



DRAFT

**Placer Parkway Corridor Preservation
Partially Revised Tier 1 Environmental Impact Statement/
Program Environmental Impact Report**

January 2009



**Prepared by
URS Corporation**



**for
South Placer Regional Transportation Authority
California Department of Transportation
Federal Highway Administration**



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PLACER PARKWAY CORRIDOR PRESERVATION
IN THE COUNTIES OF SUTTER AND PLACER, STATE OF CALIFORNIA
FROM STATE ROUTE 70/99 TO STATE ROUTE 65

PARTIALLY REVISED DRAFT TIER 1 ENVIRONMENTAL IMPACT STATEMENT/
PROGRAM ENVIRONMENTAL REPORT

Submitted Pursuant to: (State) Division 13, Public Resources Code
(Federal) 42 USC 4332(2)(c)

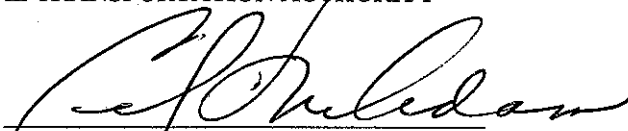
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and

THE STATE OF CALIFORNIA
Department of Transportation, and

SOUTH PLACER REGIONAL TRANSPORTATION AUTHORITY

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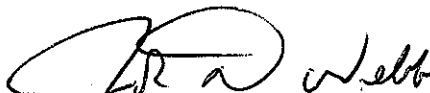
Date of Approval



Executive Director
South Placer Regional Transportation Authority

1-22-09


Date of Approval



Chief, Office of Environmental Services
California Department of Transportation, North Region
Responsible Agency CEQA/NEPA Technical Assistance to FHWA

1-22-09

Date of Approval



Acting Division Administrator
Federal Highway Administration

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Abstract

Abstract: The proposed action would select and preserve a corridor for the future construction of Placer Parkway—a new east-west roadway linking State Route (SR) 65 and SR 70/99. Potential benefits from future implementation include reduction of anticipated congestion on both the local and regional transportation system and advancement of economic development goals in southwestern Placer County and south Sutter County. Potential impacts from future implementation include effects to socioeconomic and community resources, farmlands, cultural resources, traffic and transportation, air quality, noise, hydrology, temporary construction impacts, and growth impacts.

Comments on this document are due by March 15, 2009, and should be sent to Celia McAdam at the above address.

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1.0 INTRODUCTION

1.1 PARTIALLY REVISED DRAFT TIER 1 EIS/EIR PROCESS

The National Environmental Policy Act (NEPA) requires that a lead agency supplement an Environmental Impact Statement (EIS) when there are significant new circumstances or information such that the agency considers should be included in order to meet the objectives of NEPA.

This Partially Revised Draft Tier 1 Environmental Impact Statement/Program Environmental Impact Report (hereafter referred to as the Partially Revised Draft Tier 1 EIS/EIR) serves as a supplement to the Draft EIS under NEPA and Federal Highway Administration (FHWA) regulations (40 Code of Federal Regulations [CFR] 1502.9; 23 CFR 771.130) and state CEQA Guidelines, and will be circulated for public review and comment as described below.

The California Environmental Quality Act (CEQA) requires that the lead agency evaluate and respond to comments as provided in CEQA guidelines Section 15088. Guidelines Section 15088.5, subdivision (f) (2), provides:

When the EIR [environmental impact report] is revised in part and the lead agency is recirculating only the revised chapters or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions or the earlier EIR that were revised and recirculated. The lead agency's request that reviewers limit the scope of their comments shall be included either within the text or the revised EIR or by an attachment to the revised EIR.

1.1.1 Public Review

This Partially Revised Draft Tier 1 EIS/EIR will be subject to review and comment by the public, as well as all responsible agencies and other interested parties, agencies and organizations for a period of no less than 45 days. This Partially Revised Draft Tier 1 EIS/EIR is available for review at the following address:

Placer County Transportation Planning Agency
299 Nevada Street, Auburn, CA 95603

This Partially Revised Draft Tier 1 EIS/EIR is also available for public review at the following locations:

Placer County Transportation Planning Agency
299 Nevada Street, Auburn, CA

Sutter County Planning Department
1130 Civic Center Blvd., Yuba City, CA

Placer County Planning Department
3091 County Center Drive, Auburn, CA

Sacramento County Planning Department
827 7th Street, Room 230, Sacramento, CA

Placer County Public Works Department
3091 County Center Drive, Auburn, CA

Roseville Public Library - Downtown
225 Taylor Street, Roseville CA

Placer County Library
350 Nevada Street, Auburn, CA

Roseville Public Library - Maidu
1530 Maidu Drive, Roseville CA

Placer County Library, Loomis
6050 Library Drive, Loomis, CA

Rocklin Library
5400 Fifth Street, Rocklin, CA

Sutter County Library, Main Branch
7504 Forbes Avenue, Yuba City, CA

Lincoln Library
590 Fifth Street, Lincoln, CA

Sutter County Library, Pleasant Grove Branch
3093 Howsley Road, Pleasant Grove, CA

Sierra College Library
5000 Rocklin Road, Rocklin, CA

Sutter County Library, Browns Branch
1248 Pacific Avenue, Rio Oso, CA

Sacramento County Library, North Natomas
2500 New Market Drive, Sacramento, CA

Sacramento County Public Library
828 I Street, Sacramento, CA

Sacramento County Library, North Highlands – Antelope
4235 Antelope Road, Antelope, CA

California State University
6000 J Street, Sacramento, CA

Copies can also be obtained electronically from the Placer County Transportation Planning Agency (PCTPA)'s project website at www.pctpa.net.

In accordance with Public Resources Code Section 21092, subdivision (b) (1), and the CEQA Guidelines Section 15150, subdivision (b), all documents and/or portions of documents incorporated into this Partially Revised Draft Tier 1 EIS/EIR by reference are also available for public inspection at the Placer County Transportation Planning Agency at the above address.

1.1.2 How to Submit Comments

As a member of the public or as a representative of a public agency, you may provide comments on the adequacy of this Partially Revised Draft Tier 1 EIS/EIR. Comments may be submitted to the PCTPA by the deadline, which is March 15, 2009.

Comments can be sent via regular mail to PCTPA, Attn: Celia McAdam, Executive Director, 299 Nevada St., Auburn, CA 95603, or via email to cmcadam@pctpa.net.

Scheduled Public Hearings: The public, as well as agencies and local jurisdictions, are also invited to comment on the Partially Revised Draft Tier 1 EIS/EIR at either of two public hearings:

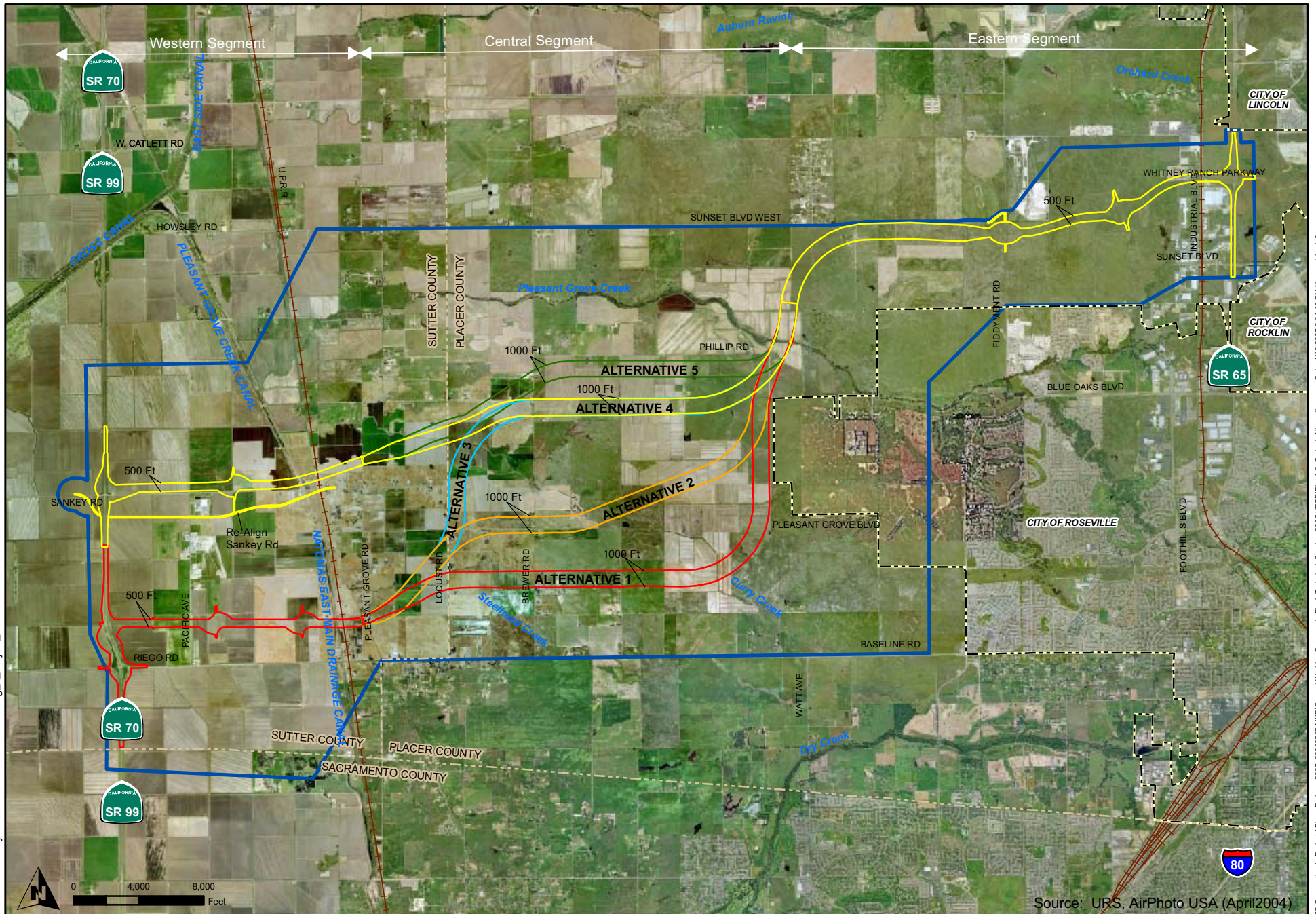
- **February 23, 2009 – 6:00 p.m.** at the Veterans Memorial Community Building, 1425 Veterans Memorial Circle in Yuba City, California 95993
- **February 25, 2009 – 10:45 a.m.** at the Placer County Board of Supervisors Chambers (The Domes), 175 Fulweiler Avenue, Auburn, California 95603

1.2 BACKGROUND

1.2.1 Project Description

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the South Placer Regional Transportation Authority (SPRTA) propose to select and preserve a corridor for the future construction of Placer Parkway, a new east-west roadway linking State Route (SR) 70/99 in Sutter County east to SR 65 in Placer County (see Figure 1, Project Alternatives). Placer Parkway is intended to reduce anticipated congestion on both the local and regional transportation system and to advance economic development goals in south Sutter County and southwestern Placer County.

Specifically, the action being considered and evaluated by FHWA, Caltrans and SPRTA is to select and preserve a 500- to 1,000-foot-wide corridor in the project study area, within which the future four- or six-lane Placer Parkway may be constructed. Five or six interchanges are proposed, depending on the corridor alignment alternative. Placer Parkway is intended to reduce anticipated congestion on both the local and regional transportation system and to advance economic development goals in south Sutter County and southwestern Placer County.



- Alternative 1
- Alternative 2
- Alternative 3
- Alternative 4
- Alternative 5
- County Boundary
- City Boundary
- Study Area Boundary



Tier 1 EIS/EIR

Project Alternatives

Figure 1
January 2009

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1.2.2 Tiering Concept

The planning for Placer Parkway involves two phases: (1) the present action, selection of a corridor (titled the Placer Parkway Corridor Preservation Project), and (2) the future selection of a precise alignment within the corridor and a decision whether or not to build the Parkway. If a build alternative is selected and pursued after the second phase, the ultimate Placer Parkway project would be constructed and operated. Throughout this document the term “Proposed Action” is used to describe the selection of a corridor to preserve. The document generally uses the term “Parkway” to mean the ultimate roadway, including construction and operation, except where context indicates otherwise. Each phase will be subject to its own environmental review, a process known as “tiered” environmental review under both state and federal law. The selection of a corridor is subject of the Tier 1 EIS/EIR.

1.2.3 Draft Tier 1 EIS/EIR

The Placer Parkway Corridor Preservation Draft Tier 1 Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was completed on June 29, 2007. It was circulated for public comment on July 2, 2007. The comment period ended on September 10, 2007. To the degree feasible, the Draft Tier 1 EIS/EIR reviewed the reasonably foreseeable environmental effects of the construction and operation of the Parkway. Selection of a more precise alignment within the corridor, and construction and operation of the Parkway, will be the subject of a later Tier 2 environmental document.

1.2.4 Access to Placer Parkway

As envisioned, Placer Parkway would include a corridor that is wider than what is needed for the proposed roadway, with lands on one or both sides of the facility called “no-development buffer zones,” which would be intended to accomplish the following:

1. Further a “parkway” concept by:
 - maintaining a visual open space concept and encouraging linkages to other open spaces along the corridor;
 - preserving open space and agricultural uses adjacent to the Parkway;
 - providing opportunities to preserve biological resources along the corridor; and
 - limiting future development along the Parkway from encroaching to the facility’s edge by maintaining it as a zone where development is either not permitted or is severely restricted.

2. Limit access to the Parkway, which would:
 - Preserve a high-speed facility, through preventing unplanned Parkway interchanges from being constructed by controlling the land required for such interchanges; and
 - Limit opportunities for growth inducement that might otherwise result from provision of access in areas not planned for growth.

It is intended that the no-development buffer zones would be owned and managed in the future to achieve these objectives. Since the value of the no-development buffer zones to maintain the parkway concept and limit access depends to some extent on the adjacent land uses, it may be appropriate to adjust the final

size and shape of the buffer based on Tier 2 analysis of the Parkway. It is anticipated that such adjustments are most likely to occur in parts of the Parkway near agriculturally designated land undergoing urban development. This determination would be based on performance standards on a case-by-case basis, depending on the land use needs of future approved development, and taking into account the primary objective of restricting future access to the Parkway.

1.2.5 Evolving Existing Conditions

The Draft Tier 1 EIS/EIR acknowledges that,

The dynamic existing planning environment in the study area, and the projected elapsed time until the Parkway would be constructed, if approved, is challenging in the context of preparing an environmental document that analyzes existing and future conditions.

...As with any large project planned over a long time, changes in conditions may occur during the preparation of the Tier 1 study, or between the draft and final versions of the Tier 1 EIS/EIR, as well as during the period between the Tier 1 and Tier 2 processes. The possibility of changes in the level of urban development is particularly high for Placer Parkway, due to the strong development pressure in the project vicinity.

While the project study area is predominantly undeveloped at this time, parts of the study area are within local General Plan designations that allow urban growth. In addition, numerous proposals for major new development projects in and around the study area are currently in various stages of the approval and entitlement process (see Figure 2, Planned/Proposed Development). The ultimate level of development, including the growth represented by these current project proposals, is addressed in the Tier 1 EIS/EIR in the Cumulative Scenario (Year 2040). This accounts for the cumulative impact of the Parkway and other reasonably foreseeable developments, including those now in the planning process of the local jurisdictions (Draft Tier 1 EIS/EIR page 3-10).

2.0 SUMMARY OF REVISIONS TO DRAFT TIER 1 EIS/EIR

2.1 REVISIONS TO EXECUTIVE SUMMARY

The Executive Summary, including Table ES-1, has been revised to reflect updated farmland classifications, as described in Section 3.0 below.

2.2 REVISIONS TO SECTION 2.7 – AGENCY PERMITS AND APPROVALS

This partially revised Draft Tier 1 EIS/EIR identifies a number of general plan amendments which will be prepared and processed following certification of the environmental document and approval of the project by SPRTA.

