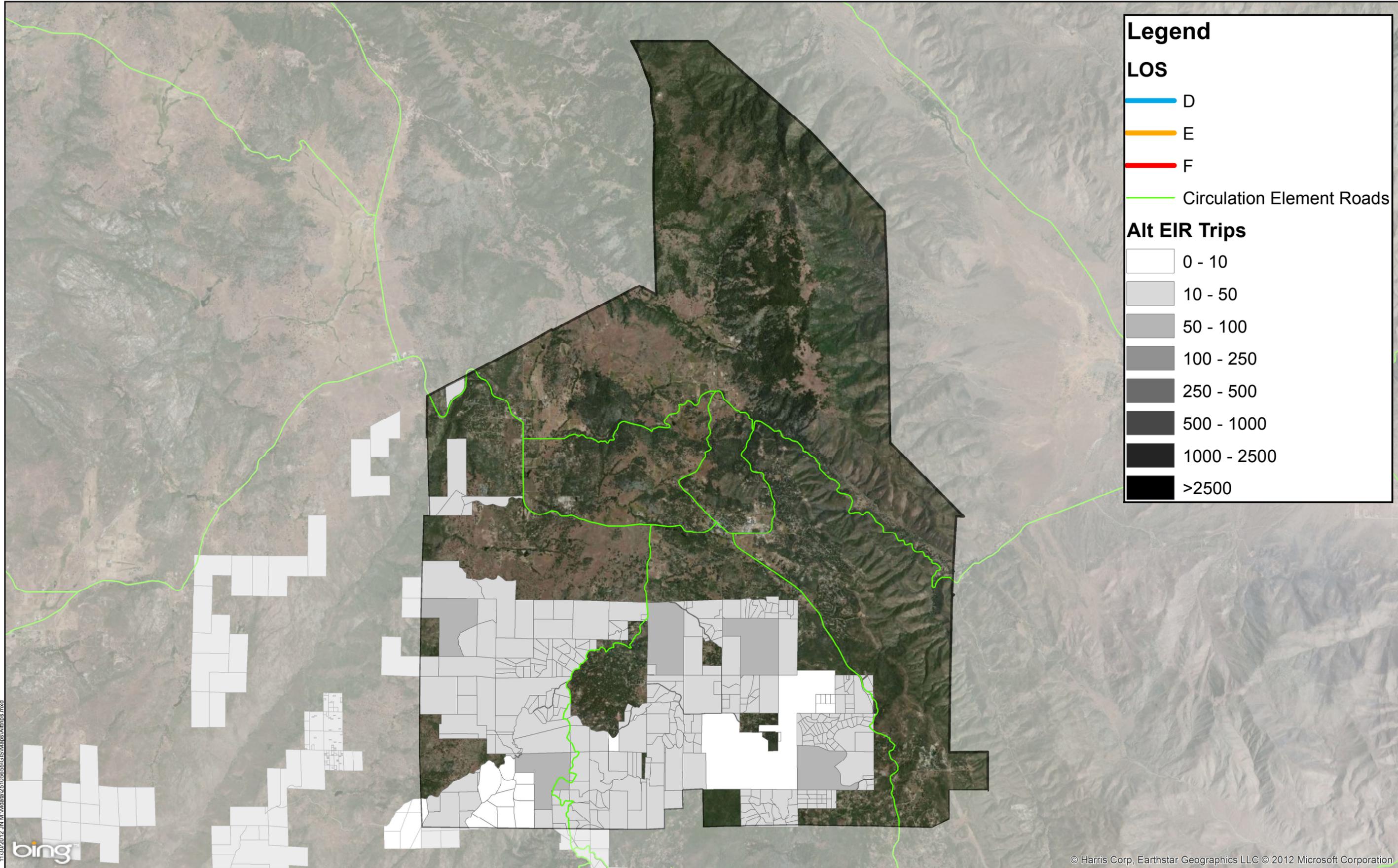
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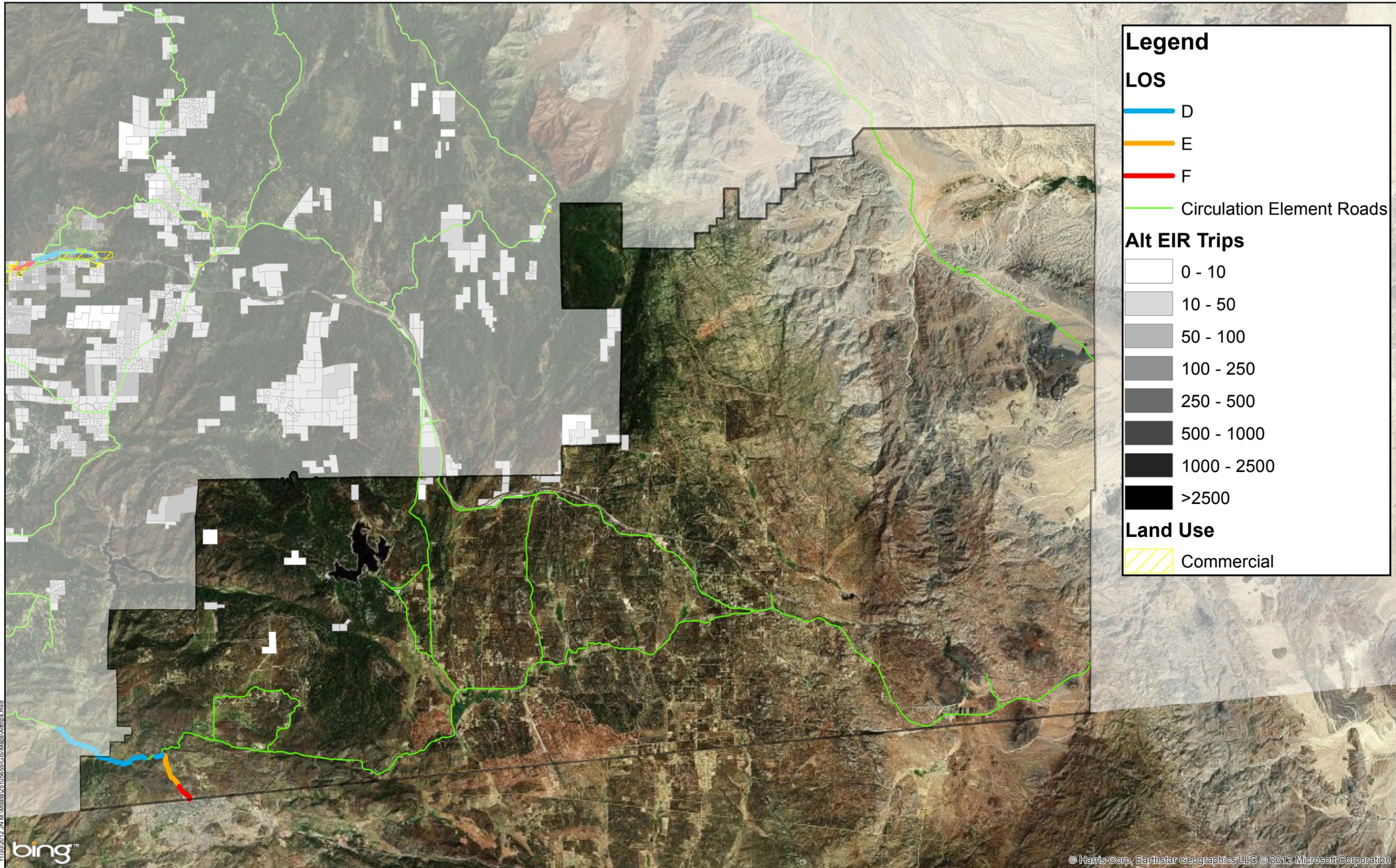
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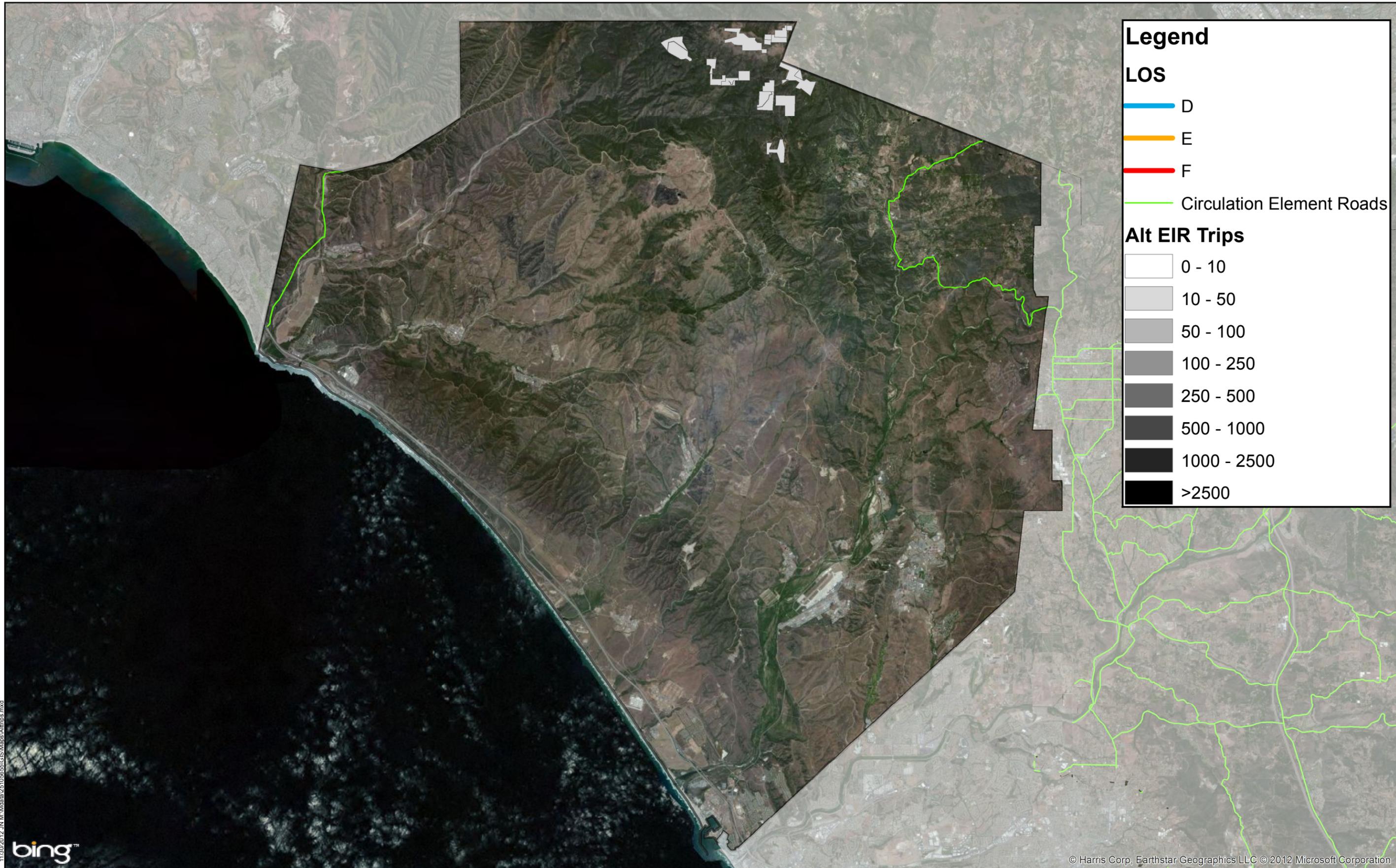
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Alt EIR Trips

