APPENDIX J

LAKE WOHLFORD DAM REPLACEMENT PROJECT TRAFFIC IMPACT ANALYSIS (DAM REPLACEMENT)

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT ANALYSIS

LAKE WOHLFORD DAM

Escondido, California
December 19, 2014

LLG Ref. 3-14-2324

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EXECUTIVE SUMMARY

The Lake Wohlford Dam project ("Project") proposes constructing a replacement dam immediately west of the existing dam and deconstructing the existing dam. The Project site is east of the intersection of Oakvale Road and Lake Wohlford Road on City of Escondido-owned land in unincorporated San Diego County, northeast of downtown Escondido. Project construction will generate traffic from on-site workers and the hauling of material to and from the Project site, which will cease upon completion of the Project. The Project study area includes four (4) intersections and two (2) roadway street segments. The traffic analyses for the project were conducted in accordance with the City of Escondido's *Traffic Impact Requirement Guidelines (2014)*. The following scenarios are evaluated in this report:

- Existing
- Existing + Project
- Existing + Cumulative Projects
- Existing + Project + Cumulative Projects

The Project traffic generation calculations were conducted using a site-specific trip generation methodology described in detail in *Section 7.1*. Based on the number of employees, truck trips, and other Project characteristics, the Project is calculated to generate 898 daily trips with 59 trips (31 inbound/ 28 outbound) in the AM peak hour and 59 trips (28 inbound/ 31 outbound) during the PM peak hour. These calculations represent the busiest phase of the Project, which is expected to last five months. Total Project construction, including the Oakvale Road realignment, which is studied in a separate report, is expected to require approximately sixteen months.

Project traffic was distributed via truck routes identified in the City's General Plan. The distribution was developed with respect to the Project's location relative to local destinations and regional access via I-15 and the roadway characteristics and existing traffic patterns on the truck routes.

Cumulative projects were accounted for based on research conducted by LLG within the City of Escondido and County of San Diego, and an interpolated growth rate based on Year 2035 volumes and existing traffic counts was applied.

A Horizon Year (2035) analysis was not conducted since the Project will not add any trips to the street system once construction is complete.

Based on the City of Escondido significance criteria, ***no significant impacts were identified.*** Therefore no mitigation measures are proposed**.**

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TRAFFIC IMPACT ANALYSIS

LAKE WOHLFORD DAM

Escondido, California
December 19, 2014

1.0 INTRODUCTION

Linscott, Law and Greenspan, Engineers (LLG) have prepared the following traffic impact analysis to assess the impacts to the street system as a result of the Lake Wohlford Dam project ("Project"), which proposes constructing a replacement dam immediately west of the existing dam and deconstructing the existing dam. The Project site is on land owned by the City of Escondido (City), east of the intersection of Oakvale Road and Lake Wohlford Road in unincorporated San Diego County (County), northeast of downtown Escondido.

Figure 1–1 shows the Project vicinity and ***Figure 1–2*** illustrates, in more detail, the site location.

The traffic analysis presented in this report includes the following:

- Project Description
- Existing Conditions
- Analysis Approach and Methodology
- Significance Criteria
- Analysis of Existing Conditions
- Project Trip Generation/Distribution/Assignment
- Cumulative Projects
- Analysis of Near-term Scenarios
- Significance of Impacts and Mitigation Measures