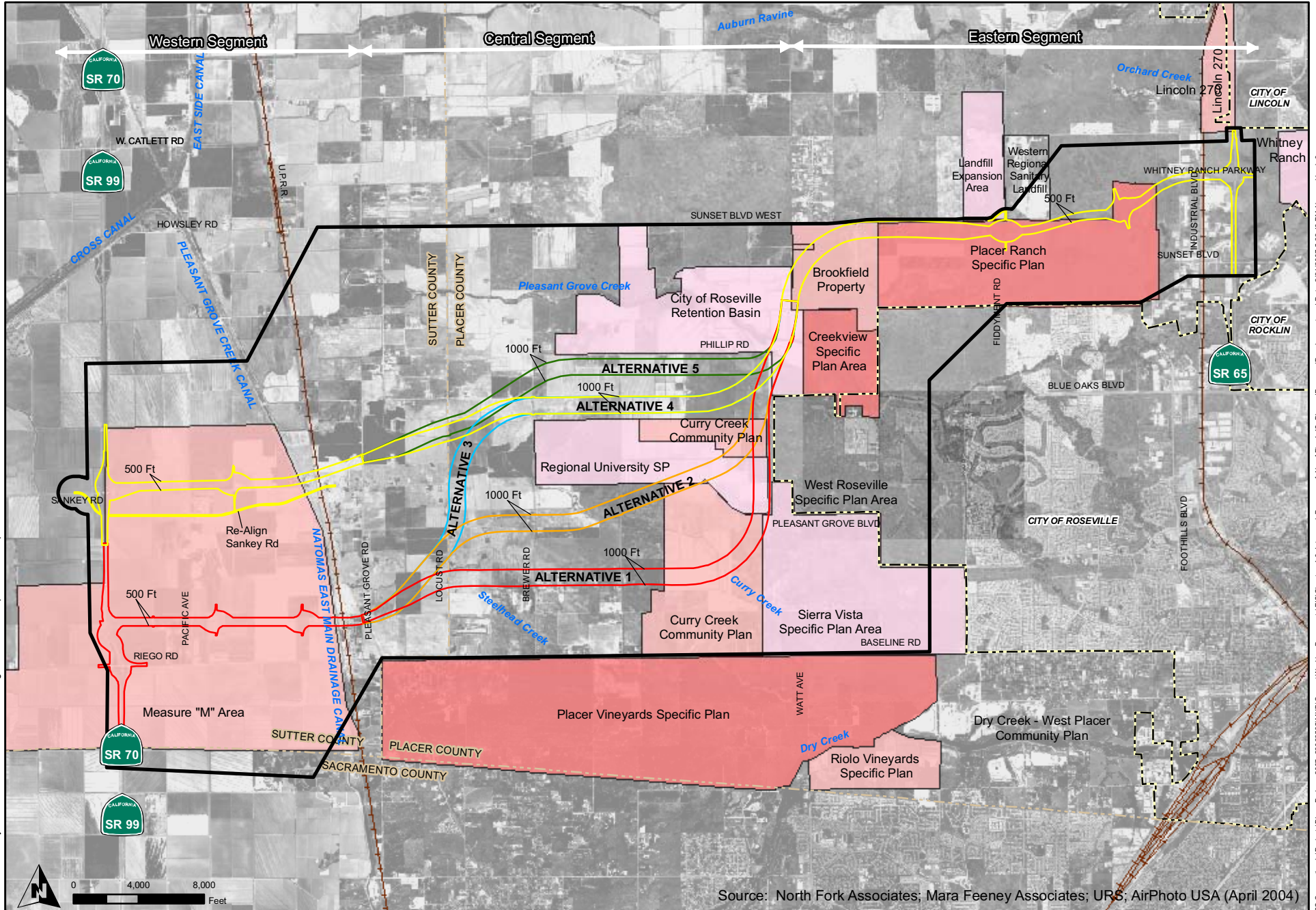
2.3 REVISIONS TO SECTION 4.1 – LAND USE

As a result of changes to farmland data described in Section 2.4 below, the Draft Tier 1 EIS/EIR Figure 4.1-4, Important Farmland in Relation to Designated Land Use, was also updated.

2.4 REVISIONS TO SECTION 4.4 – FARMLANDS

The Draft Tier 1 EIS/EIR included a Tier 1/Program level assessment of potential impacts on farmland associated with the Parkway. This assessment included a discussion of current classification of

12/23/08 ...vsahk\T\Placer Parkway 2009\A\DEIS-EIR Rev 2009\Fig_2_PlannedProposedDevelopment.tai



Source: North Fork Associates; Mara Feeney Associates; URS; AirPhoto USA (April 2004)

- Study Area Boundary
- City Boundary
- County Boundary
- Alternative 1
- Alternative 2
- Alternative 3
- Alternative 4
- Alternative 5
- Planned/Proposed Development



Tier 1 EIS/EIR

Planned / Proposed Development

Figure 2
January 2009

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**Revised Table ES-1
Summary of Potential Impacts from the Placer Parkway Alternatives**

Potential Impact*		2004					2020	2040	
		No-Build	Alternative 1 (Red)	Alternative 2 (Orange)	Alternative 3 (Blue)	Alternative 4 (Yellow)			Alternative 5 (Green)
For Tier 1 analysis, direct impacts assume all resources within a corridor would be affected. This is an extremely conservative assumption, which is likely to overstate impacts.									
Land Use	Land Use Conversion	No impact	1,918.43 acres	1,836.78 acres	1,863.56 acres	1,627.64 acres	1,623.47 acres	Not analyzed**	Qualitative analysis only
	Potentially Bisected Parcels	No impact	26	28	26	30	35	Not analyzed**	Qualitative analysis only
	Compatibility with Proposed Land Uses	No impact	Depends on future land use approvals	Depends on future land use approvals	Depends on future land use approvals	Depends on future land use approvals	Depends on future land use approvals	Not analyzed**	Qualitative analysis only
	Conflict with General Plan Policies	No impact	Unavoidable conflict with policies related to preservation of agricultural land	Unavoidable conflict with policies related to preservation of agricultural land	Unavoidable conflict with policies related to preservation of agricultural land	Unavoidable conflict with policies related to preservation of agricultural land	Unavoidable conflict with policies related to preservation of agricultural land	Unavoidable conflict with policies related to preservation of agricultural land	Not analyzed**
Socioeconomics	Number of Residential Communities Affected	No impact	1	0	0	1	1	Not analyzed**	Qualitative analysis only
	Number of Homes, Farmsteads Affected	No impact	4	4	3	7	10	Not analyzed**	Qualitative analysis only
	Number of Employment Centers Affected	No impact	1	1	1	2	2	Not analyzed**	Qualitative analysis only
Farmlands	Prime Farmland	No impact	68.5 195.07 acres	68.5 309.60 acres	68.62 265.20 acres	38.44 161.35 acres	38.65 168.09 acres	Not analyzed**	Qualitative analysis only
	Unique Farmland	No impact	89.99 167.87 acres	419.11 191.11 acres	421.54 203.26 acres	433.98 289.22 acres	530.82 388.69 acres	Not analyzed**	Qualitative analysis only
	Farmland of Statewide Importance	No impact	435.75 422 acres	466.70 464.13 acres	464.01 472.77 acres	302.23 305.90 acres	307.48 319.04 acres	Not analyzed**	Qualitative analysis only
	Farmland of Local Importance	No impact	<u>756.12 acres</u>	<u>592.79 acres</u>	<u>619.23 acres</u>	<u>569.44 acres</u>	452.9 acres	Not analyzed**	Qualitative analysis only
	Grazing Land	No impact	237.42 acres	<u>240.73 acres</u>	<u>240.77 acres</u>	<u>246.1 acres</u>	<u>248.5 acres</u>	Not analyzed**	Qualitative analysis only
	Williamson Act Land Affected	No impact	119.85 acres	243.70 acres	240.56 acres	240.62 acres	240.26 acres	Not analyzed**	Qualitative analysis only
Public Service and Utilities	Municipal Facilities Affected	No impact	108.5 acres City of Roseville Retention Basin	109 acres City of Roseville Retention Basin	100 acres City of Roseville Retention Basin	100 acres City of Roseville Retention Basin	96 acres City of Roseville Retention Basin	Not analyzed**	Potential encroachment into future Western Regional Sanitary Landfill expansion area
Visual and Aesthetics	Potential Level of Impact from Build Alternative	No impact	Moderate/High	Moderate/High	Moderate/High	Moderate	Moderate	Not analyzed**	Qualitative analysis only
Cultural Resources	Archaeological Resources	No impact	No identified impact	No identified impact	No identified impact	No identified impact	No identified impact	Not analyzed**	Qualitative analysis only
	Built Environment Resources	No impact	1 property and 3 potential properties	1 property and 3 potential properties	1 property and 3 potential properties	1 property	1 property	Not analyzed**	Qualitative analysis only
	Paleontological Resources	No impact	High sensitivity	High sensitivity	High sensitivity	High sensitivity	High sensitivity	Not analyzed**	Qualitative analysis only

* For the build alternatives, the greatest potential impact is shown in a shaded cell; the least potential impact is shown in **bold**. The greatest and least potential impacts are not identified for criteria resulting in identical impacts among all build alternatives.

** A quantitative analysis for this resource was performed for existing conditions only (2004) in order to determine potential environmental impacts under Existing Plus Project conditions.

Table ES-1 (Continued)
Summary of Potential Impacts from the Placer Parkway Alternatives

Potential Impact*	2004						2020	2040		
	No-Build	Alternative 1 (Red)	Alternative 2 (Orange)	Alternative 3 (Blue)	Alternative 4 (Yellow)	Alternative 5 (Green)				
For Tier 1 analysis, direct impacts assume all resources within a corridor would be affected. This is an extremely conservative assumption, which is likely to overstate impacts.										
Traffic and Transportation	Vehicle Miles of Travel (VMT)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	No-Build = 17,723,337 Alt 1 = 17,844,410 Alt 2 = 17,872,706 Alt 3 = 17,885,664 Alt 4 = 17,869,007 Alt 5 = 17,871,704	No-Build = 25,977,539 Alt 1 = 26,419,100 Alt 2 = 26,472,170 Alt 3 = 26,482,608 Alt 4 = 26,476,869 Alt 5 = 26,455,500	
	Level of Service Impacts	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	All Alternatives affect: • Portions of SR 70/99 • Portions of SR 65	All Alternatives affect: • Portions of SR 70/99 • Portions of SR 65 • Portions of Fiddymont Road • Portions of Sierra College Blvd • Portions of Valley View Parkway • Portions of Whitney Ranch Parkway	
	Vehicle Hours of Delay 3-hour a.m. and 3-hour p.m. Commute Periods	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	LOS D: No Build = 35,694 Alternative 1 = 34,206 Alternative 2 = 34,272 Alternative 3 = 34,409 Alternative 4 = 34,501 Alternative 5 = 34,382	LOS D: No Build = 100,775 Alternative 1 = 94,619 Alternative 2 = 95,077 Alternative 3 = 95,100 Alternative 4 = 95,493 Alternative 5 = 94,929
		Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	LOS E: No Build = 25,077 Alternative 1 = 23,783 Alternative 2 = 23,880 Alternative 3 = 23,992 Alternative 4 = 24,077 Alternative 5 = 23,951	LOS E: No Build = 81,200 Alternative 1 = 76,003 Alternative 2 = 76,450 Alternative 3 = 76,479 Alternative 4 = 76,885 Alternative 5 = 76,335
	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	LOS F2 ¹ No Build = 16,447 Alternative 1 = 15,448 Alternative 2 = 15,530 Alternative 3 = 15,617 Alternative 4 = 15,739 Alternative 5 = 15,588	LOS F2 ¹ No Build = 62,327 Alternative 1 = 57,974 Alternative 2 = 58,463 Alternative 3 = 58,473 Alternative 4 = 58,885 Alternative 5 = 58,351	

¹ LOS F2 is the added travel time for vehicles faced with 3 hours or more of LOS F conditions during the 3-hour a.m. and p.m. commute periods.

* For the build alternatives, the greatest potential impact is shown in a shaded cell; the least potential impact is shown in bold. The greatest and least potential impacts are not identified for criteria resulting in identical impacts among all build alternatives.

** A quantitative analysis for this resource was performed for existing conditions only (2004) in order to determine potential environmental impacts under Existing Plus Project conditions.

Revised Table ES-1
Summary of Potential Impacts from the Placer Parkway Alternatives

Potential Impact*	2004						2020	2040	
	No-Build	Alternative 1 (Red)	Alternative 2 (Orange)	Alternative 3 (Blue)	Alternative 4 (Yellow)	Alternative 5 (Green)			
For Tier 1 analysis, direct impacts assume all resources within a corridor would be affected. This is an extremely conservative assumption, which is likely to overstate impacts.									
Air Quality	Construction Emissions – ROG, NO _x , PM ₁₀	No impact	Exceeds FRAQMD and PCAPCD significance thresholds	Exceeds FRAQMD and PCAPCD significance thresholds	Exceeds FRAQMD and PCAPCD significance thresholds	Exceeds FRAQMD and PCAPCD significance thresholds	Exceeds FRAQMD and PCAPCD significance thresholds	N/A	N/A
	Operational Emissions-reactive organic gases (ROG)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Alts 1-5 exceed FRAQMD significance thresholds	Alts 1-5 exceed FRAQMD significance thresholds Alts 1-5 exceed PCAPCD significance thresholds
	Operational Emissions – carbon monoxide (CO)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Significance thresholds not exceeded	Significance thresholds not exceeded
	Operational Emissions – nitrogen oxide (NO _x)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Alts 1, 2, 3, 4, and 5 exceed FRAQMD significance thresholds	Alts 1-5 exceed FRAQMD significance thresholds Alts 2, 3, 4, and 5 exceed PCAPCD significance thresholds
	Operational Emissions – respirable particulate matter (PM ₁₀)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Significance thresholds not exceeded	Significance thresholds not exceeded
	Operational Emissions – sulfur dioxide (SO _x)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Significance thresholds not exceeded	Significance thresholds not exceeded
Noise and Vibration	Noise at Residential Units Exceeding Threshold (66 dBA)	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Alt 1 = 0 Alt 2 = 2 Alt 3 = 2 Alt 4 = 0 Alt 5 = 1	Alt 1 = 0 Alt 2 = 2 Alt 3 = 2 Alt 4 = 0 Alt 5 = 1
	Number of Roadways with projected increases in traffic noise > 12 dBA	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	No-Build = 1 Alt 1 = 1 Alt 2 = 1 Alt 3 = 1 Alt 4 = 1 Alt 5 = 1	No-Build = 15 Alt 1 = 11 Alt 2 = 11 Alt 3 = 11 Alt 4 = 10 Alt 5 = 10

* For the build alternatives, the greatest potential impact is shown in a shaded cell; the least potential impact is shown in bold. The greatest and least potential impacts are not identified for criteria resulting in identical impacts among all build alternatives.

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		No-Build	Alternative 1 (Red)	Alternative 2 (Orange)	Alternative 3 (Blue)	Alternative 4 (Yellow)	Alternative 5 (Green)		
For Tier 1 analysis, direct impacts assume all resources within a corridor would be affected. This is an extremely conservative assumption, which is likely to overstate impacts.									
Energy	Estimated Fuel Consumption	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	Similar to but less than 2020	No-Build = 717,544 gallons Alt 1 = 722,445 gallons Alt 2 = 723,591 gallons Alt 3 = 724,115 gallons Alt 4 = 723,441 gallons Alt 5 = 723,550 gallons	No-Build = 1,051,722 gallons Alt 1 = 1,069,599 gallons Alt 2 = 1,071,747 gallons Alt 3 = 1,072,170 gallons Alt 4 = 1,071,938 gallons Alt 5 = 1,071,072 gallons
Hazardous Materials/Waste	Number of RECs potentially located within alignment	No impact	3	3	3	4	4	Not analyzed**	Qualitative analysis only
Hydrology and Floodplains	New Impervious Area	No impact	745 acres	737 acres	740 acres	624 acres	622 acres	Not analyzed**	Qualitative analysis only
	Stream/Canal Crossings	No impact	16	12	11	10	10	Not analyzed**	Qualitative analysis only
	Area Affected Within 100-Year Floodplain	No impact	269 acres	302 acres	317 acres	370 acres	372 acres	Not analyzed**	Qualitative analysis only
Geology – Soils, Seismic	Soils or Geology Affected; Seismic or Geologic Factors	No impact	No major potential impacts	No major potential impacts	No major potential impacts	No major potential impacts	No major potential impacts	Not analyzed**	Qualitative analysis only
Water Quality	Watersheds Traversed	No impact	5	5	5	4	4	Not analyzed**	Qualitative analysis only
Biology	Riparian Habitat	No impact	5.9 acres	12.3 acres	4.8 acres	4.8 acres	4.9 acres	Not analyzed**	Qualitative analysis only
	Potential Giant Garter Snake Habitat	No impact	340.8 acres	340.8 acres	340.8 acres	268.2 acres	268.2 acres	Not analyzed**	Qualitative analysis only
	Potential Swainson's Hawk/White-Tailed Kite Nesting Habitat	No impact	6.4 acres	7.9 acres	4.6 acres	3.3 acres	3.6 acres	Not analyzed**	Qualitative analysis only
	Potential Swainson's Hawk Foraging Habitat	No impact	1,024.0 acres	952.3 acres	989.0 acres	863.5 acres	759.4 acres	Not analyzed**	Qualitative analysis only
	Potential Valley Elderberry Longhorn Beetle Habitat	No impact	1.9 acres	1.3 acres	1.2 acres	1.2 acres	1.2 acres	Not analyzed**	Qualitative analysis only
	Wetlands	No impact	35.8 acres	30.9 acres	32 acres	28.3 acres	28.0 acres	Not analyzed**	Qualitative analysis only
	Vernal Pool Complexes	No impact	122.7 acres	124.1 acres	127.6 acres	106.7 acres	124.0 acres	Not analyzed**	Qualitative analysis only

* For the build alternatives, the greatest potential impact is shown in a shaded cell; the least potential impact is shown in bold. The greatest and least potential impacts are not identified for criteria resulting in identical impacts among all build alternatives.

** A quantitative analysis for this resource was performed for existing conditions only (2004) in order to determine potential environmental impacts under Existing Plus Project conditions.