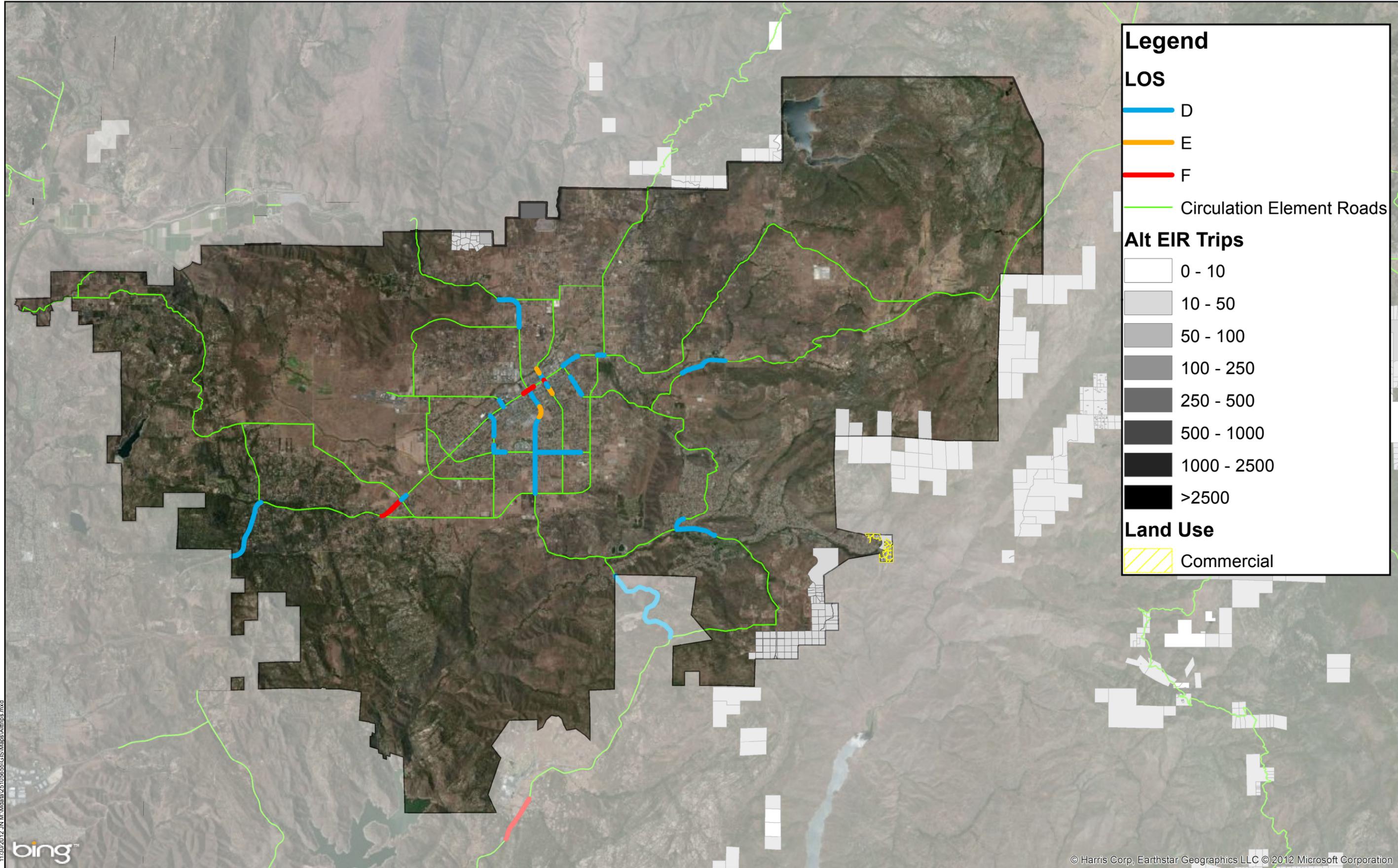
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Alt EIR Trips: Pendleton-De Luz



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Alt EIR Trips: Ramona

APPENDIX B

Buildout ADT Volume Sources

- **GPU EIR Volume IV Appendix E (July 5, 2011)**
- **City of San Diego Forecast Model Plots**

GPU EIR Volume IV Appendix E (July 5, 2011)

EIR Volume IV

Appendix E

Technical Memorandum

Fehr & Peers

This appendix consists of a memorandum that presents an evaluation of the "Recommended Project 2011" Mobility Element road network alternative for the County of San Diego's General Plan Update.

TECHNICAL MEMORANDUM

Date: July 5, 2011

To: Kim Howlett, ATKINS

From: Monique Chen, PE, Fehr & Peers
Phuong Nguyen, Fehr & Peers

Subject: County General Plan Update – Recommended Project 2011

SD10-0019.02

This memorandum presents an evaluation of the “Recommended Project 2011” for the County of San Diego’s General Plan Update. This latest alternative was based upon the Planning Commission Recommendation of 2010 (“Recommended Project 2010”, memo dated September 20, 2010) with minor land use changes directed by the Board of Supervisors in the Spring of 2011.

Due to the on-going difficulties with SANDAG’s ability to run the Series 10 Regional Transportation Model, this latest alternative was analyzed based upon manual adjustments to recent forecast data. The August 2010 SANDAG model output (Planning Commission “Recommended Project 2010”) was utilized as the base model and was subjected to the manual adjustments. For the purpose of this update, only Traffic Analysis Zones (TAZs) with an Average Daily Traffic (ADT) change of ± 100 or greater were included in the evaluation.

As shown in **Table 1** below, a total of 49 TAZs were identified and trips from these TAZs were manually distributed onto the roadway network. The County has recently approved an EIR for the Campus Park Project in Fallbrook which included a Traffic Impact Study (TIS) prepared by LOS Engineering, Inc. dated May 12, 2009. The TIS utilized a 30% internal capture rate given the mixed-use nature of the project. As per County staff approval, the 30% internal capture was also applied to those TAZs in the vicinity of the Campus Park project, including TAZs 110, 127, and 4631.