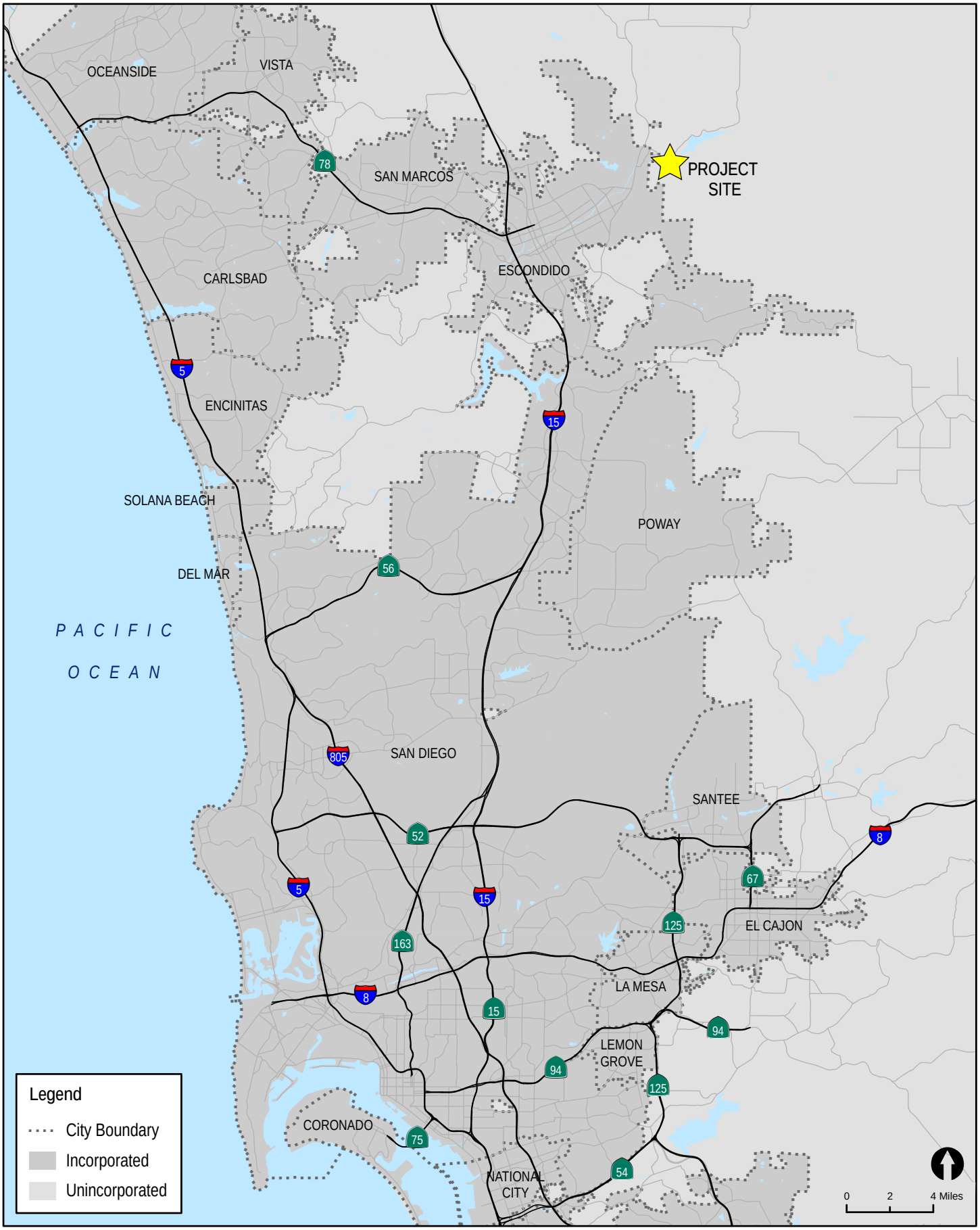

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Figure 1-1

Vicinity Map

Lake Wohlford Dam

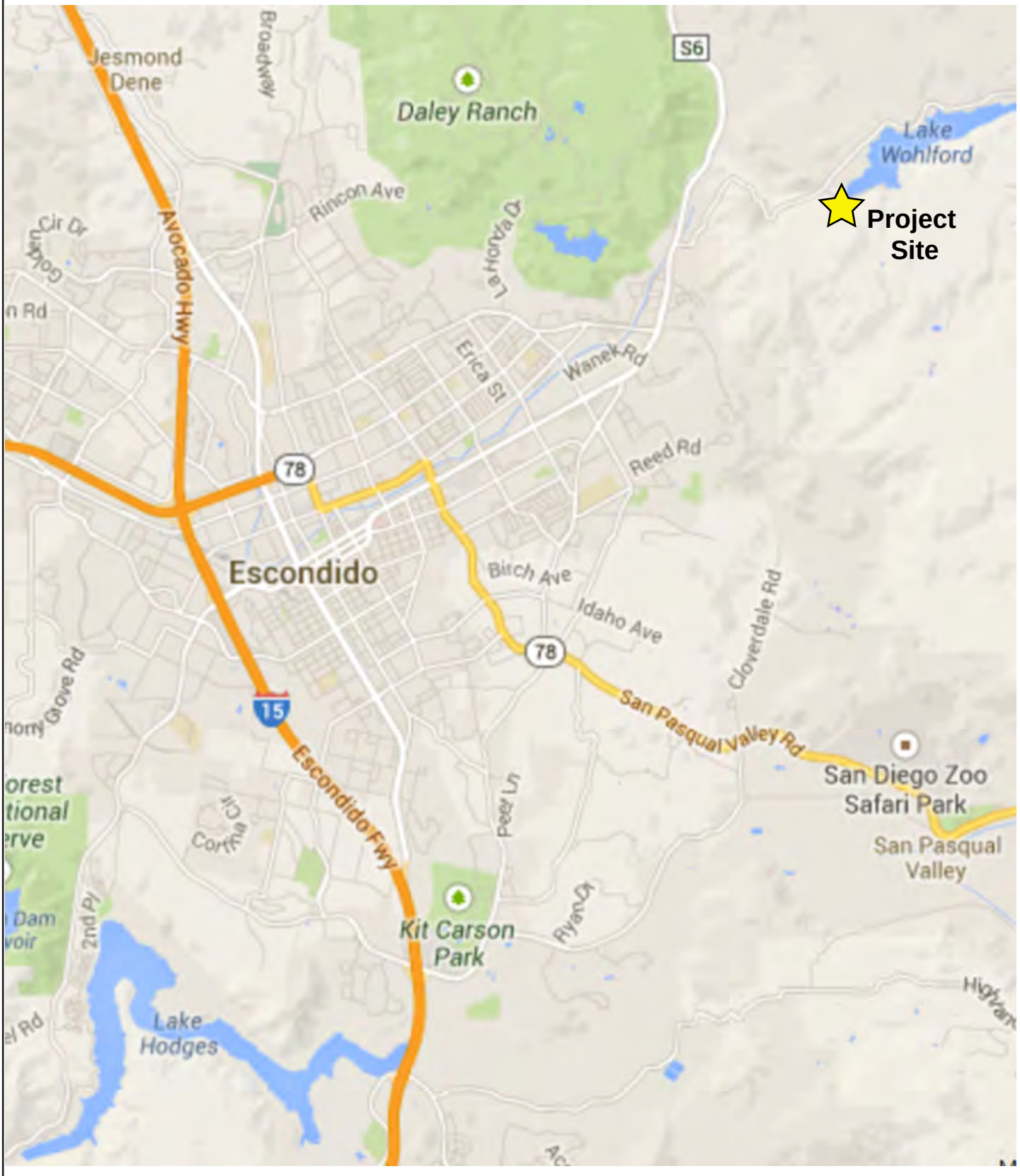

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Figure 1-2

Project Area Map

LAKE WOHLFORD DAM

2.0 PROJECT DESCRIPTION

2.1 Project Description

Lake Wohlford is a man-made reservoir owned and operated by the City of Escondido. The Project entails constructing a replacement dam immediately downstream (west) of the existing dam and deconstructing the existing dam by removing the hydraulic fill material that is at a higher elevation than the original rock fill. The replacement dam would feature an outlet tower that is integrated into the dam's upstream face; the top of the existing outlet tower would be demolished, and the bottom of the existing outlet tower and the outlet pipe would be abandoned in place.

To accommodate the replacement dam's configuration, the City also intends to realign a portion of Oakvale Road that passes the southern dam abutment. This portion of the road would be realigned south of its current location, requiring excavation into the adjacent hillside. The City intends to construct the Oakvale Road realignment as a separate construction package prior to the dam construction and this road realignment is the subject of a separate study. Therefore, this study is focused on the Project phases subsequent to the road realignment.

Total Project construction, including the realignment of Oakvale Road, is anticipated to require approximately sixteen months. Roadway excavation is scheduled to begin in May 2015. Completion of the realigned road is expected in December 2015. Subsequently, excavation of the dam foundation is anticipated to take 2 to 3 months. Establishment of a temporary access road is anticipated to take 1 to 2 months. The dam raise construction is then anticipated to take 5 months.

2.2 Project Location

Lake Wohlford is located in the rural foothills of unincorporated County of San Diego, approximately 0.5 miles east of the City's incorporated boundaries and 5 miles northeast of the City's downtown center. Lake Wohlford is within the County's unincorporated Valley Center Community Planning Area, on land owned by the City. The primary staging area for Project construction is anticipated to be located at the Lake Wohlford Marina and on the adjacent lakeshore area to the west. A temporary access road would connect the Marina staging area to the dam construction zone.

3.0 EXISTING CONDITIONS

3.1 Study Area

The study area was determined in accordance with the City of Escondido's published *Traffic Impact Analysis Requirement Guidelines (2014)*. Further details on the City's guidelines for developing the study area can be found in *Section 4.0*. The study area includes the following four (4) existing public intersections and two (2) street segments.

Intersections:

1. Lake Wohlford Road / Oakvale Road
2. Lake Wohlford Road / Valley Center Road
3. Valley Parkway / El Norte Parkway
4. Valley Parkway / Bear Valley Parkway

Segments:

Lake Wohlford Road
Valley Center Road to Oakvale Road

Valley Parkway
El Norte Parkway to Lake Wohlford Road

3.2 Existing Transportation Conditions

The following is a brief description of the streets in the Project area. Roadway classifications are taken from the City of Escondido's *General Plan Mobility Element (2011)*.

Lake Wohlford Road is a generally east/west facility with portions in both the City of Escondido and the unincorporated area of the County. Within the City of Escondido it is classified as a Local Collector. Within the unincorporated County it is classified as a 2.2F Light Collector. For the purpose of being conservative, the lower-capacity County classification is used. Lake Wohlford Road is currently constructed as a two-lane undivided roadway with narrow shoulders and no passing lanes, through generally steep and mountainous terrain. The posted speed limit is 50 mph.

Valley Parkway is a north/south roadway within the City of Escondido and is classified as a Prime Arterial in the vicinity of the Project. From Bear Valley Parkway to Beven Drive, Valley Parkway is currently built as a five-lane divided roadway. From Beven Drive to Lake Wohlford Road, Valley Parkway transitions to a two-lane roadway with a two-way left-turn lane median. The posted speed limit is 45 mph.

Bear Valley Parkway is a north/south facility in the City of Escondido with varying classifications. In the Project study area, from Valley Parkway to Boyle Avenue it is currently constructed as a four-lane divided roadway and classified as a Major Road. The posted speed limit is 45 mph north of Boyle Avenue. Curbside parking is prohibited. Bear Valley Parkway provides Class II bicycle lanes from Valley Parkway to Boyle Avenue.

El Norte Parkway is currently built as a Four-Lane Collector west of Valley Parkway to Washington Avenue. Bike lanes and bus stops are provided on El Norte Parkway in the study area.

Figure 3–1 shows an existing conditions diagram, including signalized/unsignalized intersections and lane configurations.

3.3 Existing Traffic Volumes

Table 3–1 is a summary of the most recent available Average Daily Traffic (ADT) counts. LLG commissioned these street segment counts as well as manual hand counts at the study area intersections in February and March 2014 when schools were in session.

TABLE 3–1
EXISTING TRAFFIC VOLUMES

Street Segment	**ADT** [a]
Lake Wohlford Road	
Valley Center Road to Oakvale Road	4,680
Valley Parkway	
El Norte Parkway to Lake Wohlford Road	29,700 [b]

Footnotes:

a. Average Daily Traffic Volume counts conducted in February and March 2014 by LLG Engineers.

b. Volume based on Escondido General Plan Update Traffic Impact Analysis, December 5, 2011

Figure 3–2 shows the Existing Traffic Volumes. ***Appendix A*** contains the manual count sheets.