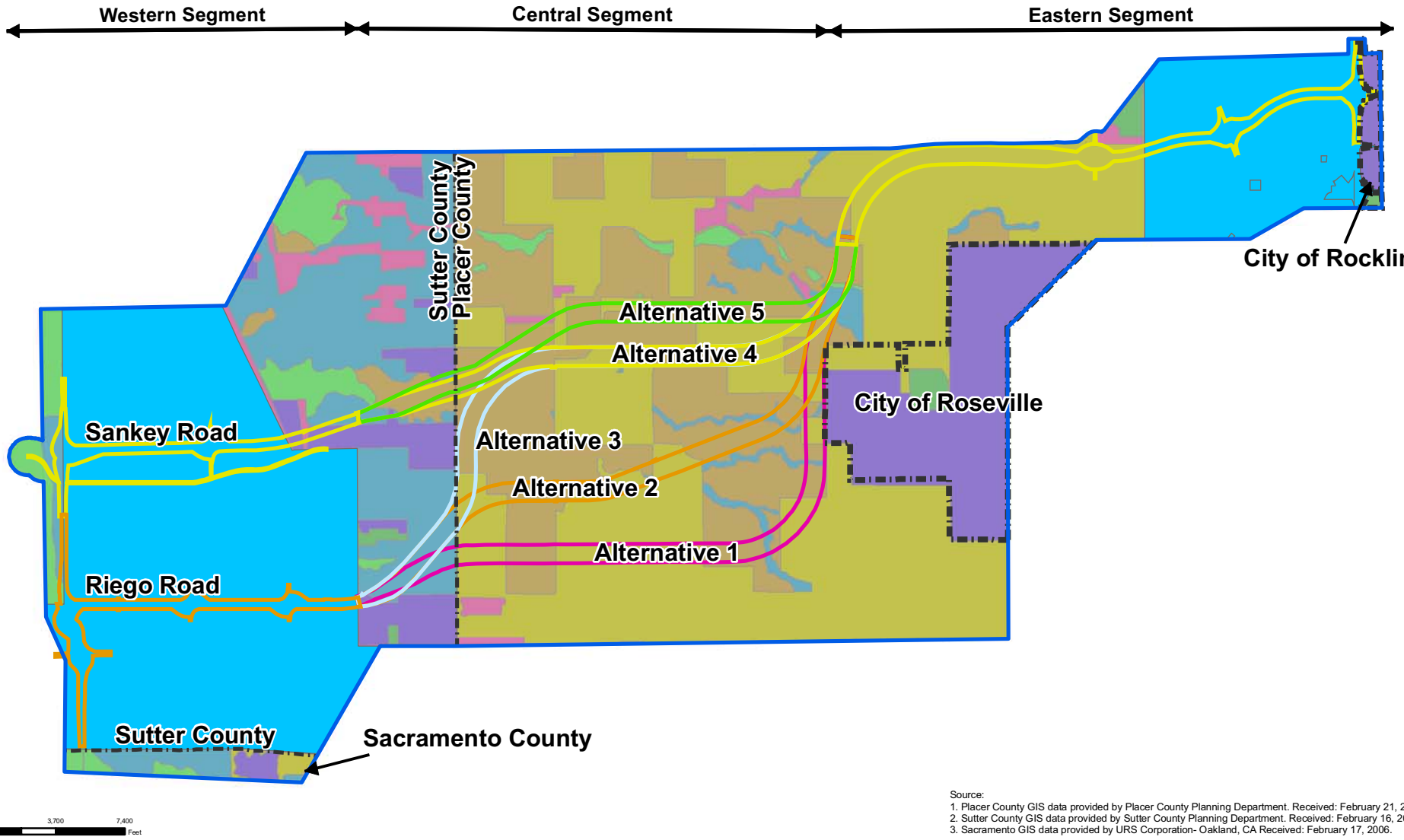
Revised Table ES-1
Summary of Potential Impacts from the Placer Parkway Alternatives

Potential Impact*	2004						2020	2040	
	No-Build	Alternative 1 (Red)	Alternative 2 (Orange)	Alternative 3 (Blue)	Alternative 4 (Yellow)	Alternative 5 (Green)			
For Tier 1 analysis, direct impacts assume all resources within a corridor would be affected. This is an extremely conservative assumption, which is likely to overstate impacts.									
Growth Inducement	No impact	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Would help facilitate planned and proposed developments in the region and is expected to influence the timing of development in the vicinity of its proposed interchanges, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development	Not analyzed**	Qualitative analysis only
Section 4(f) Analysis	4(f) Resources in the study area	No impact	RD 1000	RD 1000	RD 1000	RD 1000	RD 1000	Not analyzed**	Qualitative analysis only

* For the build alternatives, the greatest potential impact is shown in a shaded cell; the least potential impact is shown in **bold**. The greatest and least potential impacts are not identified for criteria resulting in identical impacts among all build alternatives.

** A quantitative analysis for this resource was performed for existing conditions only (2004) in order to determine potential environmental impacts under Existing Plus Project conditions.

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Source:
 1. Placer County GIS data provided by Placer County Planning Department. Received: February 21, 2006.
 2. Sutter County GIS data provided by Sutter County Planning Department. Received: February 16, 2006.
 3. Sacramento GIS data provided by URS Corporation- Oakland, CA Received: February 17, 2006.

Placer County Important Farmland

- Urban and Built Up Land
- Grazing Land
- Farmland of Local Importance
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Other Land

Sutter County Important Farmland

- Urban and Built Up Land
- Grazing Land
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Other Land

Sacramento County Important Farmland

- Grazing Land
- Farmland of Local Importance
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Other Land
- Other**
- Non-Agricultural Land



Tier 1 EIS/EIR

Important Farmland in Relation to Designated Land Use

Figure 4.1-4 (Revised)
 January 2009

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agricultural resources in the study area. Comments received on the Draft Tier 1 EIS/EIR suggested that the agricultural resources classification presented in the Draft Tier 1 EIS/EIR was incorrect, as it was based on inaccurate and outdated Farmland Mapping and Monitoring Program (FMMP) data. Research undertaken to evaluate these suggestions confirmed that the data upon which the Draft Tier 1 EIS/EIR agricultural resource classifications had been based was correct at the time the database was accessed, but had subsequently been superseded as a result of periodic updates to FMMP GIS data. The Draft Tier 1 EIS/EIR text was revised to reflect this current classification and revised text is presented below and underlined. All other text in Section 4.4 remained unchanged. The implementation of these revisions resulted in the alternative with the least total impacts on all categories of farmland changing from Alternative 4 to Alternative 5, and the greatest from Alternative 2 to Alternative 3.

2.5 REVISIONS TO SECTION 4.9.3.7 – GREENHOUSE GASES

The Draft Tier 1 EIS/EIR included a Tier 1/Program level assessment of greenhouse gases (GHG) based on the regulatory environment at the time the Draft Tier 1 EIS/EIR was published. Since that time additional regulations have come into effect in California which are relevant to GHG emissions and transportation planning. This Partially Revised Draft Tier 1 EIS/EIR includes a discussion of these new regulations and associated implications for the Parkway project.

REVISIONS TO CHAPTER 5 – CEQA EVALUATION

Section 5.13.1 of this chapter was revised to clarify that potential impacts on vernal pool could include both direct and indirect impacts. As a result of changes to farmland data described in Section 3.4, this Chapter was also updated to reflect the new information, including a change in the Environmentally Superior Alternative from Alternative 4 to Alternative 5.

NEW APPENDIX G – ADDITIONAL ANALYSES PREPARED FOR U.S. ENVIRONMENTAL PROTECTION AGENCY AND U.S. ARMY CORPS OF ENGINEERS

In the context of discussions relating to the Least Environmentally Damaging Practicable Alternative (the “LEDPA”), in November 2007 the U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Army Corps of Engineers (USCOE) asked additional questions related to the growth inducement potential and secondary and indirect impacts on biological resources beyond that contained in the Draft Tier 1 EIS/EIR. Their concerns focused on the inability of the project proponent, SPRTA, to *guarantee* that in the future, the proposed no-development buffer zones would not be reduced or that additional interchanges would not be constructed. SPRTA has no land use authority and cannot make such a guarantee.

Additional analysis was undertaken that included hypothetical buffer zone reductions and hypothetical interchanges that are not proposed by FHWA, Caltrans, or SPRTA, for the purpose of determining whether such actions would result in substantively different secondary and indirect impacts on biological resources. This information is provided to provide the results of the analysis to other agencies and to the public, in as transparent a method as possible. Additional analysis of cumulative impacts is also provided.

It should be stressed that buffer zone reductions and/or additional interchanges have not been and are not being proposed by FHWA or SPRTA as part of the Tier 1 process, and with the exception of a potential interchange with an extension of Watt Avenue, the need for additional interchanges have not been identified by any jurisdiction.

The analysis did not result in substantive changes in the analyses presented in the Draft Tier 1 EIS/EIR, and generally supported that document’s assertion that the more northerly corridor alignment alternatives

would result in less growth inducement potential and less secondary and indirect impacts on biological resources than would more southerly corridor alignment alternatives.

3.0 REVISIONS TO THE DRAFT TIER 1 EIS/EIR

In order to illustrate text changes, revisions that have been made to the Draft Tier 1 EIS/EIR are indicated using a system of text strikeout and underlining. Text that has been deleted is shown as strikeout and text that has been inserted is shown underlined.

3.1 REVISED EXECUTIVE SUMMARY

The Farmlands paragraph on page E-10 of the Draft Tier 1 EIS/EIR is revised as shown below. Table ES-1, Summary of Potential Impacts from the Placer Parkway Alternatives, is revised to reflect this information, and is presented in its entirety on pages 9 through 13.

Farmlands

The build alternatives would convert between 1,578,676.46 and 1,813,990.06 acres of farmland, comprising including Prime Farmland, Farmland of Statewide Importance, Local Farmland, ~~and Unique Farmland, and Grazing Land.~~ Alternative 4 5 (~~4 is deleted; 5 is added~~) would affect the least – approximately 1,578,676 acres. Alternative 23 would affect the most – approximately 1,813,990.06 acres. Each alternative would convert Williamson Act contracted lands, ranging from a minimum under Alternative 1 of 119.85 acres to a maximum under Alternative 2 of 243.7 acres.

3.2 REVISED SECTION 2.7 – AGENCY PERMITS AND APPROVALS

A new second paragraph is added, as follows:

Upon certification of the environmental document and approval of the project by SPRTA, the following General Plan amendments will be prepared and processed:

Amendments to Placer County General Plan

- Amend Circulation Plan Diagram for consistency with Placer Parkway's adopted corridor alignment alternative
- Amend Table 1-7, Functional Classification, to include Placer Parkway

Amendments to Sunset Industrial Area Plan

- Amend Circulation Diagram, Figure 2-1, for consistency with Placer Parkway's adopted corridor alignment alternative
- Amend Capital Improvement Program narrative on pages 2-1 and 2-2 to include Placer Parkway
- Amend narrative for post-2015 improvements on page 2-3 to include Placer Parkway

Amendments to Sutter County General Plan

- Amend General Plan for consistency with Placer Parkway's adopted corridor alignment alternative

3.3 REVISED SECTION 4.1 – LAND USE

As a result of updates to farmland data, described in Section 3.4 below, Figure 4.1-4, Important Farmland in Relation to Designated Land Use, was also revised and is included in this document.

3.4 REVISED SECTION 4.4 – FARMLANDS

The Draft Tier 1 EIS/EIR included a Tier 1/Program level assessment of potential impacts on farmland associated with the Parkway. This assessment included a discussion of current classification of agricultural resources in the study area. This classification is undertaken by the California Department of Conservation (DOC) Division of Land Resource Protection (DLRP) within the Farmland Mapping and Monitoring Program (FMMP). As part of the FMMP, agricultural resources are rated according to soil quality and irrigation status. These ratings are publicly available as maps and Geographic Information System (GIS) data.

Section 4.4.2.3 of the Draft Tier 1 EIS/EIR presented a description of agricultural resources in the study area based on classifications obtained from the Placer, Sutter, and Sacramento county databases, which were accessed in February 2006.

These databases were subsequently revised as a result of periodic updates to FMMP GIS data. These updates occur on an ongoing basis as the U.S. Department of Agriculture National Resources Conservation Service (NRCS), which provides FMMP data to the DLRP, continue to convert existing hard copy maps to digital format, a process which has been ongoing since 2003.

In order to ensure that the analysis of potential farmland impacts in the Draft Tier 1 EIS/EIR reflects most currently available information, this Partially Revised Draft Tier 1 EIS/EIR provides an updated analysis using the most current FMMP data. The most notable difference between data used for the Draft Tier 1 EIS/EIR and that used for this revised analysis was that several areas of farmland in Placer County that are currently classified as Farmland of Local Importance in Placer County had previously been classified as non-farmland based on data used for the Draft Tier 1 EIS/EIR. Section 4.4.3.3 of the Draft Tier 1 EIS/EIR was revised to reflect this current classification and revised text is presented below and underlined. Figures 4.4-1 and 4.4-2 were also revised to reflect this new information and are also included. All other text in Section 4.4 remained unchanged. The implementation of these revisions resulted in the alternative with the least total impacts on all categories of farmland changing from Alternative 4 to Alternative 5, and the alternative with the greatest total impacts changing from Alternative 2 to Alternative 3.

3.4.1 Revised Section 4.4.3.3 – Direct Impacts

Section 4.4.3.3 is revised as shown below.

The alternatives under evaluation involve land that is designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land as well as farmland that is under Williamson Act contracts.

No-Build Alternative

Under the No-Build Alternative, land for the Parkway would not be acquired and the Parkway would not be constructed. There would not be any impacts on farmland under the No-Build Alternative. Section 2.3.1 of the Draft Tier 1 EIS/EIR provides additional details of the No-Build Alternative.

Alternative 1 – the Red Alternative

Alternative 1 would impact approximately 1,587.87 ~~806.83~~ acres of farmland within the study area, including 357.14 ~~355.60~~ acres of Farmland of Statewide Importance, Prime Farmland, and Grazing Land in the Western Segment; 619.93 ~~422.64~~ acres of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land in the Central Segment, and

~~611.20 28.62~~ acres of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land in the Eastern Segment.

Alternative 1 has the potential to affect two properties that are currently under Williamson Act protection, although cancellation of these two contracts has been proposed as part of the Placer Ranch Specific Plan development process. As shown in Table 4.4-9 in the Draft Tier 1 EIS/EIR, 119.85 acres of land would be affected. Both of the affected properties lie within the Eastern Segment of Alternative 1. The Western and Central segments of Alternative 1 do not pass through land that is protected by the act.

Alternative 2 – the Orange Alternative

Alternative 2 would potentially impact ~~1,788.22 990.06~~ acres of farmland, ~~the most of any alternative~~. It would affect eight parcels and 243.7 acres of land currently under Williamson Act contract, all in Placer County. Farmland impacts in the Western and Eastern segments would be the same as described for Alternative 1. A total of ~~819.88 605.84~~ acres of all farmland categories would be impacted in the Central Segment. Alternative 2 would pass through six parcels in the Central Segment with 123.85 acres of contracted land.

Alternative 3 – the Blue Alternative

Alternative 3 would impact ~~1,814.18 965.10~~ acres of ~~important~~ farmlands within the study area, ~~which is the largest area of all alternatives~~. In addition, it would affect three parcels and 240.56 total acres of land currently under contract, all within Placer County. Alternative 3 farmland impacts in the Western and Eastern segments would be identical to those identified for Alternative 1. A total of ~~845.84 580.88~~ acres of all the farmland categories within the Central Segment would be affected, ~~except for Farmland of Local Importance~~. The Alternative 3 corridor alignment would pass through one parcel under contract in the Central Segment, affecting 120.71 acres of land.

Alternative 4 – the Yellow Alternative

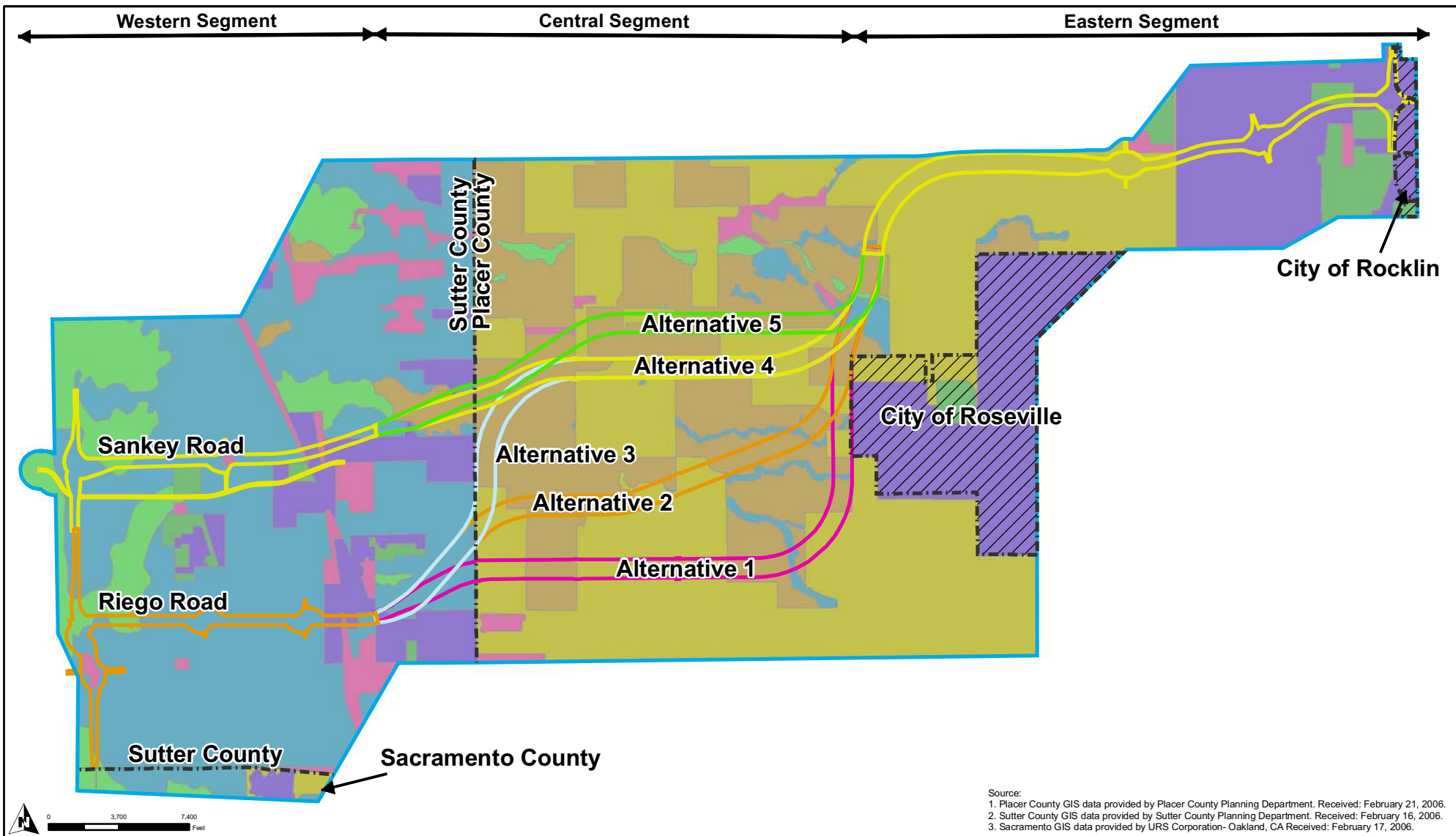
Alternative 4 would impact ~~the least amount of 1,590.20~~ acres of ~~important~~ farmland (~~792.46~~ acres) within the study area. This includes 304.~~5268~~ acres of impacts to Farmland of Statewide Importance, Prime Farmland, Farmland of Local Importance, and Grazing Land in the Western Segment, and a total of ~~674.48459.16~~ acres of all the farmland categories within the Central Segment ~~except for Farmland of Local Importance~~. Farmland affected in the Eastern Segment of Alternative 4 would be the same as for Alternative 1.