TABLE 1
Recommended Project 2011 ADT Changes by TAZ

CPA	TAZ	Change in ADT		
		Residential	Non-Residential	Total
Alpine	2361	(22)	(144)	(167)
Alpine	2215	(6)	200	193
Bonsall	172	(2)	(1,289)	(1,291)
Bonsall	159	(0)	(613)	(613)
Bonsall	156	254	0	254
Bonsall	245	296	0	296

TABLE 1
Recommended Project 2011 ADT Changes by TAZ

CPA	TAZ	Change in ADT		
		Residential	Non-Residential	Total
Borrego Springs	420	0	(286)	(286)
Borrego Springs	202	325	(189)	136
Borrego Springs	237	476	(288)	188
Borrego Springs	282	(37)	7,446	7,409
Central Mountain	4665	(128)	0	(128)
Fallbrook	110	(261)	25,593	25,332
Fallbrook	127	0	5,552	5,552
Fallbrook	18	117	0	117
Fallbrook	140	2	155	157
Fallbrook	4632	991	0	991
Fallbrook	4631	331	802	1,133
Fallbrook	35	4,026	277	4,304
Jamul	3615	(13)	323	311
Julian	1206	179	0	179
Julian	1071	180	1	180
Julian	694	244	0	244
Lakeside	2190	49	(282)	(234)
Lakeside	1784	(190)	16	(174)
Lakeside	1924	322	0	322
North County Metro	1142	(248)	0	(248)
North County Metro	970	0	115	115
North County Metro	590	2,262	0	2,262
North County Metro	551	1,138	0	1,138
North County Metro	591	652	0	652
North County Metro	1180	(23)	793	770
North County Metro	601	1,329	0	1,329
North County Metro	571	(900)	0	(900)
North Mountain	26	(333)	(0)	(333)
Pala - Pauma	104	(2)	111	110
Rainbow	17	0	141	141

TABLE 1
Recommended Project 2011 ADT Changes by TAZ

CPA	TAZ	Change in ADT		
		Residential	Non-Residential	Total
Rainbow	19	5	2,309	2,314
Rainbow	21	(0)	8,177	8,177
Ramona	1282	(1,070)	0	(1,070)
Ramona	1333	(178)	(2)	(179)
Ramona	1322	(4)	(105)	(108)
Ramona	1271	1,759	0	1,759
San Dieguito	1223	(227)	0	(227)
San Dieguito	1490	0	203	203
Spring Valley	3620	(396)	(0)	(396)
Valley Center	268	(3)	125	122
Valley Center	149	151	0	151
Valley Center	430	(94)	831	736
Valley Center	343	852	2,003	2,855

Source: Fehr & Peers; June 2011

Note: (XXX) indicates negative values.

The adjusted model output was then identified to evaluate the roadway operating conditions associated with the Recommended Project 2011 alternative.

The analysis below documents the trip generation, vehicle miles of travel (VMT), roadway lane miles, lane miles by LOS, and deficient facilities associated with the Recommended Project 2011. This memo also provides the rationale and basis for the various refinements made to the SANDAG Regional Transportation Model output to ensure both the validity and reasonableness of the resulting traffic volumes and Level of Service (LOS).

TRIP GENERATION

Trip generation quantifies the amount of trip making as a function of the type and magnitude of the assumed land uses associated with the Recommended Project 2011. Trip generation rates as applied to the various land use types under the Recommended Project 2011 were consistent with those utilized in the SANDAG Regional Transportation Model, with additional refinements by SANDAG and County Staff to reflect the more rural nature and lower densities of typical County land uses.

Table 2 displays forecast daily vehicle trip generation for the Recommended Project 2011 in the unincorporated portions of San Diego County. Trip generation under existing conditions and buildout of the Existing General Plan are also shown, along with the change in vehicle trips from the Recommended Project 2011 when compared with the previously analyzed General Plan Update alternatives.

**TABLE 2
 AVERAGE DAILY VEHICLE TRIP GENERATION**

CPA	Average Daily Vehicle Trips (ADT)								
	Existing	Existing GP	Recommended Project 2011	Change From Recommended Project 2011					
				Referral	Draft Land Use	Hybrid	Environmentally Superior	Cumulative Analysis	Recommended Project 2010
<i>Northwestern Communities</i>									
Bonsall	63,438	112,477	94,024	21,536	20,075	21,135	19,535	21,789	1,354
Fallbrook	286,243	412,923	498,155	(38,401)	(39,456)	(34,845)	(90,743)	(1,228)	(37,585)
North County Metro	203,177	308,971	384,427	12,553	(1,944)	(408)	(50,181)	46,301	(5,118)
Pala - Pauma	61,484	144,156	105,156	2,108	(1,859)	(809)	(3,463)	8,349	(110)
Pendleton - De Luz	153,761	228,679	156,586	(1,510)	(731)	(847)	(1,338)	(731)	0
Rainbow	10,128	38,961	34,379	14,637	(11,490)	(10,608)	(11,922)	14,637	(10,632)
San Dieguito	149,828	258,641	236,933	(2,627)	(3,941)	(4,087)	(2,847)	(2,627)	23
Valley Center	104,633	220,161	277,247	47,923	2,397	7,396	(26,782)	57,470	(3,864)
Northwestern Communities Subtotal	1,032,692	1,724,969	1,786,907	56,219	(36,949)	(23,073)	(167,741)	143,960	(55,932)
<i>Southwestern Communities</i>									
Alpine	214,643	311,826	317,841	43,261	27,847	29,377	13,218	121,619	(27)
County Islands	13,443	15,340	18,153	(2,311)	(68)	(74)	68	(291)	0
Crest - Dehesa	48,729	61,944	56,423	(477)	(480)	(457)	(966)	(457)	0
Jamul - Dulzura	56,987	144,616	101,595	1,280	(417)	(471)	(4,727)	1,280	0
Lakeside	436,719	581,552	587,900	(4,720)	(1,295)	(1,649)	(1,590)	(1,295)	85
Otay	7,496	229,736	351,726	13,171	15,407	15,088	17,257	17,257	0

TABLE 2
AVERAGE DAILY VEHICLE TRIP GENERATION

CPA	Average Daily Vehicle Trips (ADT)								
	Existing	Existing GP	Recommended Project 2011	Change From Recommended Project 2011					
				Referral	Draft Land Use	Hybrid	Environmentally Superior	Cumulative Analysis	Recommended Project 2010
Ramona	304,668	467,882	436,970	8,767	1,115	1,610	2,281	8,767	(401)
Spring Valley	336,273	412,392	411,687	4,299	6,973	6,662	9,723	9,723	396
Sweetwater	59,150	74,793	68,136	1,671	411	371	915	1,671	0
Valle De Oro	383,205	404,852	402,079	4,203	6,718	6,431	9,361	9,361	0
Southwestern Communities Subtotal	1,861,313	2,704,933	2,752,510	69,144	56,211	56,888	45,540	167,635	53
<i>Eastern Communities</i>									
Central Mountain	36,942	49,814	43,362	41	103	100	(152)	103	128
Desert	72,198	285,884	200,602	5,054	1,071	3,639	(8,529)	40,908	(7,447)
Julian	30,945	56,872	43,423	(686)	(1,537)	(1,282)	(1,507)	(686)	(603)
Mountain Empire	77,193	297,344	192,976	43,029	(7,061)	(7,178)	(20,831)	56,198	0
North Mountain	31,568	62,470	40,547	4,277	324	736	81	5,658	333
Eastern Communities Subtotal	248,846	752,384	520,910	51,715	(7,100)	(3,985)	(30,938)	102,181	(7,589)
Total	3,142,851	5,182,286	5,060,327	177,078	12,162	29,830	(153,139)	413,776	(63,468)

Source: Fehr & Peers; June 2011

Note: (XXX) indicates negative values.

As shown in the table, the Recommended Project 2011 would generate a total of 5,060,327 daily vehicle trips with 1,786,907 in the Northwestern Communities, 2,752,510 in the Southwestern Communities, and 520,910 in the Eastern Communities. The Recommended Project 2011 would result in approximately 122,000 fewer daily vehicle trips (-2.4%) than the Existing General Plan, and approximately 63,500 more daily vehicle trips (+1.3%) than the Planning Commission Recommended Project 2010. With consideration of the other previously analyzed General Plan Update alternatives, the Environmentally Superior alternative would generate fewer daily vehicle trips (approximately 153,100) than the Recommended Project 2011.

VEHICLE MILES OF TRAVEL (VMT)

Vehicle Miles of Travel (VMT) is a measurement of the total miles traveled by all motor vehicles in the area for a specified time period. VMT is an indicator of the overall magnitude of travel associated with each of the land use and roadway network alternatives. In general, a mix of land uses within closer proximity and requiring less driving distance for interaction can result in a reduction in VMT. Typically more dispersed and segregated (not mixed) land uses result in greater VMT.

Table 3 displays daily VMT for existing conditions, the existing General Plan and the Recommended Project 2011, as well as the change in daily VMT between the Recommended Project 2011 and the previously analyzed General Plan Update alternatives. As shown in the table, the Recommended Project 2011 would result in approximately 3.8 million less daily VMT (about 13.5%) than the Existing General Plan and approximately 155,000 less daily VMT (about 0.6%) than the Planning Commission Recommended Project 2010. All of the previously analyzed alternatives would result in more VMT than the Recommended Project 2011, except for the Environmentally Superior alternative.