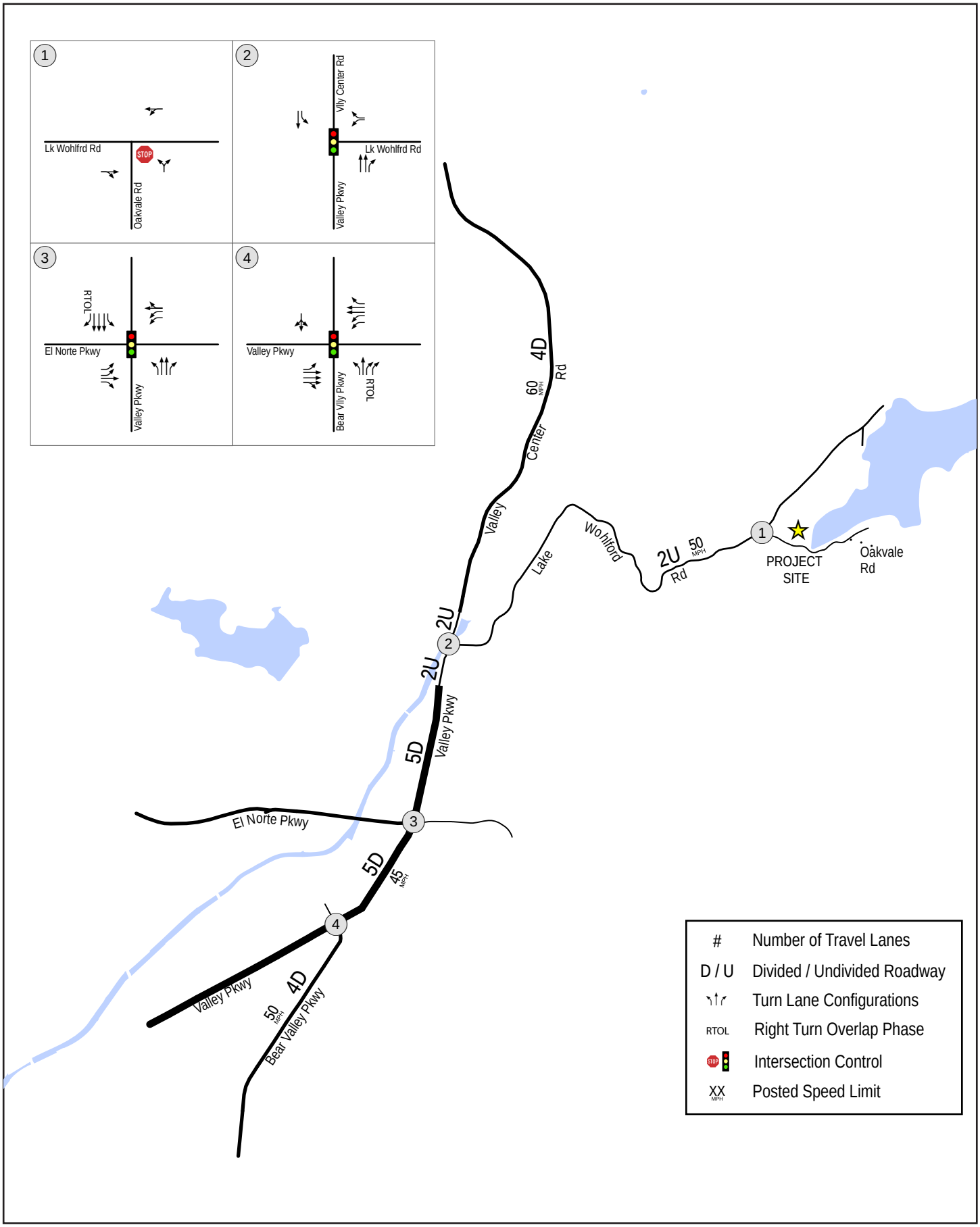

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Figure 3-1

Existing Conditions Diagram

LAKE WOHLFORD DAM

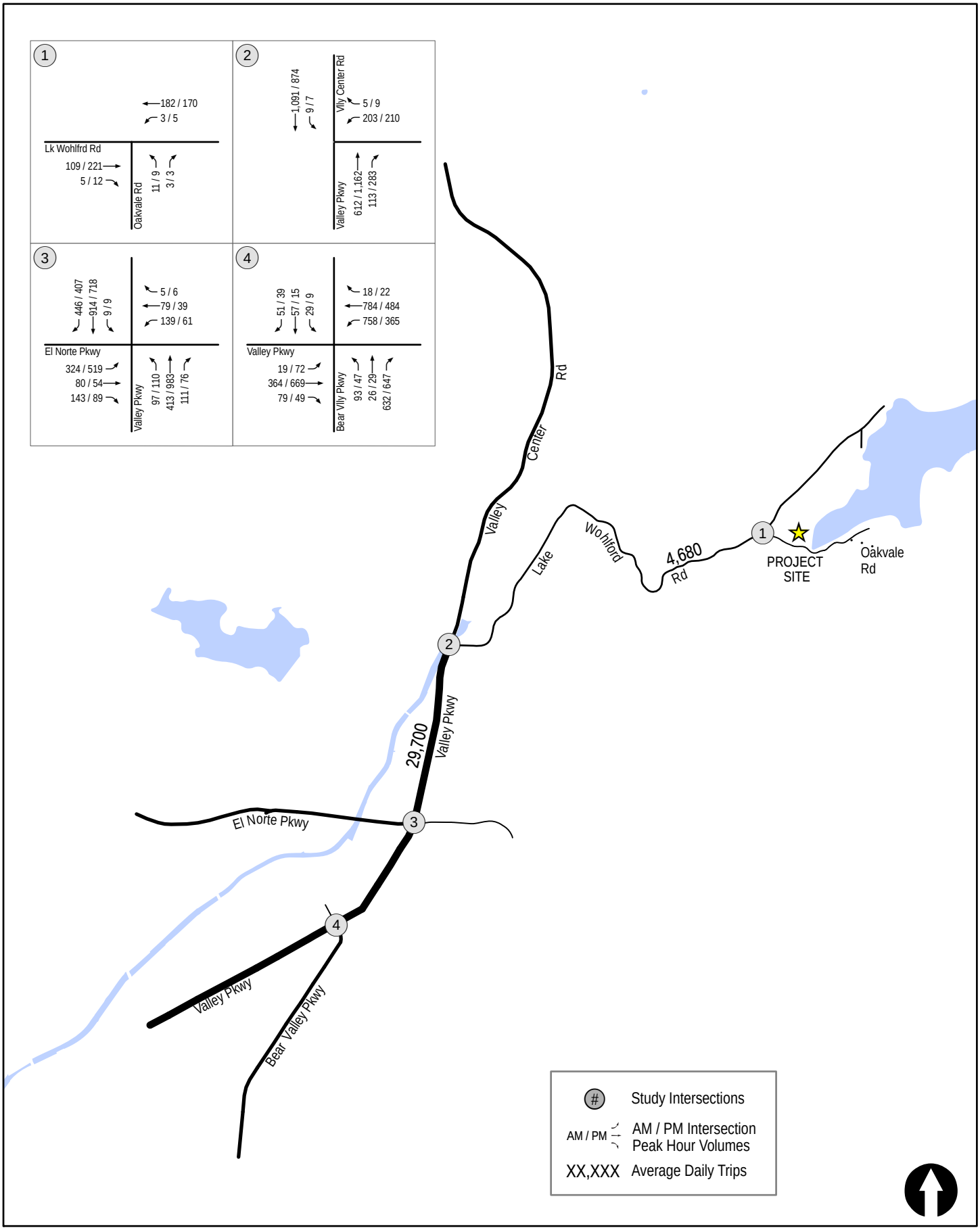

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Figure 3-2

Existing Traffic Volumes

LAKE WOHLFORD DAM

4.0 ANALYSIS APPROACH AND METHODOLOGY

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized intersections, unsignalized intersections and roadway segments.

The City of Escondido's *Traffic Impact Analysis Guidelines* (2014) provide the following direction on report approach and methodology:

1. The traffic study should include a SANDAG prepared Select Zone Assignment for the project to determine the project traffic distribution.
2. The traffic study should utilize the Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002) published by SANDAG, to determine the project traffic volume.
3. Traffic should utilize the following scenarios to determine project traffic impacts at intersections and along roadway segments.
    a. Existing Condition (based on new traffic counts)
    b. Existing + Project Traffic Condition
    c. Existing + Cumulative Projects Traffic Condition
    d. Existing + Cumulative Projects + Project Traffic Condition
    e. Year 2035 Traffic Condition
4. Highway Capacity Manual (Year 2010) should be utilized to determine level of service for intersections.
5. The study area should include at least all site access points and major intersections (signalized and un-signalized) adjacent to the site. The tables below contain the trigger-points to identify if a roadway segment or intersection should be included in the Traffic Impact Analysis.

Table 4–1 below contains the trigger-points for roadway segments within the City of Escondido for different street classifications based on ADT added to the segment.

Table 4–2 below contains the trigger-points for intersections based on peak hour volumes.