Alternative 4 would affect a total of four parcels and 240.62 acres of land currently under contract. The Sankey Road interchange in the Western Segment potentially would impact 0.06 acre of contracted land in Sutter County. Impacts in the Central Segment would be the same as for Alternative 3, and impacts in the Eastern Segment would be the same as Alternative 1.

Alternative 5 – the Green Alternative

Alternative 5 would impact ~~909.04~~ the fewest acres of farmland within the study area at 1,578.36 acres. This includes the same 304.~~5268~~ acres of impacts to Farmland of Statewide Importance, Prime Farmland, Farmland of Local Importance, and Grazing Land as in Alternative 4 in the Western Segment; a total of ~~662.64575.74~~ acres inclusive of all the farmland categories within the Central Segment ~~except for Farmland of Local Importance~~; and the same ~~611.2028.62~~ acres of Unique Farmland impacts in the Eastern Segment as in all the corridor alignment alternatives.

Alternative 5 would affect four parcels and 240.26 total acres of land currently under contract. The Western Segment impacts would be the same as for Alternative 4, and Eastern Segment impacts would be the same as Alternative 1. Alternative 5 passes through two parcels in the Central Segment, affecting 120.35 acres of contracted land.



Source:
 1. Placer County GIS data provided by Placer County Planning Department. Received: February 21, 2006.
 2. Sutter County GIS data provided by Sutter County Planning Department. Received: February 16, 2006.
 3. Sacramento GIS data provided by URS Corporation- Oakland, CA Received: February 17, 2006.

Placer County Important Farmland

- Urban and Built Up Land
- Farmland of Statewide Importance
- Grazing Land
- Unique Farmland
- Farmland of Local Importance
- Other Land
- Prime Farmland

Sutter County Important Farmland

- Urban and Built Up Land
- Farmland of Statewide Importance
- Grazing Land
- Unique Farmland
- Prime Farmland
- Other Land

Sacramento County Important Farmland

- Grazing Land
- Farmland of Statewide Importance
- Farmland of Local Importance
- Unique Farmland
- Prime Farmland
- Other Land



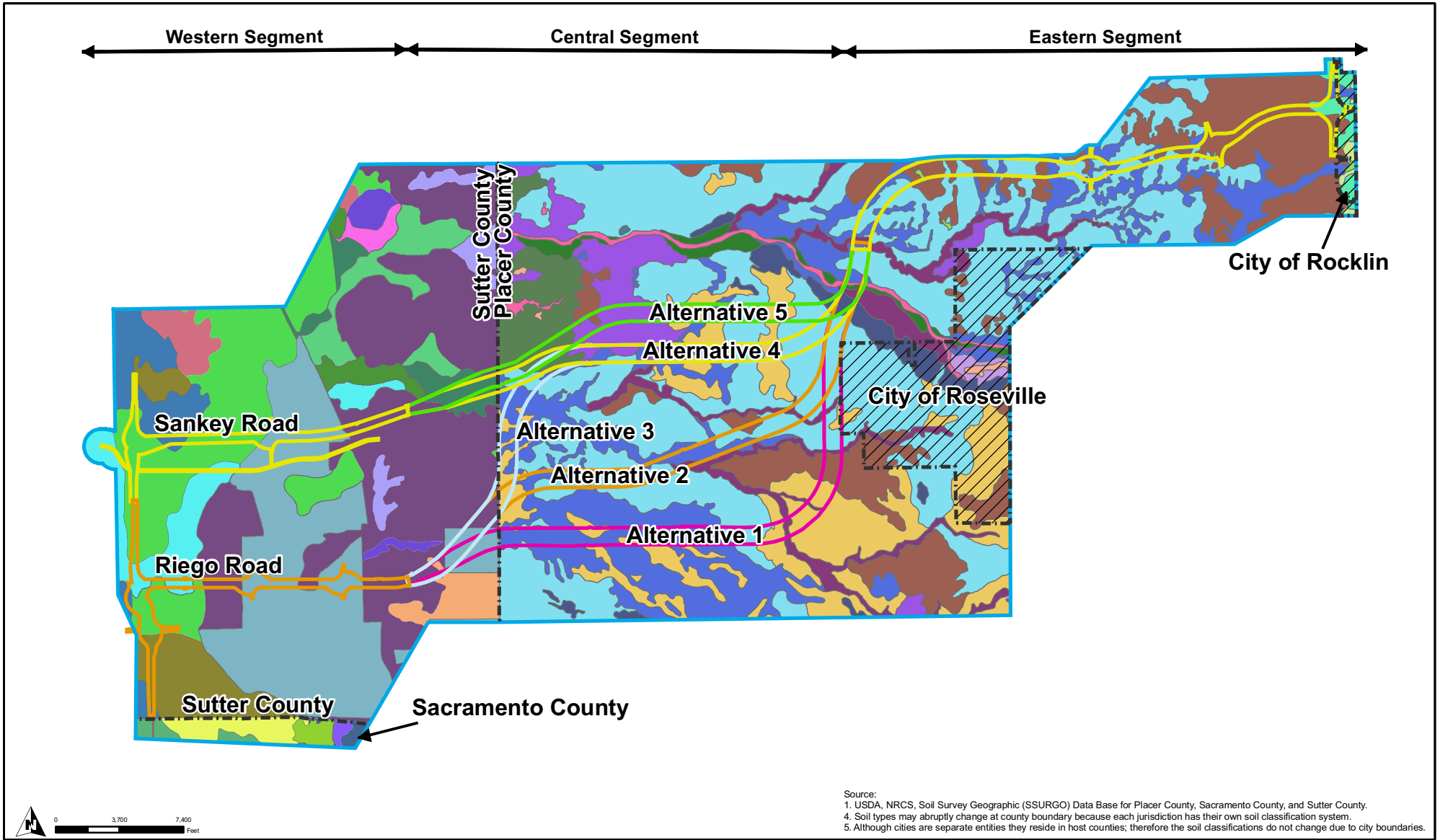
Tier 1 EIS/EIR

Important Farmland

**Figure 4.4-1
(Revised)**

January 2009

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Source:
 1. USDA, NRCS, Soil Survey Geographic (SSURGO) Data Base for Placer County, Sacramento County, and Sutter County.
 4. Soil types may abruptly change at county boundary because each jurisdiction has their own soil classification system.
 5. Although cities are separate entities they reside in host counties; therefore the soil classifications do not change due to city boundaries.

Placer County Soil Types		Sutter County Soil Types		Sacramento County Soil Types	
104-ALAMO-FIDDYMENT COMPLEX, 0 TO 5 PERCENT SLOPES	162-KILGALA LOAM	104-CAPAY SILTY CLAY, 0 TO 2 PERCENT SLOPES	130-GALT CLAY, FREQUENTLY FLOODED, 0 TO 2 PERCENT SLOPES	115-CLEAR LAKE CLAY, HARDPAN SUBSTRATUM, DRAINED, 0 TO 1 PERCENT SLOPES	152-GALT CLAY, 0 TO 2 PERCENT SLOPES
140-COMETA SANDY LOAM, 1 TO 5 PERCENT SLOPES	175-RAMONA SANDY LOAM, 2 TO 9 PERCENT SLOPES	105-CAPAY SILTY CLAY, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES	137-JACKTONE CLAY, 0 TO 2 PERCENT SLOPES	134-DIERSSSEN SANDY CLAY LOAM, DRAINED, 0 TO 2 PERCENT SLOPES	159-SAN JOAQUIN SANDY LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES
141-COMETA-FIDDYMENT COMPLEX, 1 TO 5 PERCENT SLOPES	181-SAN JOAQUIN SANDY LOAM, 1 TO 5 PERCENT SLOPES	109-CAPAY CLAY, HARDPAN SUBSTRATUM, 0 TO 2 PERCENT SLOPES	140-MARCUM CLAY LOAM, 0 TO 2 PERCENT SLOPES	161-JACKTONE CLAY, DRAINED, 0 TO 2 PERCENT SLOPES	160-SAN JOAQUIN-ARENDS-DUROCHREPTS COMPLEX, 0 TO 1 PERCENT SLOPES
142-COMETA-RAMONA SANDY LOAMS, 1 TO 5 PERCENT SLOPES	182-SAN JOAQUIN-COMETA SANDY LOAMS, 1 TO 5 PERCENT SLOPES	114-CLEAR LAKE CLAY, HARDPAN SUBSTRATUM, 0 TO 2 PERCENT SLOPES	142-MARCUM CLAY LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES	214-SAN JOAQUIN SILT LOAM, 0 TO 3 PERCENT SLOPES	194PL-XEROFUENTS, FREQUENTLY FLOODED
145-EXCHEQUER-ROCK OUTCROP COMPLEX, 2 TO 30 PERCENT SLOPES	193-XEROFUENTS, OCCASIONALLY FLOODED	123-COMETA LOAM, 0 TO 2 PERCENT SLOPES	158-SAN JOAQUIN SANDY LOAM, 0 TO 2 PERCENT SLOPES	24-WATER	
146-FIDDYMENT LOAM, 1 TO 8 PERCENT SLOPES	194-XEROFUENTS, FREQUENTLY FLOODED	128-EXETER SANDY LOAM, 0 TO 2 PERCENT SLOPES	159-SAN JOAQUIN SANDY LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES		
147-FIDDYMENT-KASEBERG LOAMS, 2 TO 9 PERCENT SLOPES	195-XEROFUENTS, HARDPAN SUBSTRATUM	129-GALT CLAY, 0 TO 2 PERCENT SLOPES	160-SAN JOAQUIN-ARENDS-DUROCHREPTS COMPLEX, 0 TO 1 PERCENT SLOPES		
154-INKS-EXCHEQUER COMPLEX, 2 TO 25 PERCENT SLOPES	198-WATER				



Tier 1 EIS/EIR	Soil Types in Placer, Sacramento, and Sutter Counties	Figure 4.4-2 (Revised)
		January 2009

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Comparison of Alternatives

All of the build alternatives would affect more than 100 acres of Williamson Act contracted land; therefore, all are considered to have an impact on Williamson Act contracted land. The potential conversion of farmland associated with the alternatives (ranging from 1,578.36 to 1,814.18 acres) is considered “substantial.”

Alternative 1 would potentially affect 1,587.87 acres of farmland and the least amount of Williamson Act protected property at 119.85 acres.

Alternative 2 would potentially affect 1,788.22 acres of farmland. However, this alternative would also impact the greatest amount of Williamson Act contracted land, 243.70 acres.

Alternative 3 would potentially affect 1,814.18 acres of farmland and 240.56 acres of Williamson Act land.

Alternative 4 would potentially affect 1,590.20 acres of farmland and would affect 240.62 acres of Williamson Act land.

Alternative 5 would potentially affect 1,578.36 acres of farmland and would affect 240.26 acres of Williamson Act land.

Revised Table 4.4-8 shows the amount of important farmland that potentially would be converted by each corridor alignment alternative and segment. Table 4.4-9 in the Draft Tier 1 EIS/EIR shows the amount of Williamson Act contracted lands that would be affected by each corridor alignment alternative. These project-related impacts to farmland are discussed by alternative below.

**Revised Table 4.4-8
Important Farmland Potentially Affected by Alignment Alternatives
(Acres)**

Placer Parkway Segment	Type of Farmland					
	Farmland of Local Importance	Farmland of Statewide Importance	Prime Farmland	Unique Farmland	Grazing Land	Total Farmland
Western Segment – Alternatives 1, 2, and 3	0	<u>275.24</u> <u>280.84</u>	<u>62.89</u> <u>62.88</u>	0	<u>19.01</u> <u>41.94</u>	<u>357.14</u> <u>355.60</u>
Western Segment – Alternatives 4 and 5	0	<u>238.63</u> <u>239.10</u>	<u>32.65</u> <u>32.64</u>	0	<u>33.24</u> <u>32.94</u>	<u>304.52</u> <u>304.68</u>
Central Segment – Alternative 1	<u>379.07</u> 0	<u>155.71</u> <u>141.19</u>	<u>5.62</u> <u>132.19</u>	<u>70.52</u> <u>139.25</u>	<u>8.61</u> <u>9.98</u>	<u>619.53</u> <u>422.61</u>
Central Segment – Alternative 2	<u>215.67</u> 1.58	<u>186.66</u> <u>183.32</u>	<u>5.69</u> <u>246.72</u>	<u>399.94</u> <u>162.49</u>	<u>11.92</u> <u>11.73</u>	<u>819.88</u> <u>605.84</u>
Central Segment – Alternative 3	<u>242.11</u> 0	<u>183.97</u> <u>191.96</u>	<u>5.73</u> <u>202.32</u>	<u>402.07</u> <u>174.64</u>	11.96	<u>845.84</u> <u>580.88</u>
Central Segment – Alternative 4	<u>192.32</u> 0	<u>58.80</u> <u>66.8</u>	<u>5.79</u> <u>128.71</u>	<u>414.51</u> <u>260.6</u>	<u>3.06</u> <u>3.05</u>	<u>674.48</u> <u>459.16</u>
Central Segment – Alternative 5	<u>75.78</u> 0	<u>64.05</u> <u>79.91</u>	<u>6.00</u> <u>135.45</u>	<u>511.35</u> <u>360.07</u>	<u>5.46</u> <u>.31</u>	<u>662.64</u> <u>575.74</u>
Eastern Segment – All Alternatives	<u>377.12</u> 0	<u>4.80</u> 0	0	<u>19.47</u> <u>28.62</u>	<u>209.81</u> 0	<u>611.20</u> <u>28.62</u>

Source: DOC FMMP-2002 data for Placer County and 2004 data for Sutter County; and California Spatial Information Library GIS database.

3.4.2 Revised Section 4.4.3.5 – Cumulative Impacts (Farmlands)

Section 4.4.3.5 is revised as shown below.

No-Build Alternative

Under the No-Build Alternative (see Section 2.3.1 of the Draft Tier 1 EIS/EIR), land for the Parkway would not be acquired and the Parkway would not be constructed. There would not be any cumulative impacts on farmlands under the No-Build Alternative.

Alternatives 1 Through 5

Potential adverse impacts on farmlands associated with the Parkway could contribute to cumulative impacts associated with planned and proposed development in the study area. The combined effects of farmland conversion and Williamson Act contract cancellation or nonrenewal could increase adverse impacts associated with individual projects, through the loss of agricultural resources or support services and increasing conflicts with urban development. All five alternatives would cross the Central Segment in a generally east-west direction, potentially intensifying the farmland fragmentation impacts and agricultural viability of farms affected by existing and planned high capacity power lines in the western portion of the Central Segment, since these facilities are generally aligned in a north-south direction and can impede agricultural activities such as rice seeding or crop dusting.

Depending on the alternative, the project could impact between ~~1,578.36 and 1,814.18~~ 792.46 and ~~990.06~~ acres of farmland and between 119.85 and 243.70 acres of Williamson Act contracted land. As shown in ~~on~~ Revised Table 4.4-10, other anticipated urban development and roadway projects (excluding the Parkway) in the study area would convert an additional 5,268.92 acres of Farmland of Statewide Importance, 5,865.78 acres of Farmland of Local Importance, 817.19 acres of Prime Farmland, 2,499.51 acres of Unique Farmland, and 1,301.14 acres of Grazing Land ~~5,203 acres of Farmland of Statewide Importance, 1,429 acres of Prime Farmland, 6,687 acres of Unique Farmland, and 250 acres of Grazing Land.~~ The converted farmland would also include nearly 717 acres of Williamson Act contracted land within Sutter and Placer counties, as shown in Table 4.4-11 in the Draft Tier 1 EIS/EIR.