LANE MILES BY FACILITY TYPE

Table 4 displays lane miles by facility type (State highways, ME roads and local public roads), as well as by subregion and CPA for the Recommended Project 2011. Note that the Recommended Project 2011 includes the following roadway network changes from the Planning Commission Recommended Project 2010:

- Deletion of New Road 3A
- Upgrade of a portion of Old Highway 395 from the I-15 interchange to West Lilac Road from a two-lane Community Collector (2.1D) to a four-lane Boulevard (4.2B)
- Upgrade of a portion of West Lilac Road from New Road 3 to Old Highway 395 from a two-lane Light Collector with Reduced Shoulder (2.2F) to a Light collector with Intermittent Turn Lane (2.2C)

**TABLE 3
 DAILY VEHICLE MILES OF TRAVEL (VMT)**

CPA	Daily Vehicle Miles of Travel (VMT)								
	Existing	Existing GP	Recommended Project 2011	Change From Recommended Project 2011					
				Referral	Draft Land Use	Hybrid	Environmentally Superior	Cumulative Analysis	Recommended Project 2010
<i>Northwestern Communities</i>									
Bonsall	1,179,857	2,198,576	1,707,381	380,409	396,822	383,790	325,306	441,255	365,406
Fallbrook	1,356,481	2,468,641	2,581,691	(208,193)	(204,481)	(211,979)	(283,373)	(143,653)	(209,045)
North County Metro	1,645,889	3,074,185	2,822,841	(6,907)	(14,275)	(21,866)	(105,249)	86,507	(29,115)
Pala - Pauma	270,007	623,253	417,104	3,626	(5,485)	(3,209)	(19,390)	6,477	(6,659)
Pendleton - De Luz	2,734,946	3,938,832	3,819,540	(20,439)	(17,831)	(19,026)	(23,936)	(17,831)	(20,192)
Rainbow	422,169	806,804	569,255	242,363	225,957	226,516	224,874	243,318	226,387
San Dieguito	503,845	819,883	734,513	(12,821)	(12,217)	(13,370)	(13,260)	(12,217)	(11,961)
Valley Center	402,685	834,261	755,800	58,683	6,534	13,672	(76,203)	82,458	(12,322)
Northwestern Communities Subtotal	8,515,879	14,764,435	13,408,125	436,721	375,024	354,528	28,769	686,314	302,499
<i>Southwestern Communities</i>									
Alpine	745,350	1,144,080	1,012,838	137,856	126,145	128,751	112,263	224,009	(101,644)
County Islands	320,638	385,062	391,693	(2,970)	(1,467)	(1,583)	88	88	(399)
Crest - Dehesa	151,969	218,408	206,753	(1,748)	(2,958)	(2,605)	(5,250)	3,643	(20,165)
Jamul - Dulzura	315,670	739,375	514,230	70,374	(2,111)	(1,687)	(21,983)	70,374	35,109
Lakeside	1,483,082	2,127,527	2,195,690	(12,643)	(4,837)	(5,733)	(14,831)	1,715	(71,093)
Otay	24,779	366,917	443,543	17,496	19,429	19,085	20,381	20,381	(1,462)

TABLE 3
DAILY VEHICLE MILES OF TRAVEL (VMT)

CPA	Daily Vehicle Miles of Travel (VMT)								
	Existing	Existing GP	Recommended Project 2011	Change From Recommended Project 2011					
				Referral	Draft Land Use	Hybrid	Environmentally Superior	Cumulative Analysis	Recommended Project 2010
Ramona	685,606	1,118,342	840,007	28,309	2,143	10,000	(11,105)	32,129	1,580
Spring Valley	870,515	1,194,885	1,153,630	14,910	19,540	19,151	27,048	27,048	13,071
Sweetwater	571,218	881,328	859,649	928	5,185	4,867	10,716	10,716	236
Valle De Oro	568,211	707,773	628,472	8,874	10,501	9,776	9,706	10,501	6,466
Southwestern Communities Subtotal	5,737,038	8,883,697	8,246,504	261,387	171,571	180,023	127,034	400,605	(138,300)
<i>Eastern Communities</i>									
Central Mountain	559,722	229,028	851,897	167	2,024	5,707	(23,865)	40,759	(11,906)
Desert	161,005	686,572	307,219	16,353	(2,541)	5,573	(22,516)	28,552	(529)
Julian	66,945	1,301,424	89,446	5,757	(3,166)	(260)	(7,271)	14,559	10,122
Mountain Empire	623,737	1,655,818	1,242,533	63,152	(45,464)	(45,412)	(100,752)	119,568	(26,447)
North Mountain	257,823	857,490	399,102	42,526	(2,620)	7,244	(17,112)	54,755	19,752
Eastern Communities Subtotal	1,669,232	4,730,332	2,890,197	127,955	(51,767)	(27,148)	(171,516)	258,193	(9,008)
Total	15,922,149	28,378,464	24,544,826	826,063	494,828	507,403	(15,713)	1,345,112	155,191

Source: Fehr & Peers; July 2011

Note: (XXX) indicates negative values.

**TABLE 4
 ROADWAY LANE MILES BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Lane Miles			
	State Highway	ME Roads	Local Public Roads	Total
<i>Northwestern Communities</i>				
Bonsall	17.2	85.1	21.6	123.9
Fallbrook	26.1	151.5	50.0	227.6
North County Metro	15.2	200.8	34.7	250.7
Pala - Pauma	60.0	46.1	3.4	109.5
Pendleton - De Luz	-	57.7	2.4	60.1
Rainbow	-	18.7	-	18.7
San Dieguito	-	105.7	54.2	159.9
Valley Center	-	177.6	36.4	214.0
Northwestern Communities Subtotal	118.5	843.2	202.7	1,164.4
<i>Southwestern Communities</i>				
Alpine	-	107.7	32.5	140.2
County Islands	-	3.9	-	3.9
Crest - Dehesa	-	63.0	9.1	72.1
Jamul - Dulzura	54.7	99.5	59.6	213.8
Lakeside	31.5	180.5	52.6	264.6
Otay	-	61.1	6.5	67.6
Ramona	64.6	149.8	51.8	266.2
Spring Valley	-	62.4	31.8	94.2
Sweetwater	-	25.0	8.1	33.1
Valle De Oro	10.8	98.7	34.0	143.5
Southwestern Communities Subtotal	161.6	851.6	286.0	1299.2
<i>Eastern Communities</i>				
Central Mountain	42.6	146.2	66.2	255.0
Desert	60.3	266.2	8.1	334.6
Julian	35.0	24.5	1.4	60.9
Mountain Empire	70.7	144.2	76.4	291.3
North Mountain	123.9	120.1	61.7	305.7
Eastern Communities Subtotal	332.5	701.2	213.8	1,247.5
Total	612.6	2,396.0	702.5	3,711.1

Source: Fehr & Peers; June 2011

As shown in Table 4, the Recommended Project 2011 includes 612.6 lane miles of State highways, 2,396.0 lane miles of County ME roads, and 702.5 lane miles of local public roads, for a total of 3,711.1 roadway lane miles in the unincorporated County. Under the Recommended Project 2011, County ME roadway lane miles are fairly evenly distributed amongst the three subregions (35.2% in the Northwestern Communities, 35.5% in the Southwestern Communities, and 29.3% in the Eastern Communities). A little over half (54.3%) of the State highway lane miles are located in the Eastern Communities. Local public road lane miles are also fairly evenly distributed amongst the three subregions (28.9% in the Northwestern Communities, 40.7% in the Southwestern Communities, and 30.4% in the Eastern Communities).

REFINEMENT AND APPLICATION OF MODEL OUTPUT

Output from the SANDAG traffic model included forecast traffic volumes (ADTs) and plots displaying roadway segment LOS for the Recommended Project 2011. In addition to manually adjusting the model to account for the land use changes associated with the Recommended Project 2011, additional review of the model output was undertaken to ensure both the validity and reasonableness of the resulting traffic volumes and LOS.

Based upon detailed review of the model output, in a number of instances the LOS as reported by the model was adjusted to account for the following:

1. Variability in traffic forecasts associated with centroid loadings – The coding and location of centroid connectors (connect the TAZ to the roadway network) can impact the loading of traffic onto the adjacent roadway segments. TAZ sizes can vary with large TAZs more common in less developed, more rural areas with fewer roadway facilities. The traffic model in these situations can result in excess volume loadings specifically on the immediately adjacent links. Forecast traffic volumes and associated deficiencies were reviewed to ensure a balanced and reasonable loading pattern from the TAZs onto the adjacent roadway network.
2. Variability in traffic forecasts associated with local streets – The SANDAG regional model roadway network does not reflect all local streets, which could result in potential over-forecasting on adjacent Mobility Element roads. Forecast traffic volumes and associated deficiencies were reviewed to ensure reasonable trip distribution and assignment to the modeled roadway network.
3. Overall accuracy of forecast traffic volumes – Traffic forecasts have an associated level of accuracy, which is typically and conservatively assumed as plus or minus ten percent (10%) for roadway segments. Identified deficiencies from the traffic model were examined to ensure reasonability within the expected accuracy of the model.

Conduct of the model adjustments and the aforementioned reasonability checks and adjustments resulted in a refined list of roadway segment deficiencies associated with the Recommended Project 2011. **Table 5** displays the specific roadway segment deficiency adjustments, by CPA, that resulted in deletion of the subject segment as a deficiency, along with the rationale. Note that the number indicated in the “Adjustment Rationale” column represents one or more of the three situations referenced above.