TABLE 4–1
TRAFFIC IMPACT ANALYSIS ADT THRESHOLDS FOR ROADWAY SEGMENTS

Street Classification	Lanes	Cross Sections (ft.)	TIA Trigger-Points (ADT generation)
Prime Arterial	(8 lanes)	116/136 (NP)	900
	(6 lanes)	106/126 (NP)	800
Major Road	(6 lanes)	90/110 (NP)	700
	(4 lanes)	82/102 (NP)	500
Collector	(4 lanes)	64/84 (NP)	500
	(4 lanes)	(WP)	250
Local Collector and all other	(2 lanes)	42/66 (NP) (WP)	200

TABLE 4–2
TRAFFIC IMPACT ANALYSIS ADT THRESHOLDS FOR INTERSECTIONS

Intersection Classification (Minor leg of the intersection)	TIA Trigger-Points (AM or PM peak hour trips added to any leg)
Prime Arterial	50
Major Road	40
Collector	30
Local Collector	20

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 18 of the *2010 Highway Capacity Manual (HCM),* with the assistance of the *Synchro* (version 8) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in ***Appendix B***.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and LOS was determined based upon the procedures found in Chapters 19 and 20 of the *2010 Highway Capacity Manual (HCM),* with the assistance of the *Synchro* (version 8) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in *Appendix B.*

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of Escondido *Roadway Classification, Level of Service, and ADT Table*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The City of Escondido *Roadway Classification, Level of Service, and ADT Table* is attached in ***Appendix C***.

5.0 SIGNIFICANCE CRITERIA

The project study area includes locations that lie within the City of Escondido's General Plan Area. The following is a summary of the City's published significance criteria.

5.1 City of Escondido

In accordance with "SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region", the following thresholds shall be used to identify if a project is of significant traffic impact under any scenario. Based on SANTEC/ITE guidelines, if now or in the future, the project's traffic impact causes the values in ***Table 5–1*** below to be exceeded in a roadway segment or an intersection that is operating at LOS D or worse, it is determined to be a significant impact and the project shall identify mitigation measures.

TABLE 5–1
CITY OF ESCONDIDO TRAFFIC IMPACT SIGNIFICANCE THRESHOLDS

Level of Service With Project	**Allowable Change due to Project Impact**		
	Roadway Segments		**Intersections**
	V/C	**Speed Reduction (mph)**	**Delay (sec.)**
D, E, or F	**0.02**	**1**	**2**

6.0 ANALYSIS OF EXISTING CONDITIONS

6.1 Peak Hour Intersection Levels of Service

Table 6–1 summarizes the existing peak hour intersection operations. As shown, all the study area intersections are calculated to currently operate at service levels of LOS C or better during both the AM and PM peak hours.

TABLE 6–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
1. Lake Wohlford Road / Oakvale Road	MSSC [c]	AM PM	10.4 11.5	B B
2. Lake Wohlford Road / Valley Center Road	Signal	AM PM	15.5 10.7	B B
3. Valley Parkway / El Norte Parkway	Signal	AM PM	22.8 26.6	C C
4. Valley Parkway / Bear Valley Parkway	Signal	AM PM	24.9 20.3	C C

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Minor Street Stop Controlled intersection, minor street left-turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

6.2 Daily Street Segment Levels of Service

Table 6–2, on the following page, summarizes the existing segment operations along the key study area roadways. As shown, both roadway segments currently operate at LOS C or better.

TABLE 6–2
EXISTING STREET SEGMENT OPERATIONS

Street Segment	Existing Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]	V/C [d]
Lake Wohlford Road					
Valley Center Road to Oakvale Road	Local Collector	9,700 [e]	4,680	A	0.482
Valley Parkway					
El Norte Parkway to Lake Wohlford Road	5-Lane Major [f]	43,500	29,700	C	0.683

Footnotes:

a. Capacities based on the *City of Escondido Roadway Classification* (see Appendix C).
b. Average Daily Traffic volumes
c. Level of Service
d. Volume to Capacity
e. County of San Diego "Light Collector w/Reduced Shoulder (2.2F)" capacity used.
f. Capacity based on average of 4-Lane Major and 6-Lane Major

7.0 TRIP GENERATION, DISTRIBUTION, AND ASSIGNMENT

7.1 Trip Generation

Project trip generation will be composed of heavy truck trips making multiple round-trips per day and employee trips, mainly commute trips to and from the site by workers who will remain on-site for the duration of their shift. Each of these components are discussed in greater detail in the following sections. Based on direct coordination with the client, LLG determined the following values and assumptions that are relevant to both components of Project trip generation:

- The Project will employ a 16-hour workday comprised of two shifts.
- The shifts are typically expected to run from 6 AM to 3 PM and from 3 PM to 12 AM.

7.1.1 *Truck Trips*

The Project consists of multiple phases which would generate a varying number of daily haul trips by heavy trucks.

- **Excavation** of the dam's foundation and adjacent slopes would result in approximately 59,600 cubic yards of material from foundation and abutment slopes hauled to a nearby quarry. Hauling would entail 96 truckloads per day over a 9-week period.
- The **dam construction** phase would require approximately 193,000 tons of material, including aggregate, fly ash, and cement, to be delivered to the site. In total, the hauling of material to the site would result in 88 truckloads per day over approximately 13-weeks of the 4- to 5-month dam construction period.
- **Demolition of the existing dam**, assuming the full dam removal option is implemented, would result in 59,100 cubic yards of material to be hauled off-site. This would require 96 truckloads per day over a 9-week period.

Although the base number of truck trips is lower during the dam construction phase, 20 cubic-yard trucks would be used during this phase, versus 10 cubic-yard trucks in other phases. The larger truck type in use during this phase would result in a relatively greater effect on the street system. Therefore the dam construction phase, representing the most intense phase of the Project, is the phase used to calculate Project trip generation in this analysis.

Project ADT associated with trucks trips is calculated by applying a rate of 2.0 to the 88 round trips to account for both inbound and outbound truck trips. A Passenger Car Equivalent (PCE) of 4.0 is also applied to account for the differing speed, acceleration, and maneuverability of heavy trucks compared to typical passenger vehicles. The AM and PM peak hour percentages were determined by assuming 100% of truck trips take place within and are evenly dispersed over the 16-hour workday described previously. This yields an hourly share of 6.25% of truck trips, which is conservatively rounded up to 7% in the calculation below.

7.1.2 *Employee Trips*

Project engineers calculate that during the dam construction phase there will be a maximum of 44 on-site workers during any one shift, resulting conservatively in 88 employees traveling to the site in a single day. A trip rate of 2.2 per employee was used to account for daily commuting to and from the Project site and occasional extra trips taken by employees during the workday. This rate also includes trips by other miscellaneous staff that may be on site on an intermittent basis, including surveyors, materials testing, inspection, or environmental monitoring.

Based on the typical shift schedule previously noted, the arrival and departure of each shift would occur outside of 7 AM to 9 AM and 4 PM to 6 PM peak periods. The remaining 0.2 trips per employee, or roughly 10% of the total employee trip generation, may occur throughout the day. It is conservatively assumed that these trips may take place during the AM and PM peak periods, and are split evenly between the two peaks.

Table 7–1 shows a summary of the Project traffic generation. As tabulated the proposed Project is calculated to generate the equivalent of 898 daily trips with 59 trips (31 inbound/ 28 outbound) in the AM peak hour and 59 trips (28 inbound/ 31 outbound) during the PM peak hour.

TABLE 7–1
PROJECT TRIP GENERATION

Type	Amount	Rate[a]	PCE[b]	ADT	AM Peak Hour				PM Peak Hour			
					% of ADT	In:Out Split	Volume In	Volume Out	% of ADT	In:Out Split	Volume In	Volume Out
Truck	88	2.0	4.0	704	7%	5:5	25	24	7%	5:5	24	25
Employee	88	2.2	1.0	194	5%	6:4	6	4	5%	4:6	4	6
Total	—	—	—	898	—	—	31	28	—	—	28	31

Footnotes:

a. Rate is based on site-specific trip generation factors.

b. Passenger Car Equivalent

7.2 Trip Distribution & Assignment

Project trips were distributed regionally based on potential destinations for material hauling from construction activity. A small number of trips were distributed via Lake Wohlford Road and Valley Center Road to possible local destinations in Valley Center. The rest of the trips are distributed to regional destinations via the City of Escondido's identified truck routes, ultimately reaching I-15 for regional access. Trips were split among these existing truck routes based on orientation to northbound or southbound destinations and roadway characteristics including size of the roadway, existing congestion patterns, surrounding land uses, and spacing of signalized intersections.