**Revised Table 4.4-10
Cumulative Impacts to Farmland
(Acres)**

Type of Farmland	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Cumulative Projects (excluding Placer Parkway)
Farmland of Local Importance	<u>756.19</u> 0	<u>592.79</u> 1.58	<u>619.23</u> 0	<u>569.44</u> 0	<u>452.9</u> 0	<u>5,865.78</u> 0
Farmland of Statewide Importance	<u>435.75</u> <u>425.35</u>	<u>466.70</u> <u>464.24</u>	<u>464.01</u> <u>472.77</u>	<u>302.23</u> <u>305.90</u>	<u>307.48</u> <u>349.04</u>	<u>5,268.92</u> <u>5,203.00</u>
Prime Farmland	<u>68.51</u> <u>495.90</u>	<u>68.58</u> <u>309.46</u>	<u>68.62</u> <u>265.20</u>	<u>38.44</u> <u>45.35</u>	<u>38.65</u> <u>468.09</u>	<u>817.19</u> <u>1,429.00</u>
Unique Farmland	<u>89.99</u> <u>468.69</u>	<u>419.41</u> <u>190.70</u>	<u>421.54</u> <u>174.64</u>	<u>433.98</u> <u>289.22</u>	<u>530.82</u> <u>388.69</u>	<u>2,499.51</u> <u>6,687.00</u>
Grazing Land	<u>237.43</u> <u>22.28</u>	<u>240.74</u> <u>23.83</u>	<u>240.78</u> <u>23.87</u>	<u>246.11</u> <u>35.99</u>	<u>248.51</u> <u>32.25</u>	<u>1,301.14</u> <u>250.00</u>
Total of all types of Farmland	<u>1587.87</u> <u>806.83</u>	<u>1,788.22</u> <u>990.06</u>	<u>1,814.18</u> <u>936.48</u>	<u>1,590.20</u> <u>792.46</u>	<u>1,578.36</u> <u>908.04</u>	<u>15,752.54</u> <u>13,569.00</u>
Total for Cumulative Projects, including Placer Parkway	<u>17,340.41</u> <u>14,375.83</u>	<u>17,540.76</u> <u>14,559.06</u>	<u>17,566.72</u> <u>14,505.48</u>	<u>17,342.74</u> <u>14,245.46</u>	<u>17,330.90</u> <u>14,477.04</u>	N/A

Source: URS and NFA GIS database, with NFA data analysis

3.5 REVISED SECTION 4.9.3.7 – GREENHOUSE GAS EMISSIONS

The following text is additional information inserted at the end of Section 4.9.3.7.

2008 Update to Greenhouse Gases

Regulatory Background

California's major initiatives for reducing climate change or greenhouse gas (GHG) emissions were summarized in the Draft Tier 1 EIS/EIR. These include Assembly Bill (AB) 32 (signed into law 2006) and a 2005 Executive Order (S-03-05). These efforts aim at reducing GHG emissions to 1990 levels by 2020. This represents a reduction of about 25 percent, and with an 80 percent reduction below 1990 levels being required by 2050. The main strategies for making these reductions are outlined in a document produced by the California Air Resources Board (CARB) called the Scoping Plan.

This section summarizes additional laws and implementation measures since the Draft Tier 1 EIS/EIR was distributed for public review, to provide additional background on the issue of GHG emissions and actions to reduce GHG emissions. This information is focused on the transportation-related aspects as relevant to Placer Parkway; other aspects of these laws, policies, guidance documents and regulations are not discussed.

Senate Bill 97

Senate Bill (SB) 97 became effective on January 1, 2008, and requires the Office of Planning and Research to prepare CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009, and the Resources Agency to adopt the guidelines on or before January 2010.

Senate Bill 375

On September 30, 2008, Governor Schwarzenegger signed into law SB 375, which requires additional coordination between transportation planning and land use planning. SB 375 directs CARB to develop regional greenhouse gas emission reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. CARB will also work with California's eighteen metropolitan planning organizations to align their regional transportation, housing and land-use plans and prepare a "sustainable communities strategy" to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction targets (CARB, 2008a).

Scoping Plans

CARB is the lead agency for implementing AB 32, which set the major milestones for establishing the program. AB 32 requires the CARB to prepare a Scoping Plan containing the main strategies that will be used to achieve reductions in GHG emissions in California. On June 26, 2008 CARB staff presented the initial draft of the AB 32 Scoping Plan to its Board for review. The Scoping Plan to be presented to the CARB for adoption in December 2008 has now been released (October 2008).

Relative to transportation, the Scoping Plan includes nine measures or recommended actions. Several of these are related to vehicle GHG, fuel, and efficiency measures and would be implemented statewide rather than on a project by project basis. The one recommended action relevant to Placer Parkway is measure T-3, Regional Transportation-Related Greenhouse Gas Targets. This measure relies on SB 375 implementation to reduce GHG emissions from passenger vehicles. SB 375 references the regional "blueprint" process to prepare land use allocations in the regional transportation plan, as a process to build upon in developing the sustainable communities strategy required by SB 375.

The measures in the Scoping Plan, once approved by the CARB, will be developed into regulations, with more detail and specific mechanisms, over the next two years. Measures will be developed and adopted through the normal rulemaking process, and will be in place by 2012. Under SB 375, the regional GHG emission reduction targets are to be in place by September 30, 2010, with a draft due to each region no later than June 30, 2010.

CEQA Thresholds for GHG Impacts

At the time the Draft Tier 1 EIS/EIR was distributed, there was no statewide, or even regionally adopted threshold for determining the significance of GHG emissions from a project. This has not changed and no new threshold is included here.

Several threshold identification efforts are underway by various agencies, in addition to the Office of Planning and Research effort to comply with SB 97. At the time of publication of this Recirculated document, no regional or statewide threshold has been adopted.

CARB has developed a *Preliminary Draft Staff Proposal Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*, October 24, 2008. This preliminary threshold addresses industrial and residential/commercial projects; a preliminary threshold for transportation projects is not available at this time. The preliminary threshold describes the CARB staff belief that zero thresholds are not mandated, but that “any non-zero threshold must be stringent enough to make substantial contributions to reducing the State’s GHG emissions peak” (CARB, 2008b, page 4) and to contribute to meeting interim and long-term emissions reductions targets.

To assist lead agencies with evaluating the significance of GHG emissions, the California Air Pollution Control Officer’s Association prepared a “white paper” reviewing policy choices, analytical tools, and mitigation strategies (CAPCOA, 2008). This paper considers the application of potential thresholds and offers three alternative programmatic approaches towards determining whether greenhouse gas emissions are significant.

Local Air Districts

The proposed project lies within both the Placer County Air Pollution Control District (PCAPCD) and the Feather River Air Quality Management District (FRAQMD). The PCAPCD is currently developing its own climate change guidelines, which are expected within the next year. The FRAQMD does not currently have climate change guidelines.

Climate Change/Greenhouse Gases Impacts

The Draft Tier 1 EIS/EIR included a preliminary quantification of GHG operational impacts of the project (see page 4.9-29 and the Air Quality Technical Memorandum, pages 6-6 – 6-7 and 7-8). As explained in the Draft Tier 1 EIS/EIR, due to the Tier 1 nature of available information, only limited data was available. The analysis represents an overestimate of GHG emissions due to several factors, including the fact that information was not available to calculate the emissions reductions due to the decrease in travel time, faster traveling speed, and less congested roadways (reduction in vehicle hours traveled) with the project. The Draft Tier 1 EIS/EIR evaluated project impacts based on an assessment of the project’s compliance with applicable regional planning and air quality policies. Placer Parkway is included in the Regional Transportation Plan, and that plan has been determined to conform with the State Implementation Plan for Clean Air Act conformity.

The impact analysis is not being updated as part of this document because the document is still at a Tier 1 level of detail and no additional information is available that would change the prior calculations. Further calculations will be conducted in the Tier 2 analysis.

The Proposed Project and Regional Planning

The Sacramento Area Council of Governments (SACOG) has developed the Sacramento Region Blueprint Project, which is a planning tool to predict how current land use decisions will affect the development of Sacramento area communities by the year 2050. It is also a vision for growth that promotes compact, mixed-use development and more transit choices as an alternative to low density development.

The Blueprint Project involved numerous public workshops with local government staff and elected officials to produce two development projections: a Base Case and a Preferred Blueprint Scenario. The Base Case is a projection of what the Sacramento area would look like in 2050 if current land use plans and decisions were carried out. The Preferred Blueprint Scenario depicts a way for the region to grow using “smart growth” principles, which include compact development, mixed-use development, and a variety of transportation choices. These methods of development would all serve to decrease the amount of automobile travel, alleviating congestion and decreasing emissions. The transportation sector is by far the biggest contributor to greenhouse gas emissions in the state.

The Preferred Blueprint Scenario is part of SACOG’s Metropolitan Transportation Plan for 2035, the long-range transportation plan for the six-county region. It also serves as a framework to guide local government in growth and transportation planning through 2050. The Preferred scenario included transportation projects that would still fit in with the “smart growth” vision of the Blueprint Project. The Placer Parkway project is included in this Preferred Scenario.

It would be speculative at this point to make assumptions about the regional GHG targets to be set in accordance with SB 375. But, given SB 375’s reference to the blueprint planning process, an emphasis that is continued in the Scoping Plan, it is expected that the targets and sustainable community strategy for the region would either rely on, or build upon the SACOG Preferred Blueprint Scenario. The Preferred Scenario incorporates smart growth and energy efficient community principles, and the proposed project is included in this Preferred Scenario. Therefore, the Parkway project is expected to be consistent with regional plans and policies designed to accommodate population growth in a carbon efficient way, as stated in the Scoping Plan on page C-75.

3.6 REVISED CHAPTER 5 – CEQA EVALUATION

3.6.1 Revised Section 5.3.1 – Significant and Unavoidable Impacts (Farmlands)

The first paragraph of Section 5.3.1 is revised as shown below.

Farmland Conversion

The project would convert between ~~1,578,792.46~~ (Alternative 4 ~~5~~) (*4 is deleted; 5 is added*) and ~~1,813,990.06~~ (Alternative ~~23~~) acres of farmland, depending on the alternative selected (see Revised Table 4.4-8). This would be a significant and unavoidable impact of the project because this is a substantial amount of farmland conversion, and converting substantial amounts of farmland is inconsistent with state and county goals and policies relative to the importance of maintaining farmland resources. Two strategies for mitigation of farmland impacts are provided in Section 4.4.4.1 of the Draft Tier 1 EIS/EIR. Mitigation Strategy No. 1 would provide full replacement of the agricultural land lost for

the Parkway, and Mitigation Strategy No. 2 could also provide full replacement via agricultural easements administered by land trusts or other non-profit entities.

3.6.2 Revised Section 5.13.1 – Significant and Unavoidable Impacts (5.13 Biological Resources)

The third paragraph of Section 5.13.1 is revised as shown below.

Vernal Pools and Wetlands

Vernal pools and other federally protected wetlands would be significantly affected by each of the proposed build alternatives. The area of habitat that is within each of the corridor alignment alternatives is presented in Table 4.14-4, and range from a high of 167.3 acres under Alternative 2 to a low of 137.8 acres under Alternative 4. In addition, vernal pool wetland features adjacent to the project corridor could be indirectly impacted as described in Section 4.14.3.4. Mitigation for direct and indirect impacts to vernal pools and other wetlands would be directed by principles set by the Placer County Conservation Plan (if implemented), and would include avoidance, minimization, or mitigation through in-lieu fee payment or acquisition of conservation lands. Implementation of these mitigation strategies would reduce non-vernal pool wetland impacts to a less-than-significant level.

Mitigation for vernal pool impacts associated with the Placer Parkway project (with or without the PCCP) would have two components: (1) habitat preservation, and (2) habitat creation. Habitat preservation in Placer County is complicated by the lack of habitat available that has not already been designated for conservation or development. Therefore, preservation in Placer County might not be possible if there are not suitable lands that can be acquired. If it is necessary to direct vernal pool preservation efforts outside of Placer County it may be difficult to satisfy the mitigation requirements because the preservation would not meet the goals of the USFWS recovery plan for vernal pool species or the goals of the PCCP. Habitat creation in Placer County is possible, but creating habitat that meets the same functions as the affected habitat could be difficult. Vernal pools rely on a close relationship between upland habitats and small-scale hydrologic conditions. If a site does not have the right subsurface conditions (a seasonally perched groundwater table over a hardpan or claypan), it may be difficult to achieve the appropriate duration of ponding and therefore the vernal pool flora and aquatic fauna may not become established. Much of the land that is potentially available for vernal pool creation in western Placer County has been cultivated in the past which often disrupts the topography and the subsurface hydrology. To the extent that replacement, re-creation, or restoration of vernal pools would be feasible, this impact would be reduced. Implementation of the mitigation strategies would substantially lessen the impact of the loss of vernal pool wetlands. However, because the mitigation strategies do not guarantee replacement of the affected onsite vernal pools, SPRTA has determined that the impact would remain significant and unavoidable.

3.6.3 Revised Section 5.18 – Cumulative Impacts

The fourth paragraph of Section 5.18 is revised as shown below. The three paragraphs preceding it are provided here for context, below.

Information regarding cumulative impacts is found in each section of Chapter 4 of the Draft Tier 1 EIS/EIR, as well as in each Technical Study and Memorandum referenced above.

Chapter 3 characterizes the 2040 cumulative scenario in the study area against which potential cumulative environmental impacts have been evaluated. Each of the technical analysis sections in Chapter 4 includes a discussion of potential cumulative impacts associated with the project. This method of analysis satisfies both NEPA and CEQA requirements to evaluate the proposed project's contribution to the effect on the environment caused by the accumulation of past, present, and

reasonably foreseeable projects. The discussion below presents a summary of these impacts and makes a conclusion pursuant to CEQA as to the significance of these impacts; impacts that were not cumulatively significant are not discussed.

Land Use and Farmland

The combined effects of farmland conversion and Williamson Act contract cancellation or nonrenewal could increase adverse impacts associated with individual projects, through the loss of agricultural resources or support services and increasing conflicts with urban development. This would be a cumulatively significant impact. All five alternatives would cross the Central Segment in a generally east-west direction, potentially intensifying the farmland fragmentation impacts and agricultural viability of farms affected by existing and planned high-capacity power lines in the western portion of the Central Segment, since these facilities are generally aligned in a north-south direction and can impede agricultural activities such as rice seeding or crop dusting.

As shown on Revised Table 4.4-10 in Section 4.4, Farmlands, it is estimated that other anticipated urban development and roadway projects in the study area would convert ~~5,269~~⁰³ acres of Farmland of Statewide Importance, ~~817,429~~ acres of Prime Farmland, ~~2,499,687~~ acres of Unique Farmland, and ~~1,301,250~~ acres of Grazing Land. The converted farmland would also include nearly 717 acres of Williamson Act contracted land within Sutter and Placer counties, as shown in Table 4.4-11 in Section 4.4. Depending on the alternative, the project could impact between ~~1,578~~ ^{676.46} (Alternative 5) and ~~1,813,990.06~~ (Alternative 3) acres of farmland and between 119.85 and 243.70 acres of Williamson Act contracted land. This could represent an incremental contribution to the cumulative conversion of designated farmland. This would be a significant cumulative impact of the project.

3.6.4 Section 5.19 – Environmentally Superior Alternative

The introductory text of Section 5.19 is not revised; it is included to provide context for the revisions to Sections 5.19.3 and 5.19.4, below.

To determine the environmentally superior alternative, all alternatives were evaluated with respect to their ability to avoid or substantially lessen significant environmental effects or provide meaningful differences in less-than-significant impacts, and their ability to meet the purpose and need for the project.

This analysis evaluates the No-Build Alternative, followed by the build alternatives. Build alternatives are considered in two ways. First, system-wide impacts—traffic, air quality, noise and energy—are evaluated. These are impacts that are a function of traffic movements, including vehicles miles traveled and vehicle hours of delay attributable to an alternative by virtue of where it connects to the State Routes and where other interchanges would occur. Such impacts have a broader impact that can be identified within a specific geographic segment, and extend beyond the project study area.

Second, the analysis considers impacts on environmental resources by geographic segment, where such impacts can be quantified. This is useful because it provides a clear focus on differences among alternatives: there are two alignments in the Western Segment, five alignments in the Central Segment, and one alignment in the Eastern Segment. This segment analysis therefore focuses on the differences between a SR 70/99 connection one-half mile north of Riego Road or at Sankey Boulevard, and differences among alternatives in the Central Segment.

3.6.5 Revised Section 5.19.3 – Impacts of Build Alternatives by Segment

The third paragraph of Section 5.19.3, Central Segment, on page 5-33 and Table 5-1 are revised as shown below.

Several significant unmitigable impacts in the Central Segment differentiate the build alternatives. Alternatives 1, 2, 3, 4, and 5 would convert similar amounts of farmland in the Central Segment to transportation uses, ranging from 620 acres (Alternative 1) to 6743 acres (Alternative 4) from 672 to 903 acres of farmland to transportation uses, with Alternatives 4 and 5 converting the least (677 and 672 acres, respectively) and Alternative 1 converting the most (903 acres). Alternatives 2 and 3 would convert the most, 820 and 846 acres, respectively. Effects on farmland in the Central Segment by alternative are shown on Revised Table 5-1. Overall, Alternatives 1 and 4 would have the least impacts on farmlands in the Central Segment, followed by Alternative 5.

**Revised Table 5-1
Important Farmlands Affected in the Central Segment**

Alternative	Type of Important Farmland Affected (acres)						
	Farmland of Local Importance	Farmland of Statewide Importance	Prime Farmland	Unique Farmland	Grazing Land	Total Farmland	Williamson Act Lands
1	<u>379.07</u>	<u>155.71</u> 444	<u>5.62</u> 132	<u>70.52</u> 139	<u>8.61</u>	<u>619.53</u>	0
2	<u>215.67</u>	<u>186.66</u> 483	<u>5.69</u> 247	<u>399.9</u> 162	<u>11.92</u>	<u>819.84</u>	124
3	<u>242.11</u>	<u>183.97</u> 492	<u>5.73</u> 202	<u>402</u> 175	<u>11.96</u>	<u>845.77</u>	121
4	<u>192.32</u>	<u>58.8</u> 67	<u>5.79</u> 129	<u>414</u> 261	<u>3.06</u>	<u>673.97</u>	121
5	<u>75.78</u>	<u>64.05</u> 80	<u>6.0</u> 135	<u>511</u> 360	<u>5.46</u>	<u>662.29</u>	120

3.6.6 Revised Section 5.19.4 – Conclusion

Section 5.19.4 is revised as shown below.