**TABLE 5
 ADDITIONAL MODEL OUTPUT MANUAL ADJUSTMENTS
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Adjustment Rationale
<i>Northwestern Communities</i>				
Bonsall	ME Road	Old Hwy 395	Dublin (W) Rd to West Lilac Rd	3
Fallbrook	ME Road	Pankey Road	Pala Rd to Shearer Crossing	1 & 3
		Stage Coach Lane	Alvarado St to Fallbrook St	2 & 3
		Mission Road	Clemmens Ln to Ohearn Rd	2 & 3
Fallbrook	ME Road	Mission Road	Ohearn Rd to Laurine Ln	2 & 3
		Mission Road	De Luz Rd to Vine St	2 & 3
		Mission Road	Vine St to Brandon Rd	3
		Mission Road	Stage Coach Ln to Davis Dr	3 & 2
		Alvarado Street	Main Ave to West of Brandon Rd	3
		Fallbrook Street	Old Stage Rd to Mandarin Dr	2
		Old Hwy 395	Stewart Canyon Rd to Pala Mesa Dr	3
North County Metro	State Hwy	SR-78	Smilax Rd to Sycamore Ave	1 & 3
	ME Road	Deer Springs Road	Mesa Rock Rd to I-15 NB Ramps	3
		Bear Valley Parkway	Eldorado Dr to San Pasqual Valley Rd	3
Pala - Pauma	-	-	-	-
Pendleton - De Luz	-	-	-	-
Rainbow	-	-	-	-
San Dieguito	ME Road	Paseo Delicias	Via De La Valle to La Granada	3
		El Camino Del Norte	Via de Fortuna to Via Roswitha	2
Valley Center	ME Road	Valley Center Road	Lilac Rd to Canyon Rd	3
Valley Center	ME Road	Valley Center Road	Canyon Rd to New Southern Pass	3
		Valley Center Road	New Southern Pass to Miller Rd	3
		Valley Center Road	Turtle Rock to Rock Hill Ranch	3 & 2
<i>Southwestern Communities</i>				
Alpine	ME Road	Alpine Boulevard	Arnold Wy to Peutz Valley Rd	1
		Alpine Boulevard	Tavern Rd to Boulders Rd	3
		South Grade Road	Eltinge Dr to Olive View Rd	3

**TABLE 5
 ADDITIONAL MODEL OUTPUT MANUAL ADJUSTMENTS
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Adjustment Rationale
Alpine	ME Road	Tavern Road	I-8 WB Ramps to Alpine Blvd	3
County Islands	-	-	-	-
Crest - Dehesa	-	-	-	-
Jamul - Dulzura	State Hwy	Campo Road/SR-94	Fair Acres Ln to Steele Canyon Rd	3
Lakeside	ME Road	Lake Jennings Park Road	I-8 WB Off-Ramp to I-8 EB Off-Ramp	3
		Julian Avenue	Los Coches Rd to Cypress Ln	2 & 3
		Mapleview Street	SR-67 SB Off Ramp to Maine Ave/SR-67 On Ramp	2
		Greenfield Drive	Graves Ave to Ballantyne St	2 & 3
		Graves Avenue	Graves Ave to Bradley Ave	2 & 3
Otay	ME Road	Otay Mesa Road	Enrico Firmi to west of Alta Road	2 & 3
		Enrico Firmi	SR-11 to Otay Mesa Rd	2
		Sempre Viva Road	SR-11 EB Ramps to Loop Rd	3
Ramona	State Hwy	SR-67	East of Ranchro de Oro Dr to Mussey Grade Rd	1 & 3
	ME Road	San Vicente Road	H St to 11 th St	1 & 3
		San Vicente Road	Warnock Dr to Wildcat Canyon Rd	3
		San Vicente Road	Wildcat Canyon Rd to west of Serra Wy	3
		Pine Street	Ash St to Cedar St	3
Wildcat Canyon Road	San Vicente Oak Rd to Harry Hertzberg Wy	3		
Spring Valley	ME Road	Jamacha Boulevard	Sweetwater Rd to Kempton St	2 & 3
		Paradise Valley Road	Worthington St to Elkelton Blvd	3
Spring Valley	ME Road	Kenwood Drive	Bancroft Dr to James Circle	3
		Kenwood Drive	Andreen St to SR-94 EB Ramps	3
Sweetwater	ME Road	Sweetwater Road	Plaza Bonita Center Wy to Mesa Vista Wy	3
		Sweetwater Road	Mesa Vista Wy to Willow St	3
		Sweetwater Road	Willow St to Orchard Hill Rd	3
Valle De Oro	ME Road	Conrad Drive	Sierra Madre Rd to Campo Rd	2 & 3
		Kenwood Drive	Campo Rd to SR-94 WB Ramps	2 & 3

**TABLE 5
 ADDITIONAL MODEL OUTPUT MANUAL ADJUSTMENTS
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Adjustment Rationale
Valle De Oro	ME Road	Avocado Boulevard	SR-94 WB Ramps to Madrid Wy	2 & 3
		North Barcelona Street	Campo Rd to Delores St	2
<i>Eastern Communities</i>				
Central Mountain	-	-	-	-
Desert	ME Road	Palm Canyon Drive	Ocotillo Cir to Borrego Springs Rd	1
		Christmas Circle	Palm Canyon Dr to Sunset Rd	2 & 3
		Christmas Circle	Sunset Rd to Borrego Springs Rd	2
		Borrego Spring Road	Diamond Bar Rd to Tilting T Dr	2 & 3
		Palm Canyon Drive	Christmas Circle to Stirrup Rd	2
Julian	-	-	-	-
Mountain Empire	State Hwy	Tecate Road/SR-188	Campo Rd to Airport Rd	1 & 3
	ME Road	Ribbonwood Road	Manzanita Dulce Rd to I-8 EB Ramps	1
		Carrizo Gorge Road	Carrizo Gorge Rd to I-8 EB Ramps	1
North Mountain	-	-	-	-

Source: Fehr & Peers; June 2011

As noted, the segments displayed in Table 5 were deleted from the list of roadway segments considered to be operating at substandard LOS E/F.

LANE MILES BY LOS

Table 6 displays roadway network performance for the Recommended Project 2011. Roadway lane miles by LOS category are reported by facility type (State highways and ME roads), as well as by subregion and CPA. This analysis incorporates the model output refinements and LOS adjustments outlined in the previous sections. Lane miles operating at LOS E and F were identified as deficiencies and subject to mitigation.

**TABLE 6
 ROADWAY LANE MILES BY LEVEL OF SERVICE
 RECOMMENDED PROJECT 2011**

CPA	Lane Miles								
	LOS A-D			LOS E			LOS F		
	State Hwy	ME Roads	Total	State Hwy	ME Roads	Total	State Hwy	ME Roads	Total
<i>Northwestern Communities</i>									
Bonsall	4.8	85.1	89.9	2.7	-	2.7	9.7	-	9.7
Fallbrook	25.5	132.2	157.7	0.6	6.2	6.8	-	13.1	13.1
North County Metro	15.2	199.4	214.6	-	-	-	-	1.4	1.4
Pala - Pauma	55.8	46.1	101.9	-	-	-	4.2	-	4.2
Pendleton - De Luz	-	57.7	57.7	-	-	-	-	-	-
Rainbow	-	15.5	15.5	-	3.1	3.1	-	0.1	0.1
San Dieguito	-	71.4	71.4	-	10.1	10.1	-	24.2	24.2
Valley Center	-	161.0	161.0	-	8.7	8.7	-	7.9	7.9
Northwestern Communities Subtotal	101.3	768.4	869.7	3.3	28.1	31.4	13.9	46.7	60.6
<i>Southwestern Communities</i>									
Alpine	-	104.0	104.0	-	0.3	0.3	-	3.4	3.4
County Islands	-	3.6	3.6	-	-	-	-	0.3	0.3
Crest - Dehesa	-	63.0	63.0	-	-	-	-	-	-
Jamul - Dulzura	54.7	96.4	151.1	-	3.1	3.1	-	-	-
Lakeside	24.7	162.5	187.2	5.6	4.5	10.1	1.2	13.5	14.7
Otay	-	61.1	61.1	-	-	-	-	-	-
Ramona	63.7	146.8	210.5	0.9	0.2	1.1	-	2.8	2.8
Spring Valley	-	58.9	58.9	-	2.2	2.2	-	1.3	1.3
Sweetwater	-	24.3	24.3	-	0.7	0.7	-	-	-
Valle De Oro	10.8	90.6	101.4	-	3.2	3.2	-	4.9	4.9
Southwestern Communities Subtotal	153.9	811.2	965.1	6.5	14.2	20.7	1.2	26.2	27.4

**TABLE 6
 ROADWAY LANE MILES BY LEVEL OF SERVICE
 RECOMMENDED PROJECT 2011**

CPA	Lane Miles								
	LOS A-D			LOS E			LOS F		
	State Hwy	ME Roads	Total	State Hwy	ME Roads	Total	State Hwy	ME Roads	Total
<i>Eastern Communities</i>									
Central Mountain	42.6	146.2	188.8	-	-	-	-	-	-
Desert	60.3	266.2	326.5	-	-	-	-	-	-
Julian	35.0	24.5	59.5	-	-	-	-	-	-
Mountain Empire	70.7	144.2	214.9	-	-	-	-	-	-
North Mountain	123.9	120.1	244.0	-	-	-	-	-	-
Eastern Communities Subtotal	332.5	701.2	1,033.7	-	-	-	-	-	-
Total	587.7	2,280.8	2,868.5	9.8	42.3	52.1	15.1	72.9	88.0

Source: Fehr & Peers; June 2011

As shown in Table 6, a total of 52.1 lane miles of facilities (9.8 lane miles of State highways and 42.3 lane miles of ME roads) would operate at LOS E. A total of 88.0 lane miles of facilities (15.1 lane miles of State highways and 72.9 lane miles of ME roads) would operate at LOS F under buildout of Recommended Project 2011. The Northwestern Communities would have the most deficient roadway lane miles at 92.0; the Southwestern Communities are projected to have 48.1 lane miles of deficient facilities (approximately half of the Northwestern Communities), with the Eastern Communities having no deficient roadways.