Figure 7–1 shows the Project trip distribution percentages. ***Figure 7–2*** shows the AM/PM peak hour Project traffic volumes. ***Figure 7–3*** shows Existing + Project traffic volumes. ***Figure 7–4*** shows truck routes within the City of Escondido as identified in the City's *Mobility and Infrastructure Element*.

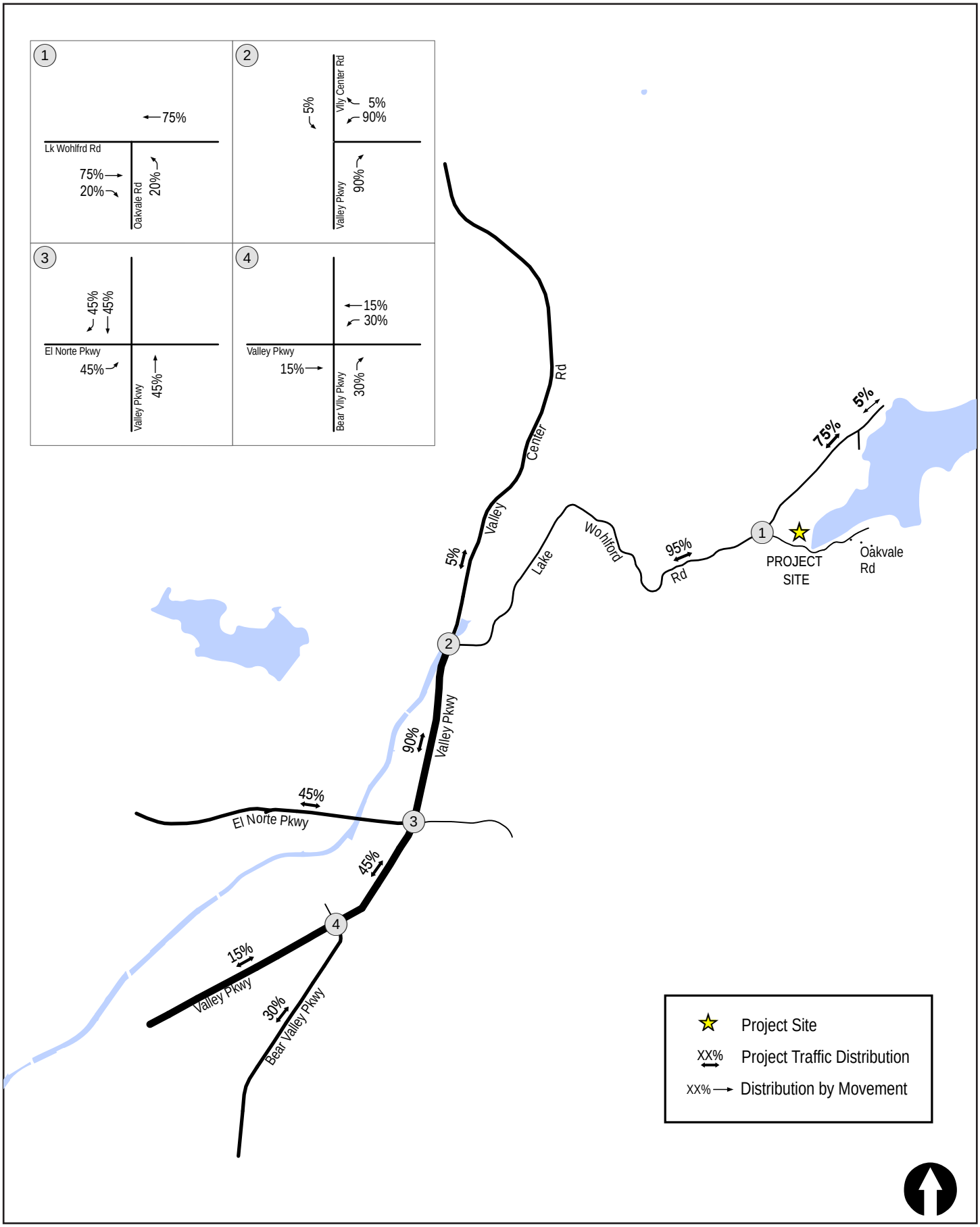

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Figure 7-1

Project Trip Distribution

LAKE WOHLFORD DAM

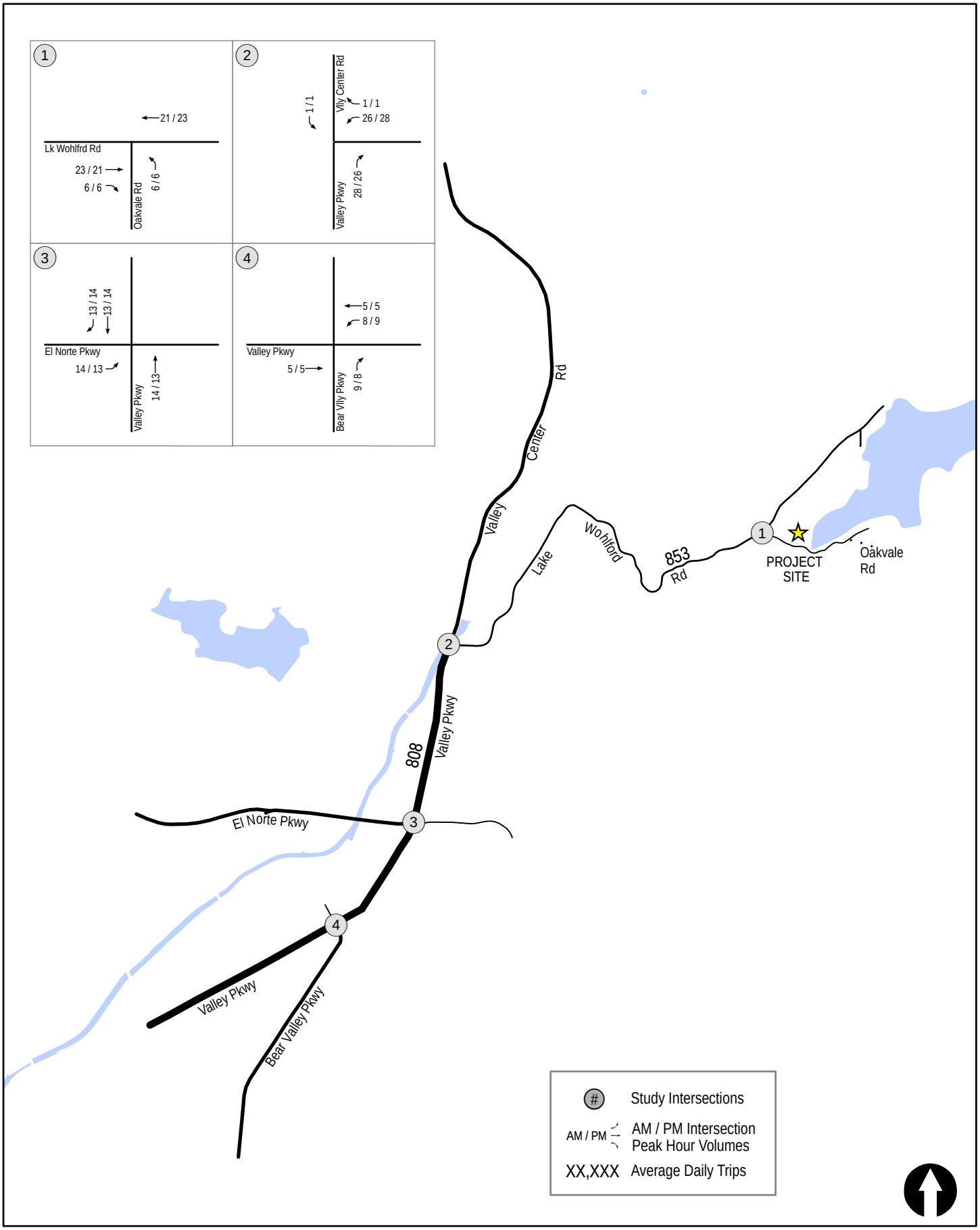

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Figure 7-2

Project Traffic Volumes

LAKE WOHLFORD DAM

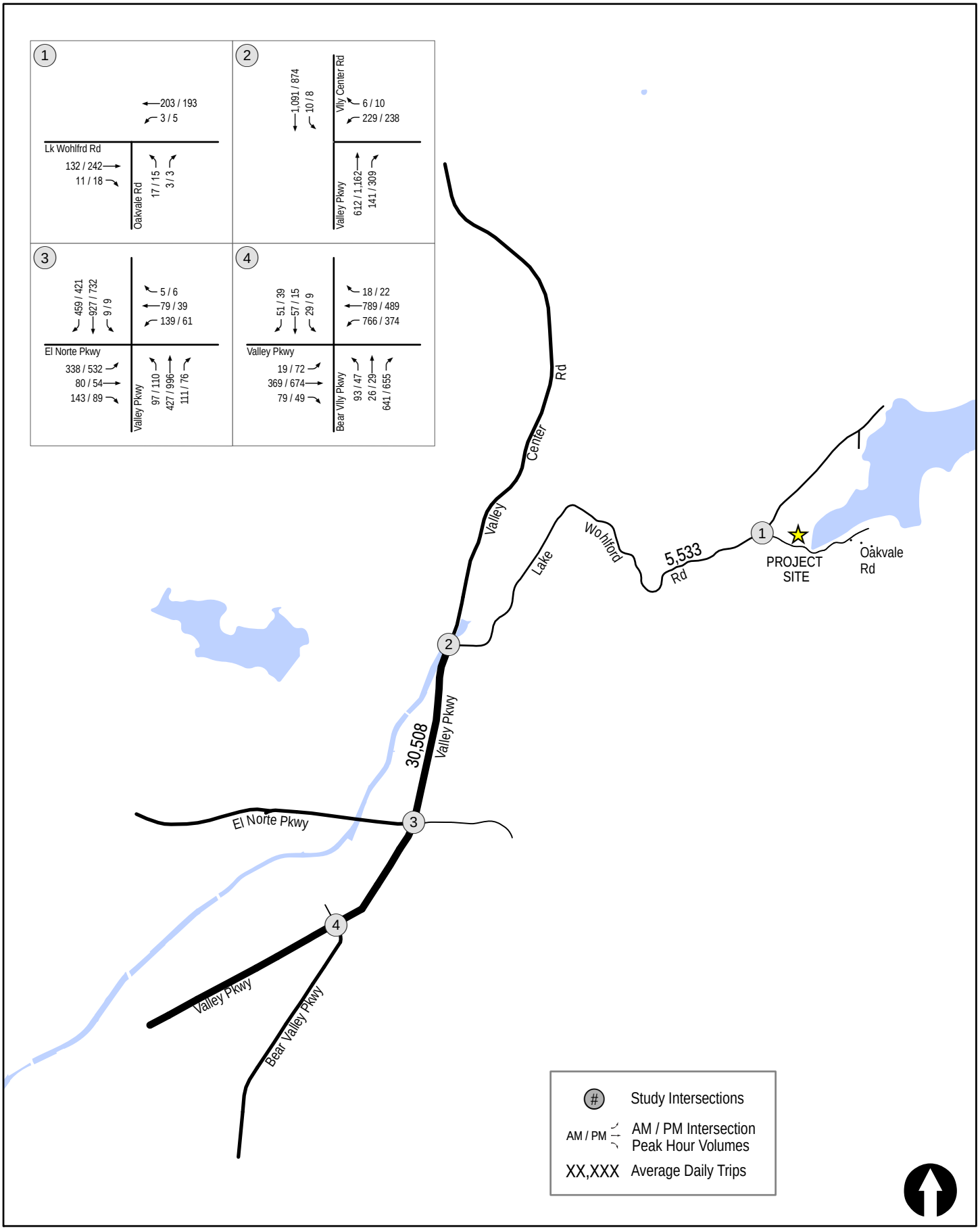

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Figure 7-3

Existing + Project Traffic Volumes

LAKE WOHLFORD DAM

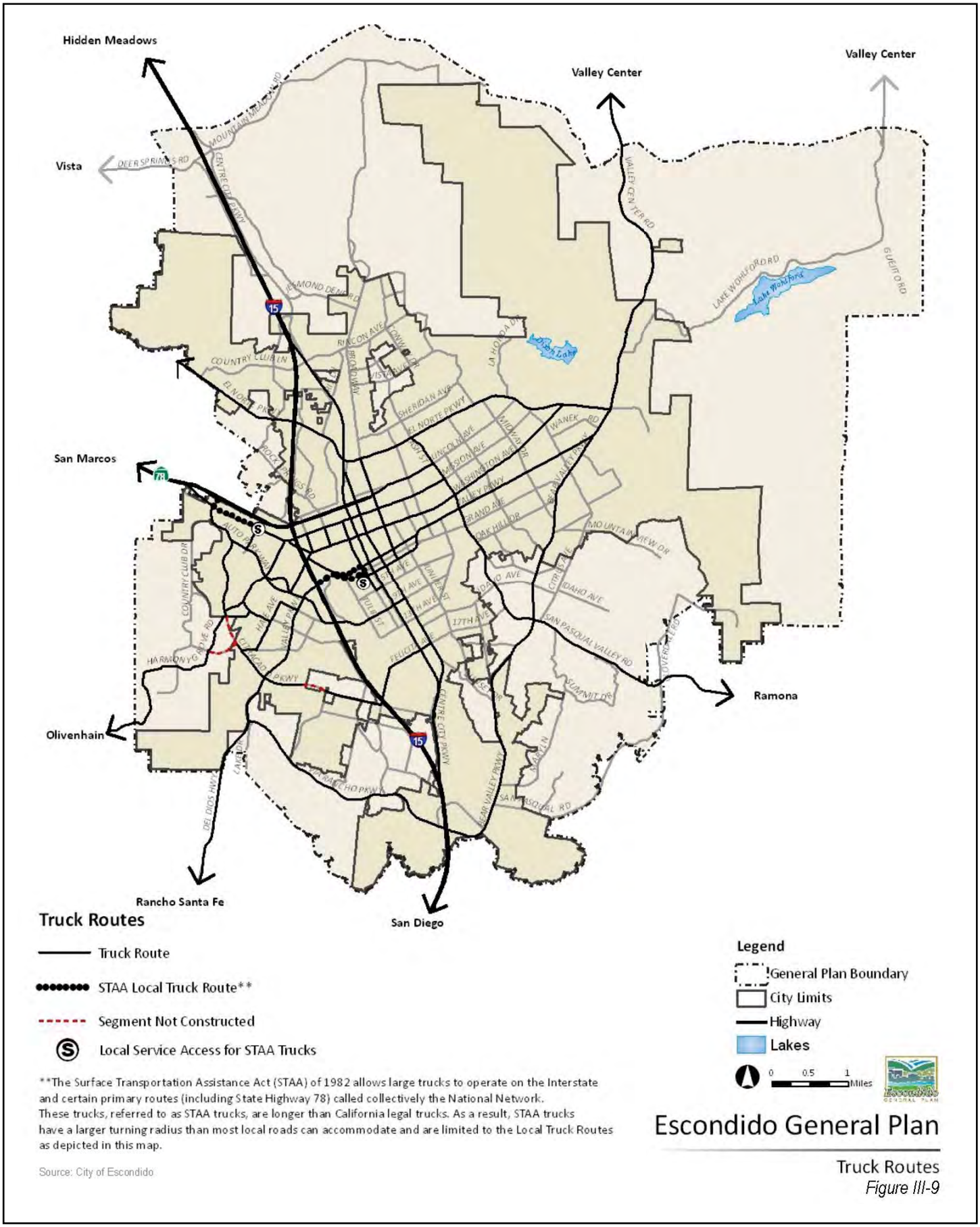

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Figure 7-4

City of Escondido Truck Routes

8.0 CUMULATIVE GROWTH TRAFFIC VOLUMES

Cumulative projects are other projects in the study area that will add traffic to the local circulation system in the near future. LLG coordinated directly with City of Escondido and County of San Diego staff to determine and obtain cumulative projects' traffic volume information to be included for analysis.

LLG has recently completed traffic studies for two projects in the vicinity which may add traffic to the roadway system analyzed. However, due to uncertain completion dates of these projects a cumulative growth approach was used. In order to forecast near-term cumulative traffic conditions LLG used interpolated growth between Year 2035 and existing Year 2014 traffic counts. Typical annual growth ranged between 2-5% at study area intersections and segments.