The system-wide transportation, air quality, noise, and energy analyses are based upon forecasted VMT and, for traffic, vehicle hours of delay. The analysis indicates that all build alternatives would reduce the significant traffic congestion that would occur without the project on most local roadways in 2020 and in 2040. Alternative 1 would result in slightly fewer VMT and slightly more VHD, and would therefore be slightly preferred, although there is no clear preference among build alternatives with respect to traffic because the differences among them are not substantive. The increase in VMT among all build alternatives differs by less than one-quarter of 1 percent. The decrease in VHD among all build alternatives differs by less than 1 percent overall. Differences among build alternatives with respect to air quality are also not substantial, except that Alternative 1 would not exceed the PCAPCD significance threshold for NO_x in 2040. The No-Build Alternative and Alternatives 1 and 4 would have the fewest projected noise impacts in 2020, while Alternatives 4 and 5 would be quieter or need less mitigation in 2040. Alternative 5 would have the fewest impacts on farmlands.

The analysis by segment indicates a preference for alternatives connecting at Sankey Road (Alternatives 4 and 5) in the Western Segment, based on the lesser amount of significant unmitigable impacts on prime

farmland and farmlands of statewide importance; visual impacts; and impacts on biological resources, including substantially fewer impacts on vernal pool complexes.

In the Central Segment, Alternative 4 would be preferred over other build alternatives, due to the lesser amount of ~~significant unmitigable impacts on prime farmland and farmlands of statewide importance~~; impacts to potential historic resources and impacts to biological resources, again with the least impact on vernal pool complexes.

An examination of impacts before mitigation indicates that all alternatives would affect approximately a similar number of residential communities and homes. Alternative 1 would have the least impact on the 100-year floodplain. Alternatives 1, 2, and 3 would have the most impact on hydrology and water quality; Alternative 1 would have the most impacts and Alternatives 4 and 5 the least. Alternatives 1, 2, and 3 would potentially have a slightly greater impact on hazardous waste than Alternative 4 or 5.

Based on this analysis, the No-Build Alternative is the Environmentally Superior Alternative, except with respect to traffic, where it is substantially worse than all build alternatives. Among the build alternatives, Alternative 4 5 (4 is deleted; 5 is added) is the Environmentally Superior Alternative.

3.7 NEW APPENDIX G

Appendix G, Additional Analyses Related to Biological Impacts Prepared for U.S. EPA and U.S. Army Corps of Engineers, is added as a new Appendix.

4.0 REFERENCES

CAPCOA (California Air Pollution Control Officer's Association), 2008. *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January.

CARB (California Air Resources Board), 2008a. CARB web site. <http://gov.ca.gov/fact-sheet/10707/>. Accessed October 8, 2008.

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APPENDIX G

**ADDITIONAL ANALYSES PREPARED FOR U.S. EPA AND U.S. ARMY CORPS OF
ENGINEERS**

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1.0 INTRODUCTION

Since 2003, the Federal Highway Administration (FHWA), California Department of Transportation (Caltrans), and South Placer Regional Transportation Authority (SPRTA) have coordinated with the United States Environmental Protection Agency (U.S. EPA) and the United States Army Corps of Engineers (USCOE), and to a lesser extent the United States Fish and Wildlife Service (USFWS), on the Placer Parkway Tier 1 EIS/Program EIR (hereinafter referred to as the Tier 1 EIS/EIR). Coordination was governed by modifying the National Environmental Policy Act/Clean Water Act Section 404 Integration Process for the Surface Transportation Projects Memorandum of Understanding (NEPA/404 MOU). The process is described in detail in the Draft Tier 1 EIS/EIR's Appendix A-4.

FHWA, Caltrans, SPRTA, and the reviewing federal agencies recognized that the Tier 1 evaluation in the Draft EIS/EIR will not result in a Section 404 permit application; this application would be made at the end of Tier 2. Therefore, for Tier 1, the agencies adapted the NEPA/404 process (Draft Tier 1 EIS/EIR, page 1-5) to reflect decisions made at Tier 1 and to anticipate the permit application requirements at Tier 2. The goal of the modified NEPA/404 process was to ensure that Tier 1 decisions reflected careful consideration of the 404(b)(1) Guidelines as early as possible to eliminate any need to revisit Tier 1 decisions during the NEPA/404 process in the Tier 2 phase.

The Tier 1 (modified) and Tier 2 (standard) NEPA/404 processes are similar in many respects. Both include five concurrence points. The main difference between the two processes was the last two concurrence points. In Tier 2, the project proponent seeks agency concurrence on the Least Environmentally Damaging Practicable Alternative (LEDPA) and its conceptual mitigation plan. In Tier 1, however, the project proponent will seek agency concurrence on the corridor alignment alternative most likely to contain the LEDPA and on a general framework for mitigation.

The five concurrence points of this modified NEPA/404 process are:

1. Purpose and Need
2. Criteria for Selecting the Range of Alternatives
3. Range of Alternatives
4. Alternative(s) most likely to contain the LEDPA
5. Mitigation Framework

USCOE and U.S. EPA have been active partners in the concurrence process along with FHWA, Caltrans, and SPRTA. USFWS chose to track the process without formal involvement in concurrence.

As outlined in the modified NEPA/404 process, agreement on Concurrence Points 1, 2, and 3 occurred prior to completion of the Draft Tier 1 EIS/EIR. Concurrence on points 4 and 5 is to be reached prior to completion of the Tier 1 Final EIS/EIR.

At a meeting on November 7, 2007, the U.S. EPA and the USCOE asked additional questions related to growth inducement and associated potential, secondary and indirect impacts on biological resources, and other information related to a decision regarding the LEDPA for Placer Parkway. At a workshop on February 27, 2008, the SPRTA Board received information regarding this request, and took input from the public. Section 1.2 describes subsequent SPRTA direction as a result of these meetings.

1.1 DESIGN CONCEPT ASSUMPTIONS: INTERCHANGES AND BUFFER ZONE

The Draft Tier 1 EIS/EIR analysis assumed five to six interchanges in the Parkway's Western and Eastern segments, where existing areas of dense development are already located or planned. Access was to be restricted for the 7-mile portion of the alignment between Pleasant Grove Road and Fiddymont Road (see

Figure 1 in the Partially Revised Draft Tier 1 EIS/EIR); the Draft Tier 1 EIS/EIR analysis assumed no interchanges in this segment.

The assumptions regarding interchanges, like other assumptions regarding future land uses, were made based on adopted city and county plans and related planning processes. Furthermore, the exclusion of interchanges between Pleasant Grove Road and Fiddymont Road and the no-development buffer zone were part of the project description in the Draft Tier 1 EIS/EIR, based on project goals and policies established by earlier planning documents. Any future interchanges and/or no-development buffer zone modifications are not part of the project and would require later, independent environmental review.

Placer Parkway would include a corridor that is wider than needed for the proposed roadway, with lands on one or both sides of the facility called “no-development buffer zones,” which would:

- Further a “parkway” concept by maintaining a visual open space element and encouraging linkages to other open spaces along the corridor, preserving open space, biological resources and agricultural uses adjacent to the Parkway.
- Limit future development along the Parkway from encroaching to the facility’s edge by maintaining a zone where development was either not permitted or was severely restricted.
- Limit access to the Parkway, by precluding interchanges in the central segment, which would help to preserve the Parkway as a high-speed facility.
- Limit potential growth inducement that might otherwise result from provision of access in areas not planned for growth.

Section 2.2.4.2 of the Draft Tier 1 EIS/EIR describes a number of mechanisms that may be used to control development and other activity within the buffer. These included land use controls, laws, policies, and regulations, and real property interests, including Fee Simple (Fee Title) Land, Undivided Interest, Conservation Easements, Transfer (Purchase) of Development Rights, Leases, Land Repackaging, and Options/First Rights of Refusal. Although the Draft Tier 1 EIS/EIR included the no-development buffer zone as part of the project description, it did not assume any environmental benefits. It is not the intent of the project that the buffer provides mitigation for adverse environmental impacts from the project.

Nonetheless, USCOE and U.S. EPA raised a concern that if the proposed limitations on interchanges and creation of the no-development buffer zones could not be guaranteed, then the analysis should reflect this. It was acknowledged that FHWA, Caltrans, and SPRTA cannot guarantee that no additional interchanges would ever be constructed. The FHWA cannot legally preclude the right of local jurisdictions to make future land use decisions in the vicinity of or along the Placer Parkway. SPRTA does not have land use authority, although it would have some influence over land acquired for the Parkway and for the no-development buffer zones. Currently, there is no absolute mechanism in place that could guarantee that there would be no new interchanges between Pleasant Grove Road and Fiddymont Road or to maintain a no-development buffer zone width in the varying 500- to 1,000-foot-wide corridor.

1.2 SOUTH PLACER REGIONAL TRANSPORTATION AUTHORITY DIRECTION

At a meeting on March 26, 2008, the SPRTA Board directed SPRTA and PCTPA staff to proceed with preparation of the analyses needed to respond to the federal agencies’ questions, and to provide this information to the public to provide a fuller disclosure of potential environmental effects and to make a stronger foundation for subsequent Tier 2 (construction-level) environmental reviews and consideration of any new interchanges or buffer adjustments.

Therefore, the following analyses were conducted:

- **Analysis of Growth-Inducing Effects (Section 2.0).** This evaluation uses a hypothetical scenario in which the Parkway does not have a no-development buffer zone, and in which three to four additional interchanges are included. The analysis evaluates the amount of Potentially Developable Land near each Parkway corridor alignment and around each interchange. The intent of this approach was to identify how the Parkway corridor alignment alternatives differ in the area of adjacent Potentially Developable Land, and how these differences could potentially influence project-induced growth.
- **Traffic Analysis (Section 3.0).** This analysis was performed to identify if the additional hypothetical interchanges would degrade Parkway traffic flow or cause an alternative to fail to achieve the project purpose and need.
- **Analysis of Growth Effects on Biological Resources (Section 4.0).** This evaluation uses the evaluation of Potentially Developable Land near the alignments from the growth-inducing analysis. This analysis was performed to identify what biological resources might be affected by development of the land near the Parkway alignments and whether development in these areas would result in habitat fragmentation.
- **Cumulative Impacts Analysis (Section 5.0).** This evaluation includes a more detailed investigation of cumulative impacts. The analysis identified how the Parkway corridor alignment alternatives differ in potential cumulative impacts on wetlands and vernal pool complexes.

It should be stressed that the analyses presented below reflect responses to questions raised by the federal agencies and do not reflect changes in the project as proposed. The project includes a buffer zone and five to six interchanges, depending on the build alternative. For the purposes of this appendix, a hypothetical scenario is evaluated which eliminates the no-development buffer zone and adds an additional two to three interchanges. The scenarios identified and analyzed below are presented only for the purposes of responding to the hypothetical questions raised by the agencies, for purposes of their evaluation of the LEDPA.

2.0 GROWTH INDUCEMENT

2.1 BACKGROUND

Placer Parkway is intended to reduce anticipated congestion on both the local and the regional transportation system and advance economic development goals in south Sutter County and southwestern Placer County. The project vicinity includes some of the fastest growing communities in the Sacramento Metropolitan region—Roseville, Rocklin, Lincoln, and the area covered by the Sunset Industrial Area Plan (SIAP). The Sacramento Area Council of Governments (SACOG) projects that the population in southwestern Placer County will nearly double between 2000 and 2025. Employment in the State Route (SR) 65 corridor is expected to grow even faster than the population. The anticipated development to support this increased population and employment will dramatically increase travel demand over the next 20 years and beyond.

Placer Parkway would be designed to improve regional accessibility for businesses and jobs in the project vicinity, including access to SR 70/99 and the Interstate 5 corridor in northern Sacramento County and access to the Sacramento airport. With its controlled access, an objective of the proposed transportation facility would be to strike a balance among advancing planned job growth along the SR 70/99 and SR 65

corridors, avoiding urban growth inducement in areas not designated for development, and helping to preserve the rural character of south Sutter County and southwestern Placer County.

Due to recent and anticipated job and population growth in the six-county Sacramento region and particularly in western Placer County (as described in the Placer Parkway Community Impact Assessment, the MEPLAN report, and the Draft Tier 1 EIS/EIR), the region is expected to experience continuing development pressure regardless of whether or not Placer Parkway is built.

2.2 SUMMARY OF DRAFT TIER 1 EIS/EIR CONCLUSIONS ON GROWTH INDUCEMENT

2.2.1 Qualitative Conclusions of the Draft Tier 1 EIS/EIR

The Draft Tier 1 EIS/EIR concluded that Placer Parkway, as a component of the rapidly evolving urban matrix in western Placer County, would be growth inducing because it would help support changes in the amount of growth beyond current general plan levels, and could influence the pace and location of some development. While the project vicinity is predominantly undeveloped, parts of the study area¹ are within local General Plan designations that allow urban growth. In addition, numerous proposals for major new development projects in and around the study area depicted on Figure G-1 are in various stages of the approval and entitlement process. Portions of the surrounding area, especially northern Sacramento County and southwestern Placer County, have developed very rapidly over the past several decades. This development has occurred as a result of many factors, including continuing net population growth statewide, strong employment growth in the Sacramento region, relative housing affordability, and location amenities.

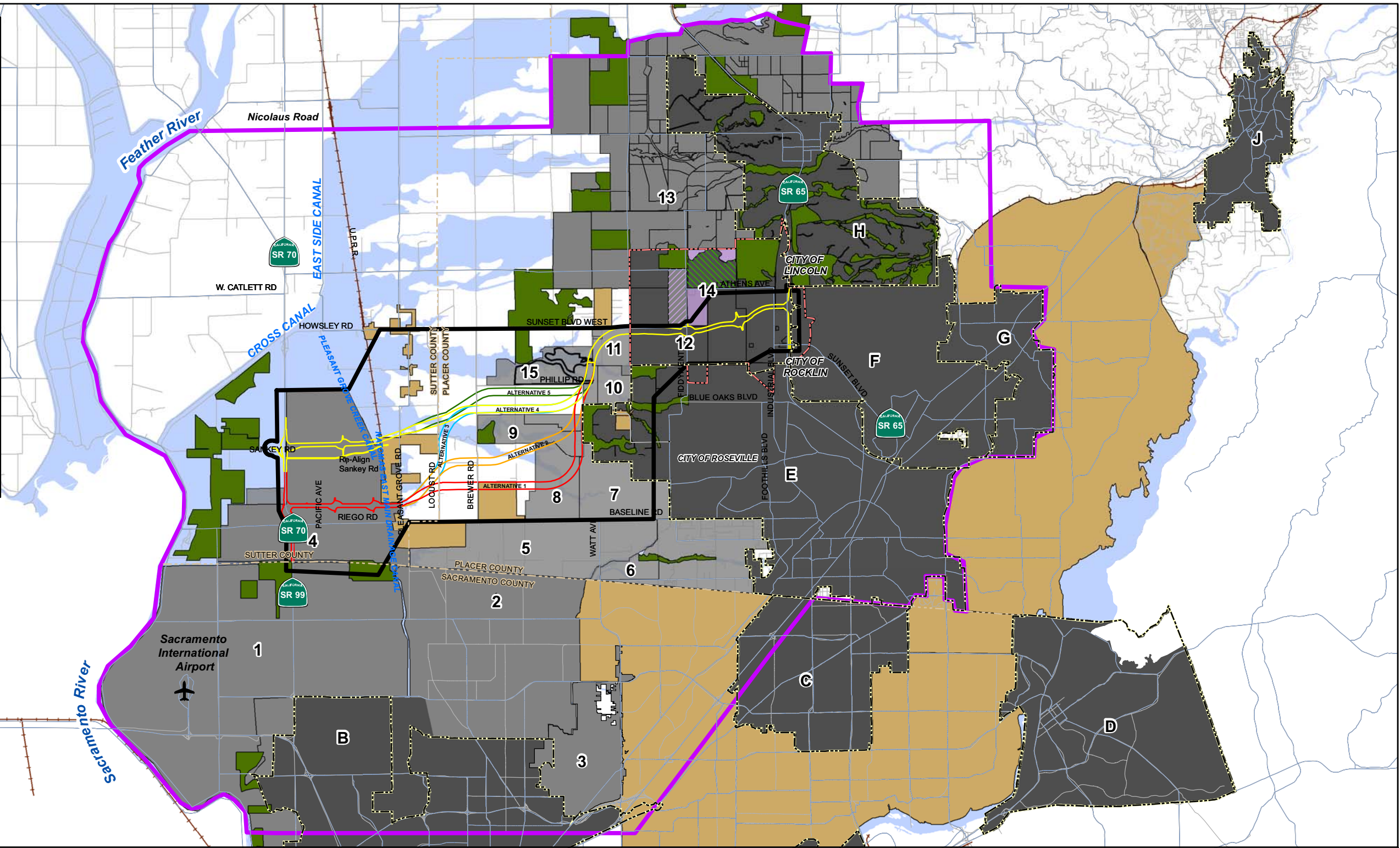
Population and employment growth projections for California and the Sacramento Region in general, and for south Sutter County and southwestern Placer County in particular (described in detail in the Draft Tier 1 EIS/EIR Community Impact Assessment), indicate that development pressures in the project vicinity will remain relatively intense irrespective of Placer Parkway, with the Roseville-Rocklin-Lincoln area expected to remain one of the fastest growing areas in the region.

Placer Parkway could help to implement the various specific development proposals in the study area, because it would serve to relieve traffic congestion associated with these proposals. Furthermore, Placer Parkway could affect the timing of development in the vicinity of the proposed interchange locations, particularly those proposed near vacant land adjacent to rapidly developing areas or areas now proposed for urban development. However, because Placer Parkway is proposed as a limited-access road in an area that is already undergoing extensive and rapid urbanization, it has limited potential to facilitate growth that would not have otherwise occurred. It could result in different land uses, or more intensive land uses, in the vicinity of interchanges where land use plans are still being developed and have not yet been approved. Also, it could hasten the buildout of planned commercial and industrial uses (Figure G-1), especially in the SIAP area and the proposed Placer Ranch Specific Plan (PRSP) area, as well as in the proposed Sutter Pointe Specific Plan (SPSP) area.