Table 7 summarizes the projected total number of deficient roadway segments and corresponding deficient roadway lane miles throughout the unincorporated County under buildout of the Recommended Project 2011.

**TABLE 7
 SUMMARY OF DEFICIENT ROADWAYS
 RECOMMENDED PROJECT 2011**

Type	State Highways	ME Roads	Total
Deficient Segments (#)	11	69	80
Deficient Lane Miles	24.9	115.2	140.1

Source: Fehr & Peers; June 2011

DEFICIENT FACILITIES

Table 8 lists the deficient roadway segments (LOS E and F) in the unincorporated portion of the County of San Diego under the Recommended Project 2011. This table also includes forecast ADT, LOS, roadway classification type, and mitigated classification. The roadway classification represents the General Plan Update classification as indicated for the Recommended Project 2011, and the mitigated roadway classification represents the classification which would be required to mitigate the identified deficiency.

**TABLE 8
 DEFICIENT FACILITIES (LOS E/F) BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Classification	ADT	LOS	Mitigated Classification
<i>Northwestern Communities</i>							
Bonsall	State Hwy	Mission Road/SR-76	Oceanside/County Boundary to Vista Wy	4-Ln State Highway	55,100	F	6-Ln State Highway
		Mission Road/SR-76	Vista Wy to Holly Ln	4-Ln State Highway	44,400	E	6-Ln State Highway
		Mission Road/SR-76	Holly Ln to North River Rd	4-Ln State Highway	44,400	E	6-Ln State Highway
		Mission Road/SR-76	North River Rd to Via Montellano	4-Ln State Highway	54,300	F	6-Ln State Highway
		Mission Road/SR-76	Via Montellano to Mission Rd	4-Ln State Highway	54,400	F	6-Ln State Highway
Fallbrook	State Hwy	Pala Road/SR-76	Old Hwy 395 to I-15 SB Ramps	4-Ln State Highway	48,000	E	6-Ln State Highway
	ME Road	De Luz Road	Dougherty St to Mission Rd	2.2C	14,900	E	2.1A
		Mission Road	Live Oak Park Rd to Old Hwy 395	4.2B	34,000	F	6.2
		Mission Road	Old Hwy 395 to I-15 SB Ramps	4.2B	41,200	F	6.2
		Old Hwy 395	Rainbow CPA Boundary to Mission Rd	2.1D	18,900	E	4.2B
		Old Hwy 395	Mission Rd to Reche Rd	2.1A	22,400	F	4.2B
		Old Hwy 395	Reche Rd to Stewart Canyon Rd	2.1A	28,500	F	4.1B
		Old Hwy 395	Steward Canyon Rd to Pala Mesa Dr	2.1A	22,100	F	4.2A
		Old Hwy 395	Pala Rd to Dublin (E) Rd	2.1D	14,900	E	4.2B
Old Hwy 395	Dublin (E) Rd to Dublin (W) Rd	2.1D	16,700	E	4.2B		
North County Metro	ME Road	Deer Springs Road	I-15 NB Ramps to N Centre City Pkwy	4.1B	45,100	F	6.2
		Mountain Meadows Road / Mirar De Valle	North Broadway to Alps Ln	2.1D	20,200	F	4.2B

**TABLE 8
 DEFICIENT FACILITIES (LOS E/F) BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Classification	ADT	LOS	Mitigated Classification
Pala - Pauma	State Hwy	Pala Road/SR-76	Pala Del Norte Rd to 6 th St	2-Ln State Highway	26,300	F	4-Ln State Highway
Rainbow	ME Road	Rainbow Valley Boulevard	I-15 NB Ramps to Old Hwy 395	2.2E	22,400	F	4.2B
		Old Highway 395	5 th St to Rainbow Valley Blvd	2.1D	17,400	E	4.2B
		Old Highway 395	Rainbow Valley Blvd to Rainbow/Fallbrook CPA Boundary	2.1D	18,100	E	4.2B
San Dieguito	ME Road	Del Dios Highway	Via Rancho Pkwy to El Camino Del Norte	2.1D	29,000	F	4.1B
		Paseo Delicias	El Camino Del Norte to El Montevideo	2.2A	24,300	F	4.2B
		Paseo Delicias	El Montevideo to Via De La Valle	2.2A	23,100	F	4.2B
		Rancho Santa Fe Road	City of Encinitas/San Dieguito CPA Boundary to El Mirlo	2.2F	24,400	F	4.2B
		La Bajada	El Mirlo to Los Morros	2.2F	24,400	F	4.2B
		La Granada	Los Morros to Rambla De Las Flores	2.2F	19,000	F	4.2B
		La Granada	Rambia de las Flores to Avenida De Acacias	2.2F	14,900	E	4.2B
		La Granada	Avenida De Acacias to Paseo Delicias	2.2F	16,800	F	4.2B
		Linea Del Cielo	El Camino Real to Rambla De Las Flores	2.2F	11,000	E	2.2D
		Via De La Valle	El Camino Real to Las Planideras	2.1B	25,300	F	4.2A
		Via De La Valle	Las Planideras to Calzada Del Bosque	2.1E	24,800	F	4.2A
		Via De La Valle	Calzada Del Bosque to Via de Santa Fe	2.1E	25,200	F	4.2A
		Via De La Valle	Via de Santa Fe to Paseo Delicias	2.1E	16,300	E	4.2B

**TABLE 8
 DEFICIENT FACILITIES (LOS E/F) BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Classification	ADT	LOS	Mitigated Classification
San Dieguito	ME Road	El Camino Del Norte	Aliso Canyon Rd to Del Dios Hwy	2.2F	13,700	E	2.1A
		El Apajo	Via De La Valle to Via De Santa Fe	2.1A	17,200	E	4.2B
		San Dieguito Road	El Apajo to Circa Oriente	2.1A	17,600	E	4.2B
Valley Center	ME Road	Mountain Meadows Road/ Mirar De Valle Road	Alps Ln to Burnt Mountain Rd	2.1D	21,800	F	4.2B
		Mountain Meadows Road/ Mirar De Valle Road	Burnt Mountain to Red Ironbark Dr	2.1D	20,500	F	4.2B
		Mountain Meadows Road/ Mirar De Valle Road	Red Ironbark Dr to Cypress Ridge	2.1D	28,000	F	4.2A
		Lilac Road	Cypress Ridge to Valley Center Rd	4.2B	33,900	F	6.2
		Valley Center Road	Miller Rd to Indian Creek Rd	4.2A	33,000	F	4.1A
		Wood Valley Road	Oakmont Rd to Augusta Dr	2.2C	17,900	E	4.2B
		Wood Valley Road	Augusta Dr to Karibu Ln	2.2C	14,600	E	2.1A
		New Road 19	Lilac Rd to Mirar de Valle	4.2B	30,000	E	4.1B
Southwestern Communities							
Alpine	ME Road	Alpine Boulevard	Boulders Rd to Alpine Special Treatment Center	2.2A	20,300	F	4.2B
		Alpine Boulevard	Alpine Special Treatment Center to W. Victoria Dr	2.2A	15,200	E	4.2B
		Alpine Boulevard	W. Victoria Dr to Louis Dr	2.2A	20,000	F	4.2B
		Willows Road	Alpine Blvd to Otto Ave	2.2E	20,400	F	4.2B
		Willows Road	Otto Ave to Viejas Grade Rd	2.2E	27,200	F	4.1B

**TABLE 8
 DEFICIENT FACILITIES (LOS E/F) BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Classification	ADT	LOS	Mitigated Classification
County Island	ME Road	Pomerado Road	I-15 NB Ramps to Willow Creek Rd	4.1A	35,400	F	6.2
Jamul - Dulzura	ME Road	Lyons Valley Road	Campo Rd to Skyline Truck Trail	2.2B	18,200	E	4.2B
Lakeside	State Hwy	SR-67	Poway/County Boundary to Scripps Poway	4-Ln State Highway	35,700	F	6-Ln State Highway
		SR-67	Scripps Poway Pkwy To Sycamore Park	4-Ln State Highway	46,200	E	6-Ln State Highway
		SR-67	Johnson Lake Rd to Posthill Rd	4-Ln State Highway	46,600	E	6-Ln State Highway
	ME Road	Maine Avenue	Mapleview St to Lakeshore Dr	2.2E	16,200	F	4.2B
		Maine Avenue	Lakeshore Dr to Parkside St	2.2E	17,200	F	4.2B
		Maine Avenue	Parkside St to Woodside Ave	2.2E	15,000	E	4.2B
		Lake Jennings Park Road	I-8 Business Route to I-8 WB Off-Ramp	4.1B	37,300	F	6.2
		Los Coches Road	Woodside Ave to Julian Ave	2.1D	18,000	E	4.2B
		Los Coches Road	Julian Ave to I-8 Business Route	2.1D	17,900	E	4.2B
		Mapleview Street	Maine Ave to Ashwood St	4.1A	48,900	F	6.2
Woodside Avenue	SR-67 NB Off-Ramp to Riverford Rd	4.2A	30,200	F	4.1A		
Wildcat Canyon Road	Willow Rd to Lakeside/Ramona CPA Boundary	2.1D	28,600	F	4.1B		
Ramona	State Hwy	Main Street/SR-78	9th St to 11th St	4-Ln State Highway	29,300	E	6-Ln State Highway
	ME Road	7th Street	Elm St to A St	2.2E	12,900	E	2.1D
		7th Street	Main St to D St	2.2E	14,500	F	2.1D