Based on the estimates of when Project phases are scheduled to begin, as presented in *Section 2.1*, the dam construction phase, which is the basis of Project trip generation as discussed in *Section 7.1*, would begin in early 2016. Thus, location-specific growth factors were applied to each study area location for a period of two (2) years to arrive at near-term baseline conditions which are analyzed in this report as "+ Cumulative Growth" scenarios.

Figure 8–1 shows the total cumulative growth traffic volumes. ***Figure 8–2*** shows the existing + cumulative growth traffic volumes. ***Figure 8–3*** shows the existing + project + cumulative growth traffic volumes.

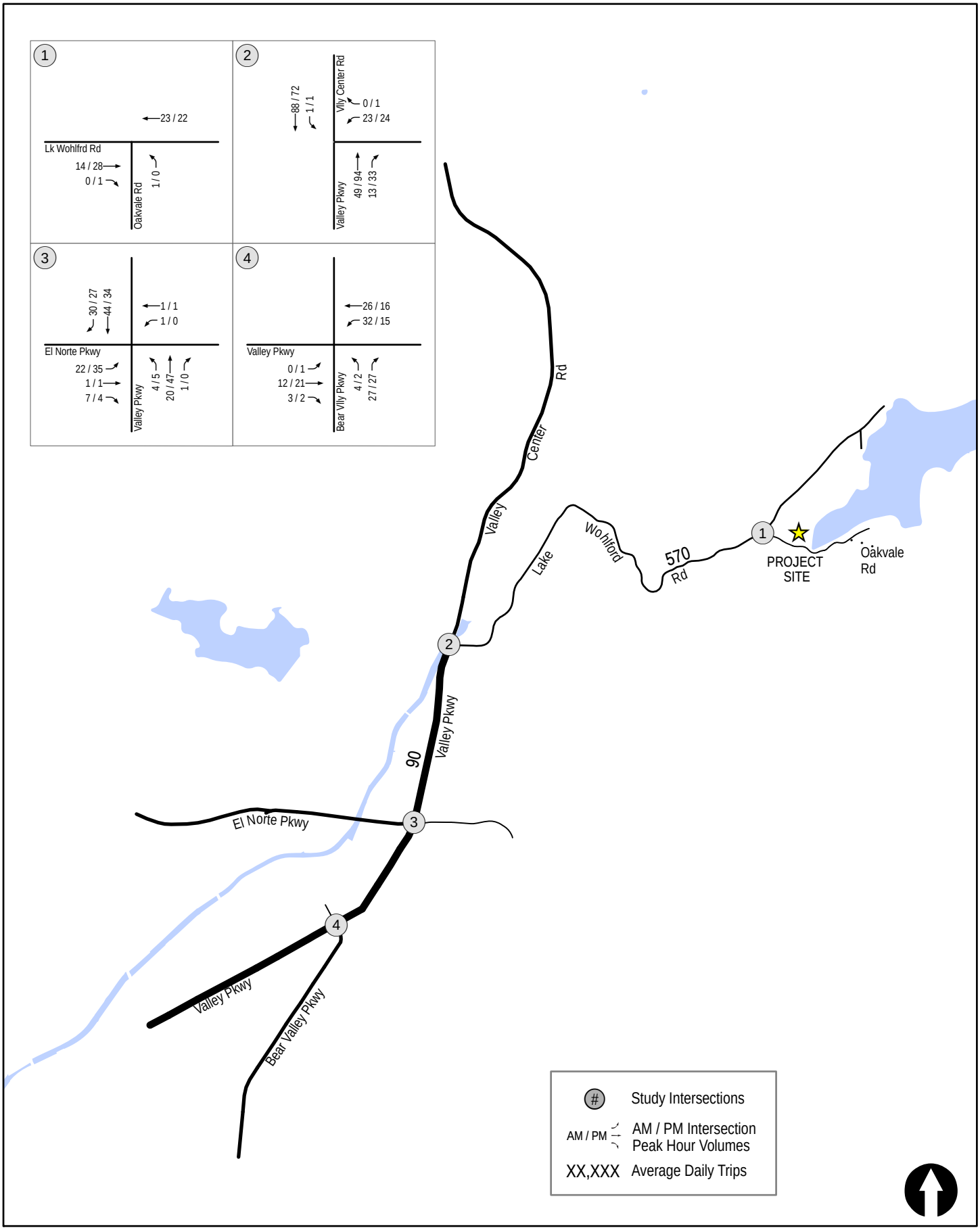

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Figure 8-1

Cumulative Growth Traffic Volumes

LAKE WOHLFORD DAM

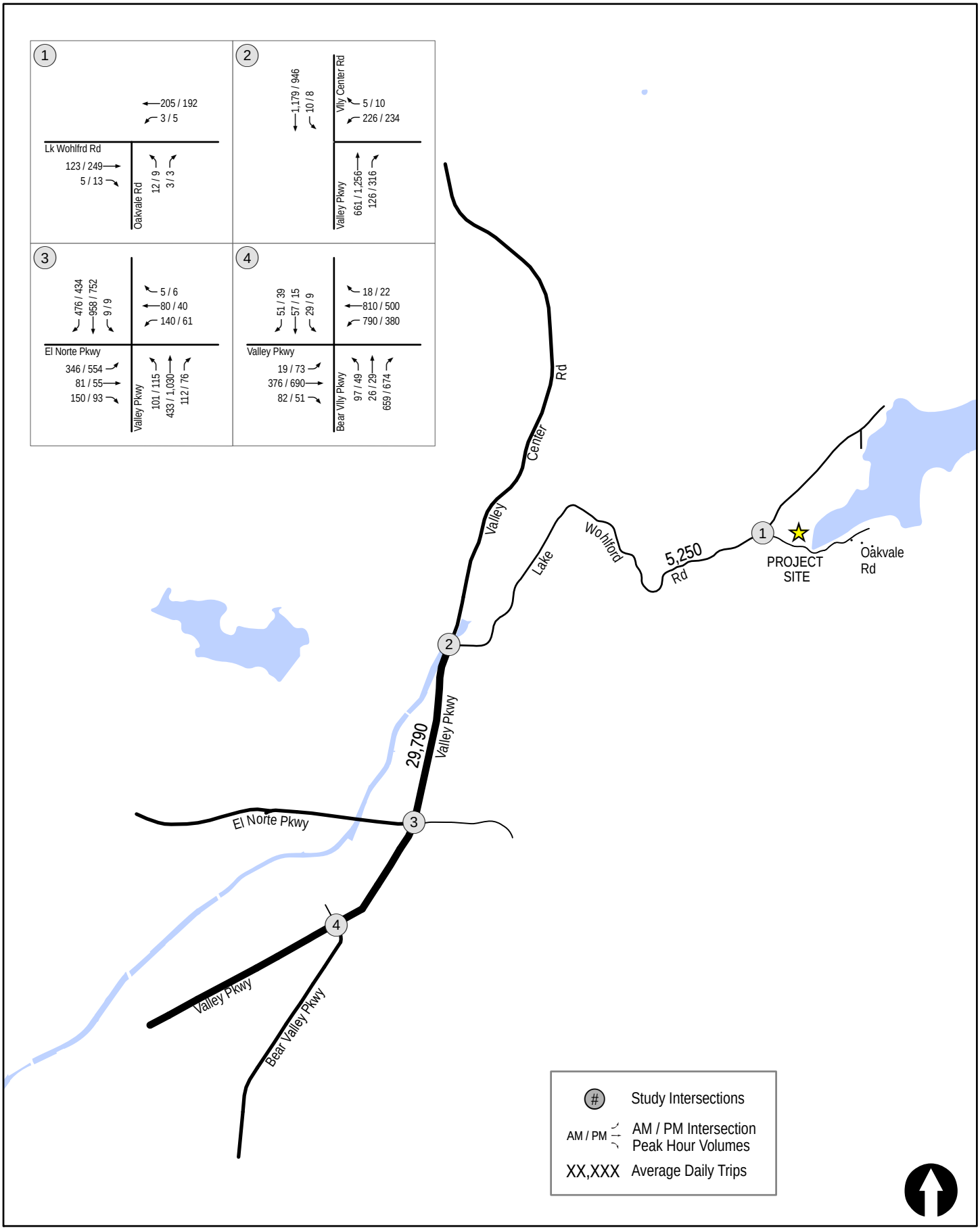

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Figure 8-2

Existing + Cumulative Growth Traffic Volumes

LAKE WOHLFORD DAM

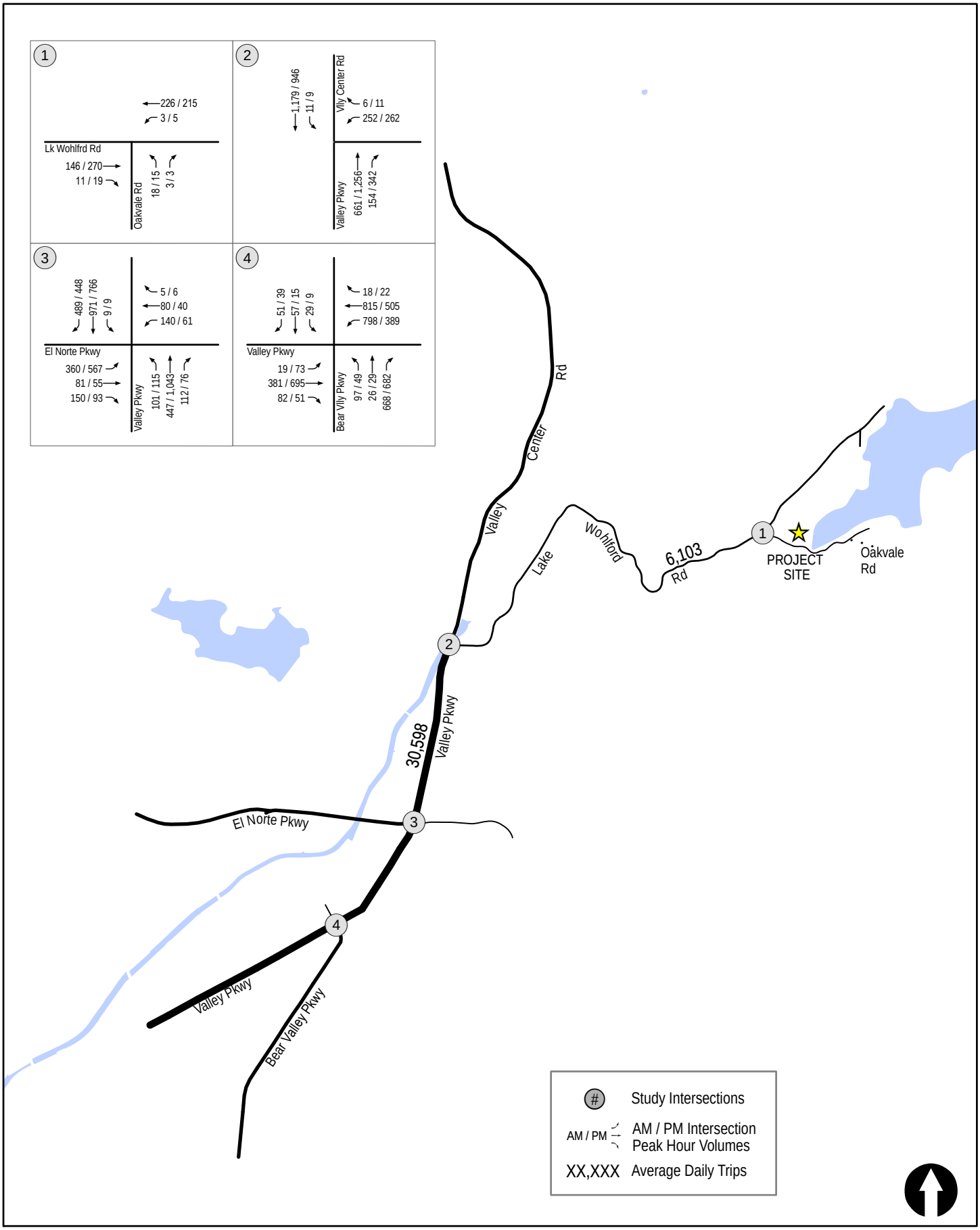

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Figure 8-3

Existing + Project + Cumulative Growth Traffic Volumes

LAKE WOHLFORD DAM

9.0 ANALYSIS OF NEAR-TERM SCENARIOS

The following is a summary of the operational analyses for the various street-system components for the near-term traffic scenarios.

9.1 Existing + Project

9.1.1 *Intersection Analysis*

Table 9–1 summarizes the peak hour intersection operations with the addition of Project traffic. *Table 9–1* shows that all the study area intersections are calculated to continue to operate at LOS C or better with the addition of Project traffic.

9.1.2 *Segment Operations*

Table 9–2 summarizes the roadway segment operations with the addition of Project traffic. As seen in *Table 9–2*, study area segments are calculated to continue to operate at LOS C or better.

9.2 Existing + Cumulative Growth

9.2.1 *Intersection Analysis*

Table 9–1 summarizes the peak hour intersection operations with the addition of cumulative growth traffic. *Table 9–1* shows that the study area intersections are calculated to operate at LOS C or better.

9.2.2 *Segment Operations*

Table 9–2 summarizes the roadway segment operations with the addition of cumulative growth traffic. As seen in *Table 9–2*, all study area segments are calculated to continue to operate at LOS C or better.

9.3 Existing + Project + Cumulative Growth

9.3.1 *Intersection Analysis*

Table 9–1 summarizes the peak hour intersection operations for Existing + Cumulative Growth + Project conditions. *Table 9–1* shows that all study area intersections are calculated to operate at LOS C or better with the addition of Project traffic.