¹ For most of the impact analyses, the Draft Tier 1 EIS/EIR focused on the main project study area (approximately 55 square miles). However, to evaluate secondary and indirect impacts, including growth, a 387-square-mile study area was used (see Figure G-1). It encompasses the entire Transportation Analysis Study Area (TASA) that was used for the project (see Figure G-2). The TASA is the area where changes in traffic volumes would occur as a result of the Parkway. The secondary and indirect analysis study area expands the TASA in several ways, including extending it westward to the Sacramento and Feather rivers (natural features and significant barriers to development). The area was also expanded to the north to encompass all of the City of Lincoln's proposed Sphere of Influence expansion area, as well as to the east to encompass all of the land within the city limits of Roseville and the town limits of Loomis. This secondary/indirect impacts study area boundary is consistent with Guidance for Preparers of Growth-Related, Indirect Impact Analyses (Mare Island Accord, 2006).

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- Cities/Towns:**
- A - Woodland
 - B - Sacramento
 - C - Citrus Heights
 - D - Folsom
 - E - Roseville
 - F - Rocklin
 - G - Loomis
 - H - Lincoln
 - I - Wheatland
 - J - Auburn
- Planned/Proposed Development Areas:**
- 1 - Natomas Joint Vision Area
 - 2 - Rio Linda and Elverta Community Plan Area
 - 3 - McClellan Redevelopment Project Area
 - 4 - Measure M / Sutter Pointe
 - 5 - Placer Vineyards Specific Plan Area
 - 6 - Riolo Vineyards Specific Plan Area
 - 7 - Sierra Vista Specific Plan Area
 - 8 - Curry Creek Community Plan Area
 - 9 - Regional University Specific Plan Area
 - 10 - Creekview Specific Plan Area
 - 11 - Brookfield Property
 - 12 - Placer Ranch Specific Plan Area¹
 - 13 - City of Lincoln SOI Expansion Area
 - 14 - Sunset Industrial Area Plan (SIAP)²
 - 15 - Reason Farms
- ¹ Includes Placer Ranch Specific Plan area (#12); entire SIAP is shown as approved for development
- ² Placer Ranch Specific Plan is in SIAP and is therefore shown as approved for development, specific development proposal pending



City Boundary	Alternative 1	Alternative 4	Existing and Approved Development	Developed Unincorporated Areas	Study Area for Secondary and Indirect Impacts	Proposed Landfill Expansion
County Boundary	Alternative 2	Alternative 5	Planned / Proposed Development (including future conservation areas)	Municipal Facilities	Project Study Area Boundary	Pending Conservation Area
Railroads	Alternative 3	Existing Conservation Areas	100 Year Floodplain Areas	Sunset Industrial Area	Flood Control/Recreation	

Source: North Fork Associates; Mara Feeney Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



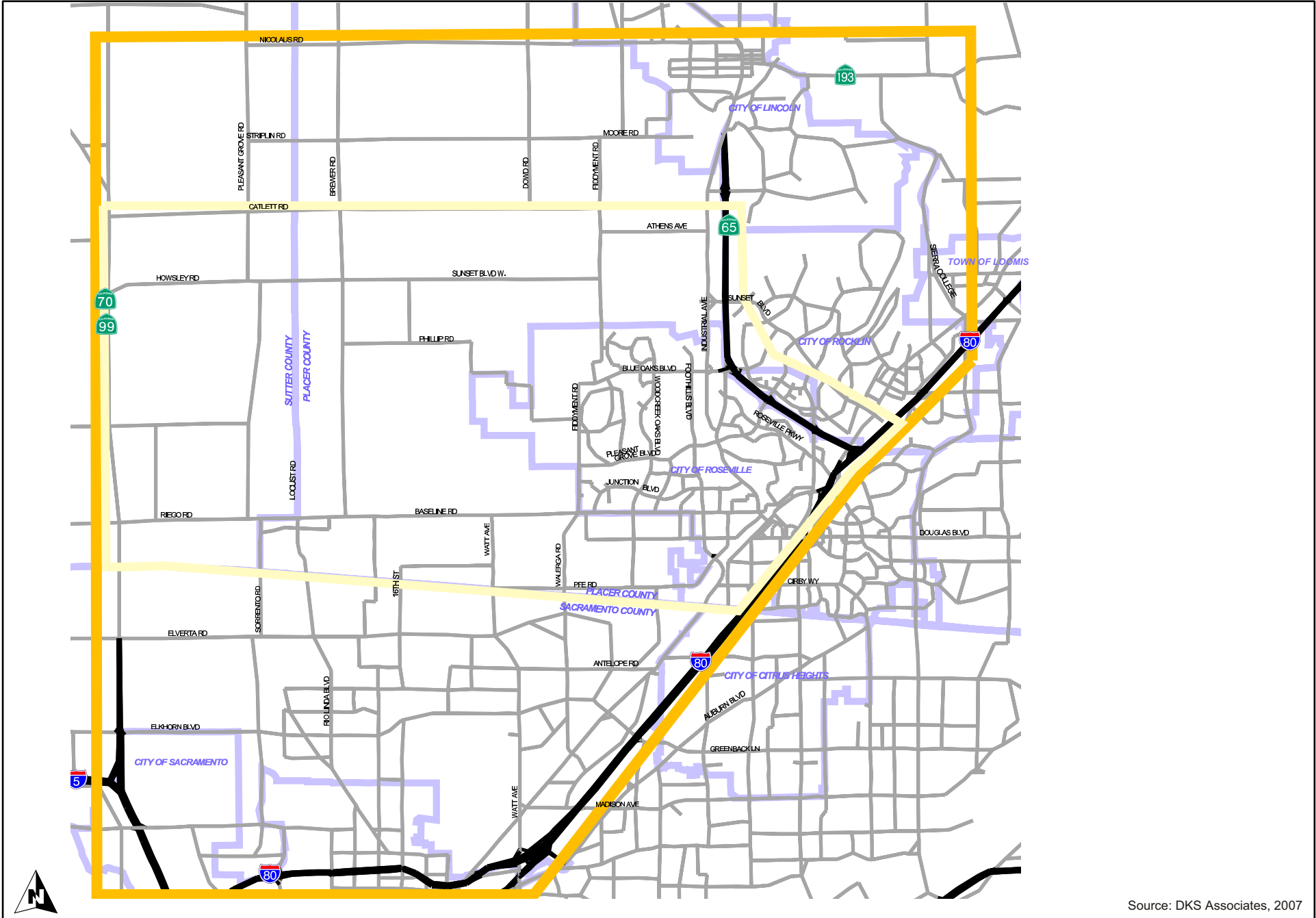
TIER 1 EIS/EIR

Secondary and Indirect Impact Analysis Study Area

Figure G-1

January 2009

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Source: DKS Associates, 2007



 <p>Transportation Analysis Study Area</p>	 <p>Analysis Focus Area</p>
-------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------

Tier 1 EIS/EIR

Existing Roadway Network and Transportation Analysis Study Area (TASA)

Figure G-2
January 2009

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In the longer term, improved access provided to lands in the Western and Eastern segments could be a factor in stimulating additional growth and development in areas west of SR 70/99 not protected by the Natomas Basin Habitat Conservation Plan, north of the SPSP area, or north of Sunset Boulevard West in Placer County. Although growth is anticipated in these areas over time (as reflected in SACOG's preferred Blueprint, the Sutter County General Plan, and the City of Lincoln General Plan), such development at present has not been formally proposed by landowners. By providing improved access to adjacent areas, Placer Parkway could be one of many factors that would encourage growth in these areas (or eventual redevelopment of low-intensity developed unincorporated areas) sooner than it might otherwise occur.

Several factors serve to limit the likely effect of Placer Parkway on growth, including the following:

- No interchanges are proposed for any areas that are not already approved or planned/proposed for development (however, as resource agency staff have noted, preclusion of future interchange construction cannot be guaranteed by the project proponents);
- All approved residential development that has not already been built is projected to be built out prior to 2020, when Placer Parkway is proposed to open; and
- Real estate market pressures in the area have been and continue to be intense without Placer Parkway, and local government jurisdictions have been supportive of processing development applications in spite of anticipated regional transportation challenges.

It is unlikely that the choice of one Placer Parkway build alternative over another would substantially change expected patterns of growth and development in the project study area and the surrounding region. In the Western Segment, all corridor alignment alternatives would provide new access to an area that is now undeveloped farmland, but that is proposed for mixed use urban development. In addition to an interchange at SR 70/99, the three more southerly corridor alignments (Alternatives 1, 2, and 3) would provide two interchanges in the SPSP area, while the more northerly corridor alignments (Alternatives 4 and 5) would provide only one interchange in this area, slightly more than 1.6 miles farther north of the more southerly corridor alignments in the Western Segment. Since none of the corridor alignment alternatives would include any interchanges in the Central Segment, there would be little difference in growth inducement effects among the alternatives in this segment. In the Eastern Segment, two interchanges are proposed within the existing SIAP area, in an area proposed for the PRSP (which is partially within the SIAP area), as well an interchange with SR 65. While these interchanges would provide new access to an undeveloped area, this area is planned for growth. In the Eastern Segment, all corridor alignment alternatives would follow an identical alignment, so there would be no differences in growth inducement effects among the alternatives.

An interchange between Placer Parkway and Watt Avenue is not proposed as part of the project and would be subject to separate, independent environmental review. Such an interchange is considered to have the potential to occur because local government entities envision a northerly extension of Watt Avenue. The Draft Tier 1 EIS/EIR concluded that such a connection could be growth inducing, because it would provide major new regional access to a portion of the project study area that is now rural and undeveloped, although most of the land in this vicinity is controlled by development interests.

2.2.2 Quantitative Conclusions of the Draft Tier 1 EIS/EIR

MEPLAN is an integrated land use transportation model that forecasts the influence of transportation conditions on local land use development and the impacts of local land use development on transportation conditions (Placer Parkway Draft Tier 1 EIS/EIR, Section 6.1.3.3, page 6-7). The MEPLAN model was selected as a tool to compare growth patterns that would occur in the project study area with and without

the Parkway. Its model runs were intended to help clarify differences in the potential distribution of growth (jobs and housing) in the study area with and without the project, as well as to differentiate the potential for growth inducement among corridor alignment alternatives (DKS Associates, 2007). The MEPLAN model predicted 2040 development levels in the study area and the surrounding region based on five scenarios:

- No-Build Alternative;
- Alternative 1 (red) – southern corridor alignment alternative, closest to existing urban development in Roseville and unincorporated Placer and Sacramento counties;
- Alternative 1 with a Watt Avenue interchange;
- Alternative 5 (green) – northern corridor alignment alternative, farthest from existing urban development; and
- Alternative 5 with a Watt Avenue interchange.

Alternatives 1 and 5 were chosen as representative examples of northerly and southerly corridor alignments. It was anticipated that findings for Alternatives 2 and 3, if analyzed, would be similar to Alternative 1, and findings for Alternative 4 would be similar to Alternative 5.

Compared to the No-Build Alternative, the MEPLAN model estimated that build alternatives would result in about 1,000 to 1,200 additional households by 2040 in the project vicinity. The amount of residential development in the remainder of the surrounding region (e.g., rural portions of Yuba, Sutter, and Yolo counties) would decrease by about the same amount. Compared to the No-Build Alternative, these additional households represent an increase of about 0.4 percent in the total number of households in the local project vicinity by 2040.

Compared to the No-Build Alternative, the MEPLAN model estimated that the build alternatives would result in about 1,800 to 2,100 additional jobs by 2040 in the project vicinity. The number of jobs in the remainder of the surrounding region (e.g., rural portions of Yuba, Sutter, and Yolo counties) would decrease by about the same amount. Compared to the No-Build Alternative, these additional jobs represent an increase of about 0.6 to 0.7 percent in the total number of jobs in the local project vicinity by 2040.

As can be seen in Table G-1, MEPLAN modeling results indicate that Alternative 1 would attract slightly more households and jobs to the local project vicinity than Alternative 5. Alternative 1 would attract 31 more households and 122 more jobs than Alternative 5.

Results for Alternatives 2 and 3 would likely be similar to findings for Alternative 1, since they follow almost identical corridor alignments in the Eastern and Western segments. For the same reason, results for the Alternative 4 corridor alignment could be expected to be similar to those for Alternative 5.

Table G-1
MEPLAN Projected Households and Jobs in the Local Project Vicinity,
No-Build Alternative, Alternative 1, and Alternative 5 in 2040

Households/Jobs	No-Build Alternative	Alternative 1 (change)	Alternative 5 (change)
2040 Households in Local Project Vicinity	268,409	269,411 (+1,002)	269,380 (+971)
2040 Jobs in Local Project Vicinity	295,979	297,918 (+1,939)	297,796 (+1,817)

Source: DKS Associates, 2007.

The figures included in the MEPLAN report show the expected spatial distribution of households and jobs under the northern and southern corridor alignment alternatives, compared to the No-Build Alternative. Under both Alternatives 1 and 5, the greatest increase in jobs concentration would occur in Traffic Analysis Zone 60 (south Sutter County) (Figure G-3), but the distribution of additional households under the two alternatives would occur somewhat differently. Under Alternative 1, more households would be attracted to Traffic Analysis Zones 63 (West Rocklin) and 62 (Central West Placer, west of Lincoln), while Alternative 5 would result in a greater concentration of households in Traffic Analysis Zone 60 (south Sutter County), closer to the greater Sacramento region.

The MEPLAN modeling also considered the impact of a Placer Parkway interchange at a future Watt Avenue extension. The results of this analysis are summarized in Table G-2.

Table G-2
MEPLAN Projected Households and Jobs in the Local Project Vicinity,
with Watt Avenue Interchange in 2040

Households/Jobs	No-Build Alternative	Alternative 1 (change)	Alternative 5 (change)
2040 Households in Local Project Vicinity	268,409	269,593 (+1,184)	269,445 (+1,036)
2040 Jobs in Local Project Vicinity	295,979	298,116 (+2,137)	298,060 (+2,081)

Source: DKS Associates, 2007.

As Table G-2 shows, a Watt Avenue interchange would attract additional households and jobs to the project vicinity.

- Alternative 1 would add 182 more households and 198 more jobs to the local project vicinity with a Watt Avenue interchange than without one.
- Alternative 5 would add 65 more households and 264 more jobs to the local project vicinity with a Watt Avenue interchange than without one.

Without the Watt Avenue interchange, the greatest increase in jobs concentration resulting from both the northern and southern corridor alignments would occur in Traffic Analysis Zone 60, south Sutter County (Figure G-3). With a Watt Avenue connection, the increase in households concentration would be greatest for both corridor alignment alternatives in the eastern and central portions of the project vicinity—in Traffic Analysis Zones 61 (West Placer – North) and 63 (West Rocklin). Alternative 1 would also increase the concentration of households with a Watt Avenue interchange scenario in Traffic Analysis Zone 62 (West Placer – Central).

In conclusion, the MEPLAN model runs indicate that the numbers of households and jobs associated with the southern versus northern corridor alignment alternatives would be similar. However, greater changes are associated with Alternative 1 (in the south) than with Alternative 5 (in the north), both in quantitative and qualitative terms. With a southern alignment, and with a Watt Avenue connection, there would be more housing units attracted to the area west of Lincoln rather than closer to existing development north of Sacramento.

2.3 ADDITIONAL GIS-BASED ALTERNATIVES ANALYSIS

In November 2007 the U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Army Corps of Engineers (USCOE) asked additional questions related to differences in growth inducement potential among the project alignment alternatives to assist in determining which corridor alignment alternative

might contain the LEDPA. In addition, since the future construction of interchanges between Pleasant Grove Road and Fiddymment Road cannot be *guaranteed* to not be implemented by others in the future, consideration of growth inducement potential associated with hypothetical future interchanges along the Placer Parkway corridor alignments was requested. Similarly, since maintenance of the 500- and 1,000-foot no-development buffer zones cannot be *guaranteed* into the future, consideration of growth inducement in the buffer area was also requested.

In response to these questions, the project's GIS database was used to generate additional information to facilitate analysis of potential growth that could occur in specific portions of the study area, as described below. Acreages of the various types of existing and future land development categories (Figure G-1) were tabulated for the following *new analysis areas*:

1. all land within 1 mile of each proposed conceptual interchange on each corridor alignment alternative;
2. all land within 1 mile of a potential future Watt Avenue interchange option by corridor alignment alternative;
3. all land within 1 mile of a hypothetical future interchange between Pleasant Grove Road and Fiddymment Road near Brewer Road;²
4. all land within 1 mile of a hypothetical future interchange in the Eastern Segment between Watt Avenue and Fiddymment Road³; and
5. all land within 1 mile of the entire length of each corridor alignment alternative (measured from the corridor boundary but also including the land within the corridor itself).

Figure G-4 shows the Parkway corridor alignment alternatives, including the proposed, potential and hypothetical interchanges described above. Figure G-5 shows the new analysis areas (1 mile from each interchange as well as 1 mile from each corridor) for all build alternatives. Figures G-6 through G-10 show land use by type within these new analysis areas for each individual corridor alignment alternative.