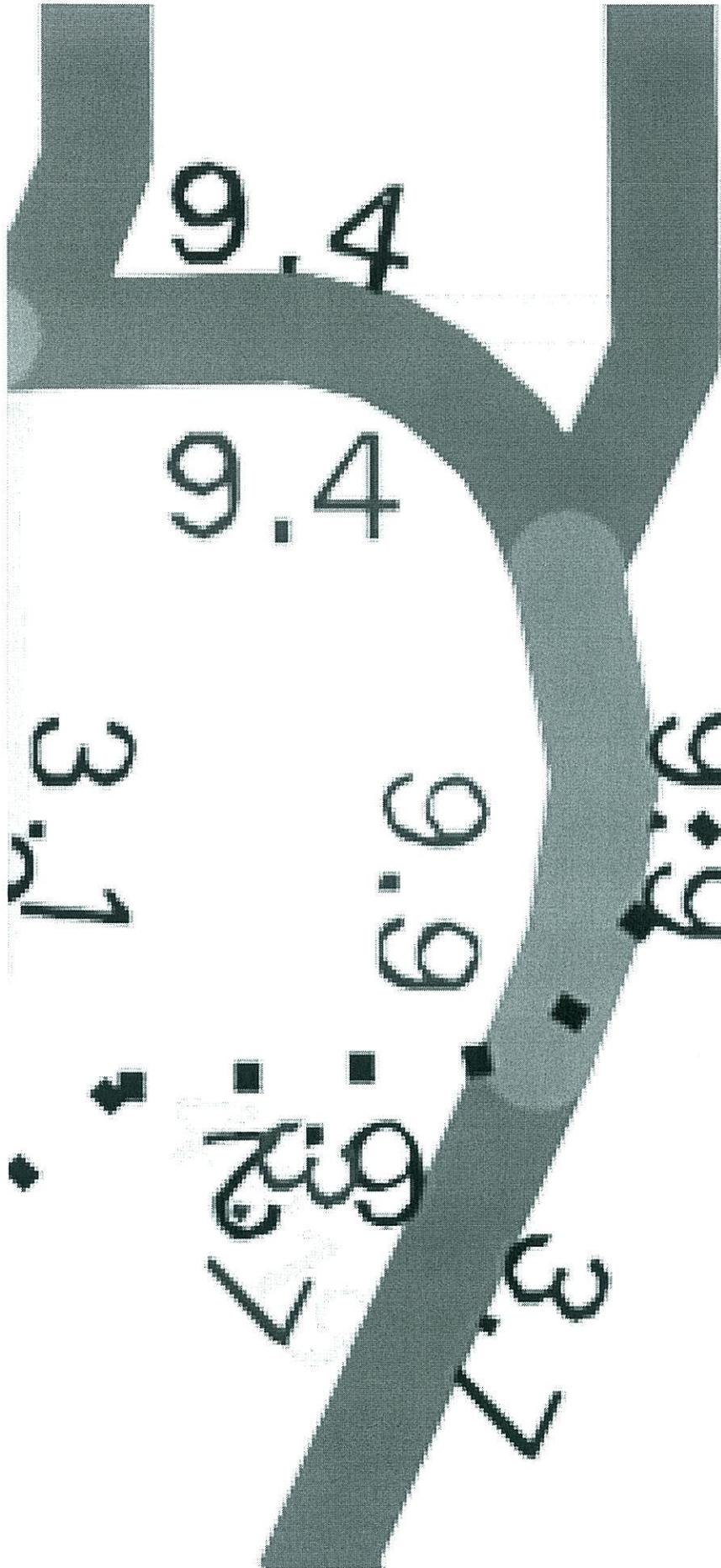
**TABLE 8
 DEFICIENT FACILITIES (LOS E/F) BY SUBREGION AND CPA
 RECOMMENDED PROJECT 2011**

CPA	Facility Type	Roadway	Segment Limits	Classification	ADT	LOS	Mitigated Classification
Ramona	ME Road	Wildcat Canyon Road	Harry Hertzberg Way to Lakeside/Barona CPA Boundary	2.1D	35,100	F	6.2
Spring Valley	ME Road	Paradise Valley Road	Elkelton Blvd to Sweetwater Rd	4.1B	35,000	F	6.2
		Jamacha Road	SR-125 SB Ramps to SR-125 NB Ramps	4.1B	34,100	E	6.2
		Jamacha Road	SR-125 NB Ramps to Sweetwater Rd	4.1B	39,100	F	6.2
		Bancroft Drive	Troy St to SR-94 EB Ramps	2.2D	18,600	E	4.2B
Sweetwater	ME Road	Briarwood Road	SR-54 WB Ramps to Robinwood Rd	2.1D	17,700	E	4.2B
		Central Avenue	Sweetwater Rd to Bonita Rd	2.2C	15,400	E	4.2B
		Central Avenue	Bonita Rd to Frisbee St	2.2B	15,500	E	4.2B
Valle De Oro	ME Road	Jamacha Road	Campo Rd/SR-94 to Fury Ln	6.2	62,200	F	6.1
		Campo Road	Kenwood Dr to Conrad Dr	4.2B	47,800	F	6.2
		Fuerte Drive	Bancroft Dr to Lemon Ave	2.2E	13,000	E	4.2B
		Fuerte Drive	Lemon Ave to Grandview Dr	2.2E	19,300	F	4.2B
		Fuerte Drive	Grandview Dr to Avocado Blvd	2.2E	13,500	E	4.2B