9.3.2 *Segment Operations*

Table 9–2 summarizes the roadway segment operations for the Existing + Cumulative Growth + Project conditions. As seen in *Table 9–2*, all study area segments are calculated to continue to operate at LOS C or better.

TABLE 9–1
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Cumulative Growth		Existing + Cumulative Growth + Project			Significant Impact?
			Delay[a]	LOS[b]	Delay	LOS	Δ[c]	Delay	LOS	Delay	LOS	Δ[c]	
1. Lake Wohlford Rd / Oakvale Rd	MSSC[d]	AM	10.4	B	11.0	B	0.6	10.7	B	11.4	B	0.7	No
		PM	11.5	B	12.2	B	0.7	12.0	B	12.9	B	0.9	No
2. Lake Wohlford Rd / Valley Center Rd	Signal	AM	15.5	B	17.6	B	2.1	22.9	C	26.3	C	3.4	No
		PM	10.7	B	12.3	B	1.6	12.4	B	14.1	B	1.7	No
3. Valley Parkway / El Norte Parkway	Signal	AM	22.8	C	23.1	C	0.3	23.6	C	23.9	C	0.3	No
		PM	26.6	C	27.8	C	1.2	30.3	C	31.9	C	1.6	No
4. Valley Parkway / Bear Valley Parkway	Signal	AM	24.9	C	25.1	C	0.2	25.6	C	25.8	C	0.2	No
		PM	20.3	C	20.4	C	0.1	20.6	C	20.7	C	0.1	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes an increase in delay due to project.
d. Minor Street Stop Controlled intersection. Minor street left turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 9–2
NEAR-TERM STREET SEGMENT OPERATIONS

Street Segment	Capacity (LOS E) [a]	Existing			Existing + Project				Existing + Cumulative Projects			Existing + Cumulative Projects + Project				Sig Impact?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	Δ [e]	ADT	LOS	V/C	ADT	LOS	V/C	Δ [e]	
Lake Wohlford Road																
Valley Center Rd to Oakvale Rd	9,700 [f]	4,680	A	0.482	5,533	B	0.570	0.088	5,250	B	0.541	6,103	B	0.629	0.088	No
Valley Parkway																
El Norte Pkwy to Lake Wohlford Rd	43,500	29,700	C	0.683	30,508	C	0.701	0.018	29,790	C	0.685	30,598	C	0.703	0.019	No

Footnotes:

a. Capacities based on the *City of Escondido Roadway Classification* (See *Appendix C*).
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity ratio
e. Δ denotes a Project-induced increase in the Volume to Capacity (V/C) ratio.
f. County of San Diego "Light Collector w/Reduced Shoulder (2.2F)" capacity used.

10.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

10.1 Significance of Impacts

The traffic impacts of the proposed 898-ADT Lake Wohlford Dam Project do not exceed the significance thresholds published by the City of Escondido. ***No significant impacts are calculated.***

10.2 Mitigation Measures

The Project does not result in any significant impacts according to City of Escondido criteria. ***No mitigation measures are required.***

End of Report