Source: Fehr & Peers; June 2011

City of San Diego Forecast Model Plots





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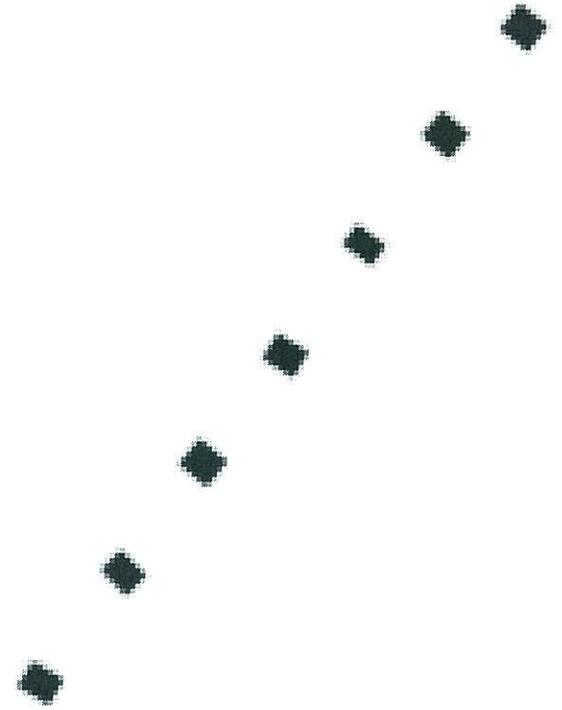
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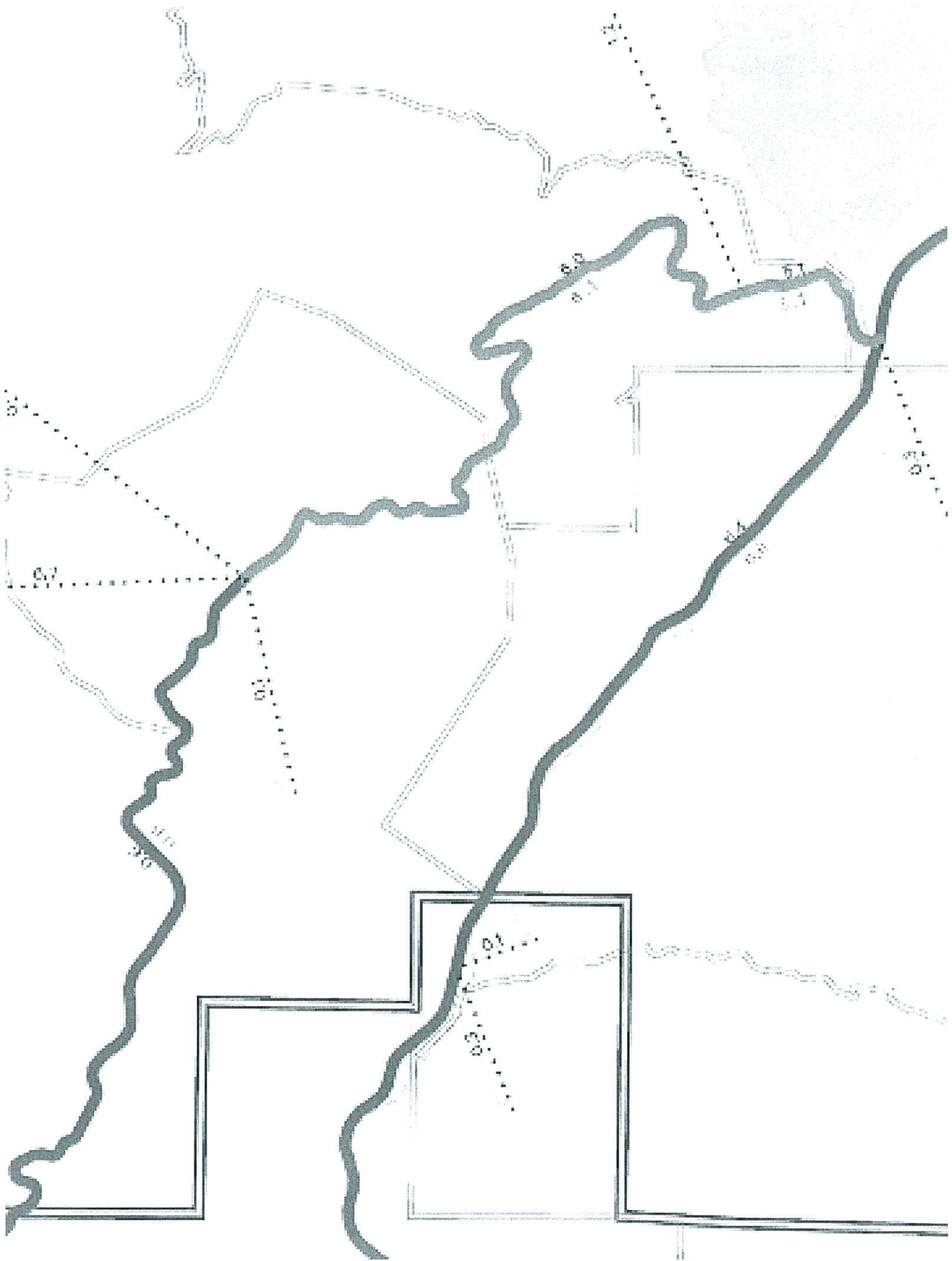
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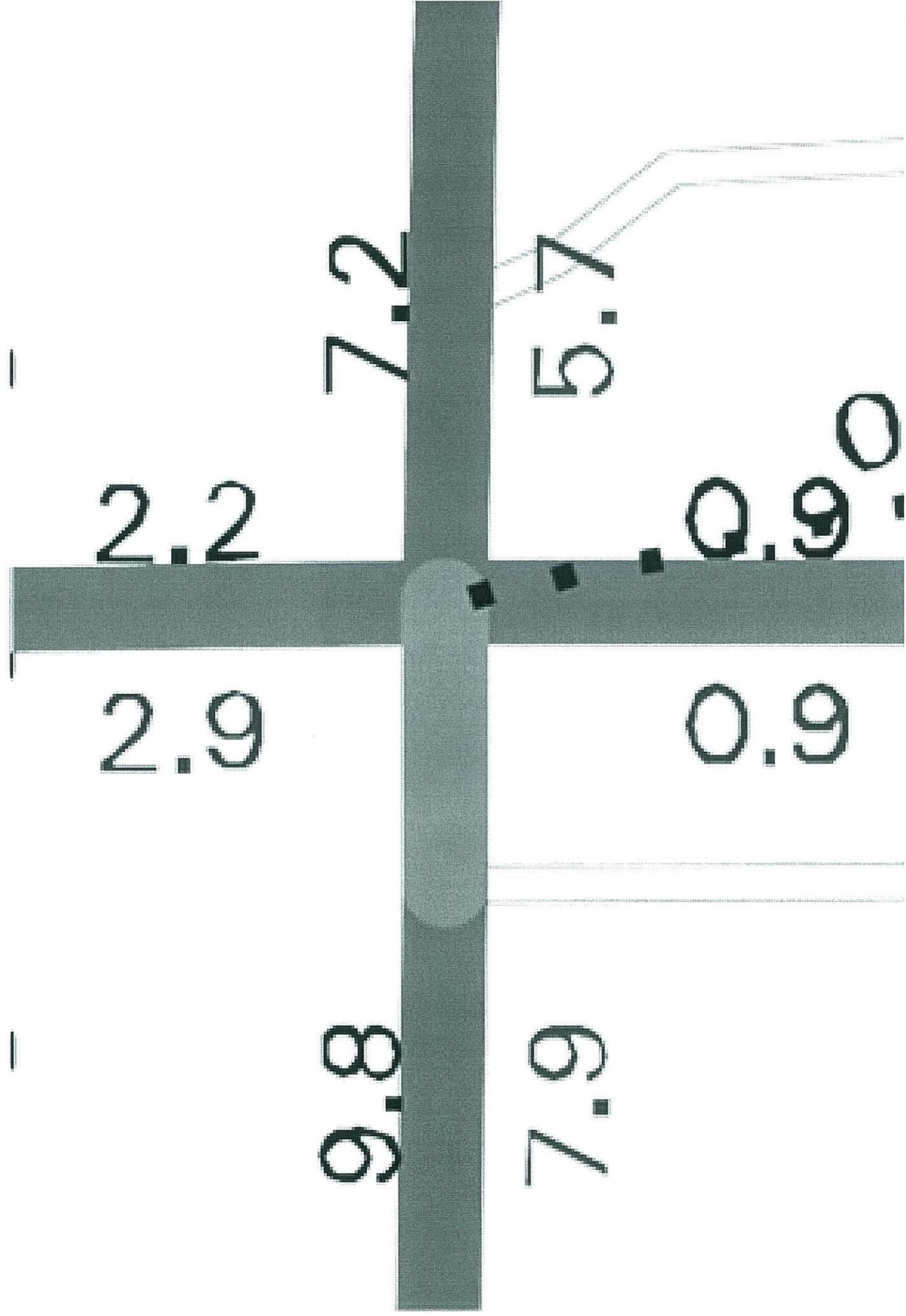
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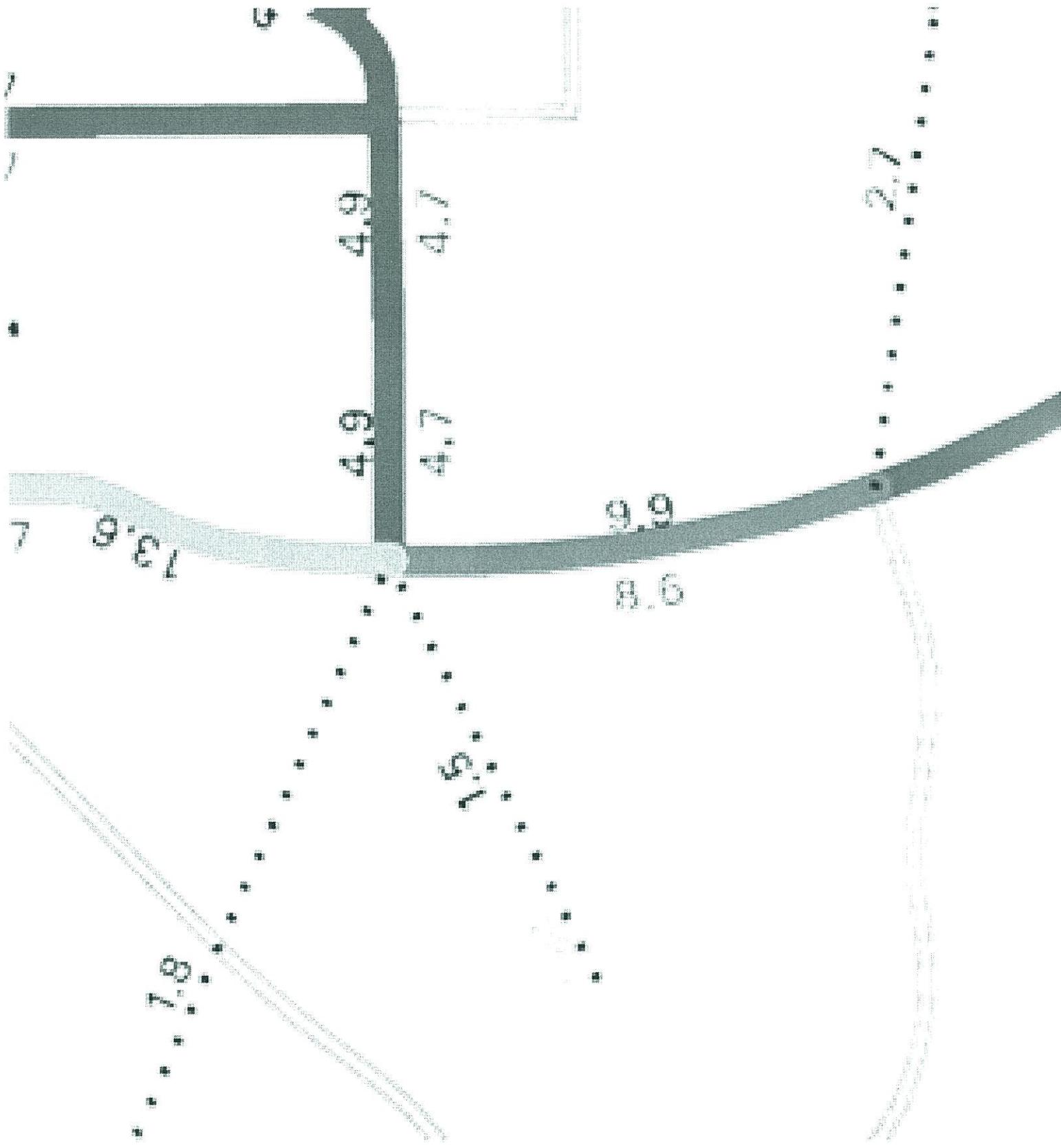
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