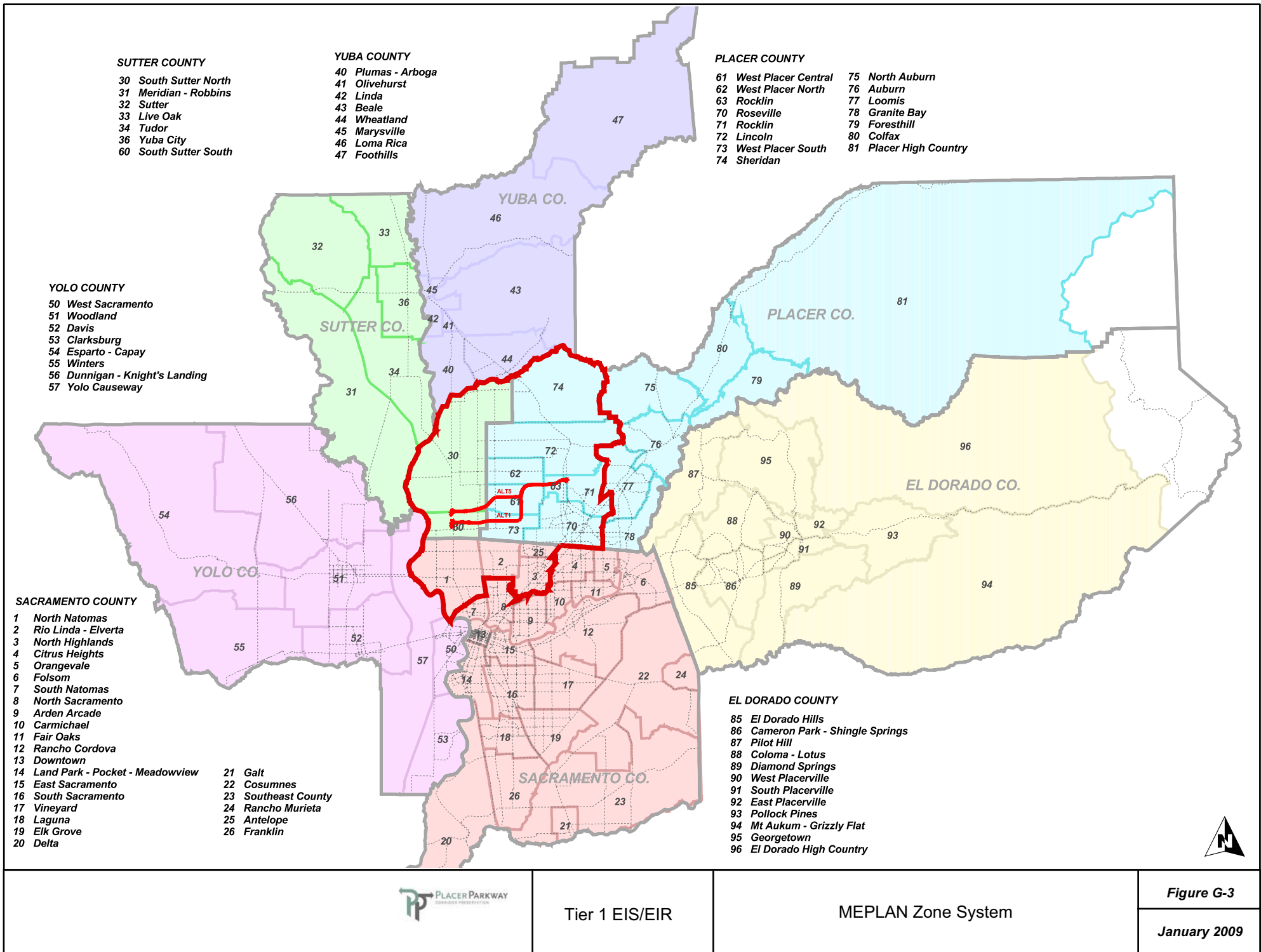
For the purpose of this exercise, the 1-mile analysis limit was selected for two reasons:

- National Cooperative Highway Research Program Report 466 (NCHRP, 2002) — a document recommended by U.S. EPA staff for use in this analysis — states that “development effects are most often found up to 1 mile around a freeway interchange.”
- The proposed interchange concept locations are approximately 1 mile apart in the Western and Eastern segments. So, examining development effects beyond 1 mile could result in overlapping study areas that would blur rather than clarify differences among the corridor alignment alternatives.

The existing and future land use development categories on Figure G-1 were tabulated for each of the newly defined areas based on 1-mile boundaries. These tabulations are shown in Table G-3, and the acres

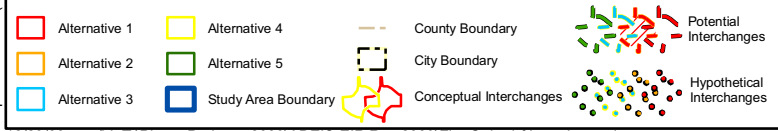
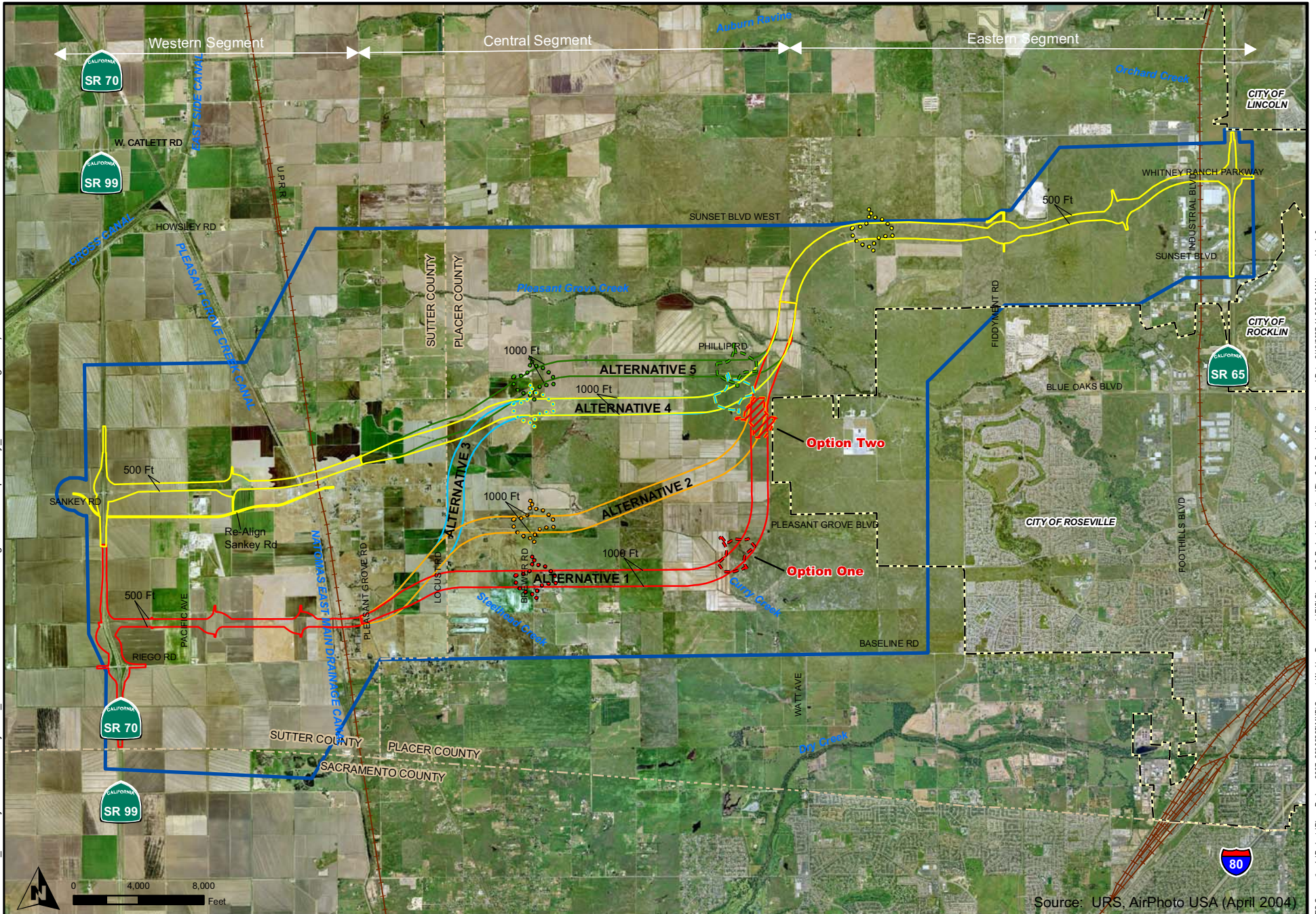
² Brewer Road was selected for this hypothetical exercise because it is roughly halfway between the conceptual Watt Avenue interchange and the easternmost proposed interchanges in the Western Segment, and meets the 2-mile interchange spacing requirement for rural interchanges. An interchange at this location would likely be “worst case” since it is located in the undeveloped Central Segment away from existing and proposed development areas.

³ This location was selected as the appropriate location for a future hypothetical interchange in the Eastern Segment as it is approximately 1 mile from the proposed Eastern Segment interchange at Fiddymment Road. It is also located just east of the point where the corridor alignment begins to curve, making construction of an interchange any further west potentially infeasible due to engineering and safety constraints.



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Tier 1 EIS/EIR

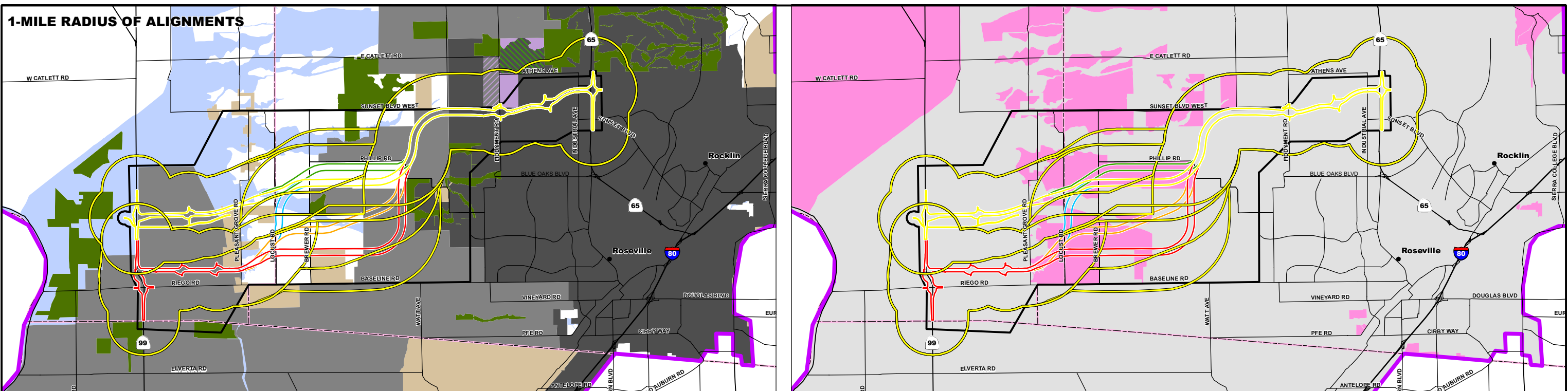
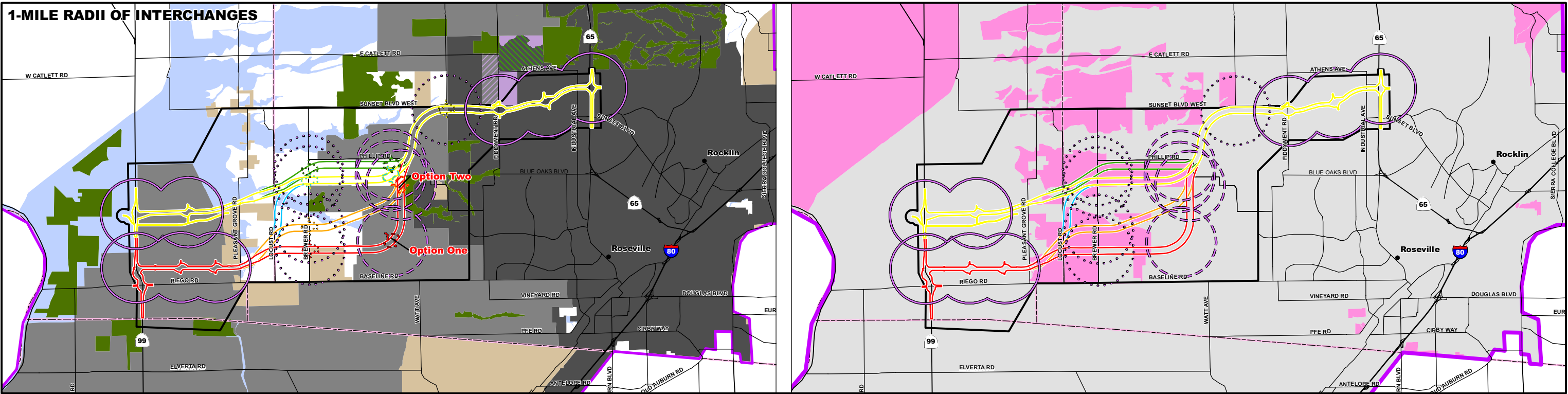
Parkway Alternatives, and Conceptual, Potential and Hypothetical Interchanges

Figure G-4
January 2009

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Source: URS, AirPhoto USA (April 2004)

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Existing Conservation Areas	100-Year Floodplain	Alternative 1	Radii of Alignments	Potential Interchanges	Radii of Interchanges	Developed or Constrained Land
Developed Unincorporated Areas	Proposed Landfill Expansion	Alternative 2	Study Area for Secondary and Indirect Impacts	Hypothetical Interchanges		Potential Interchange (Watt Avenue)
Municipal Facilities	Pending Conservation Area	Alternative 3	Project Study Area Boundary	Conceptual Interchanges	Hypothetical Interchange	
Planned/Proposed Development	County Boundary	Alternative 4	City/Town			
Existing and Approved Development		Alternative 5				

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, All Alternatives

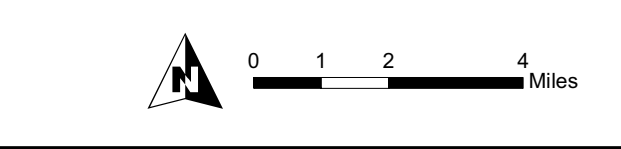
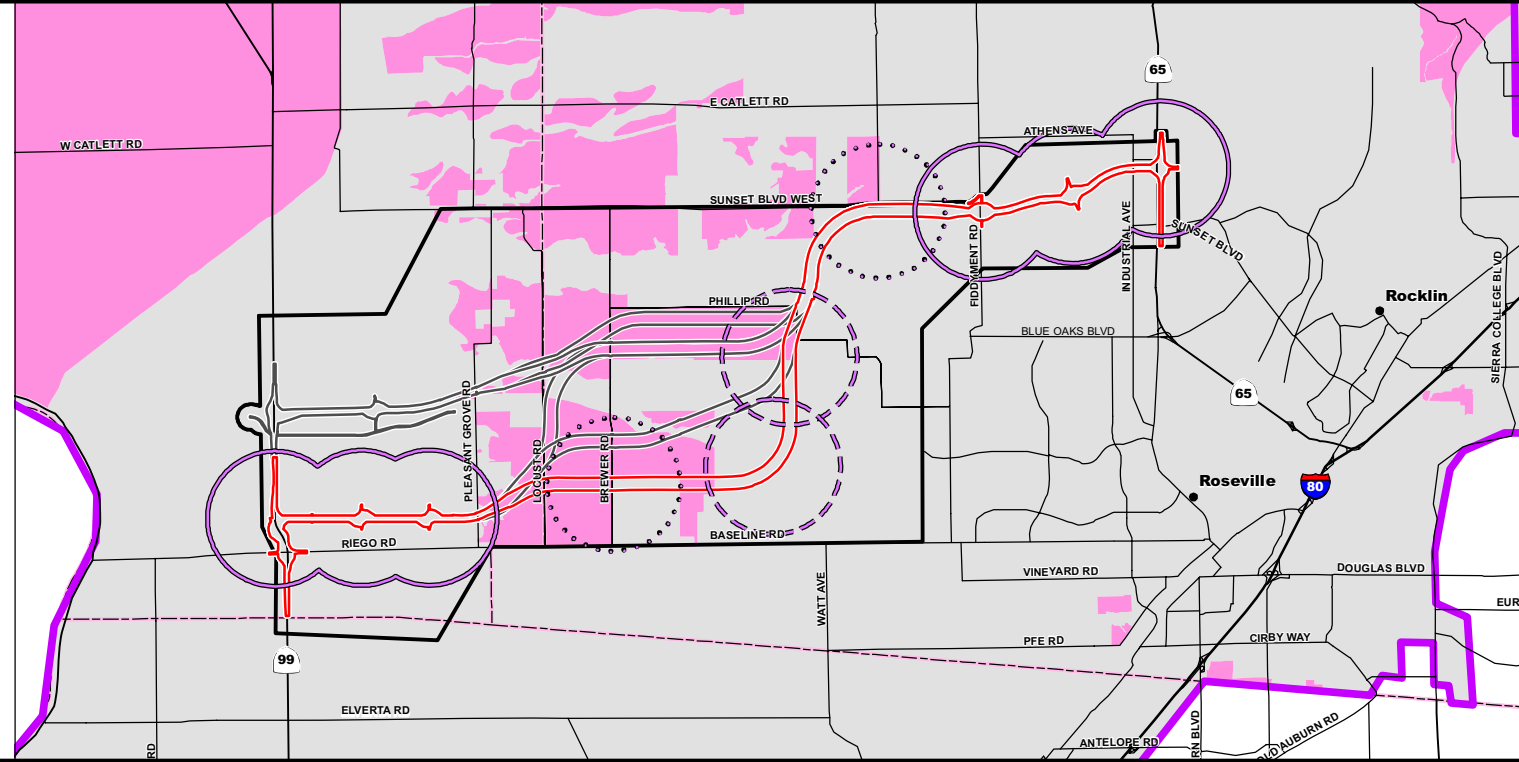
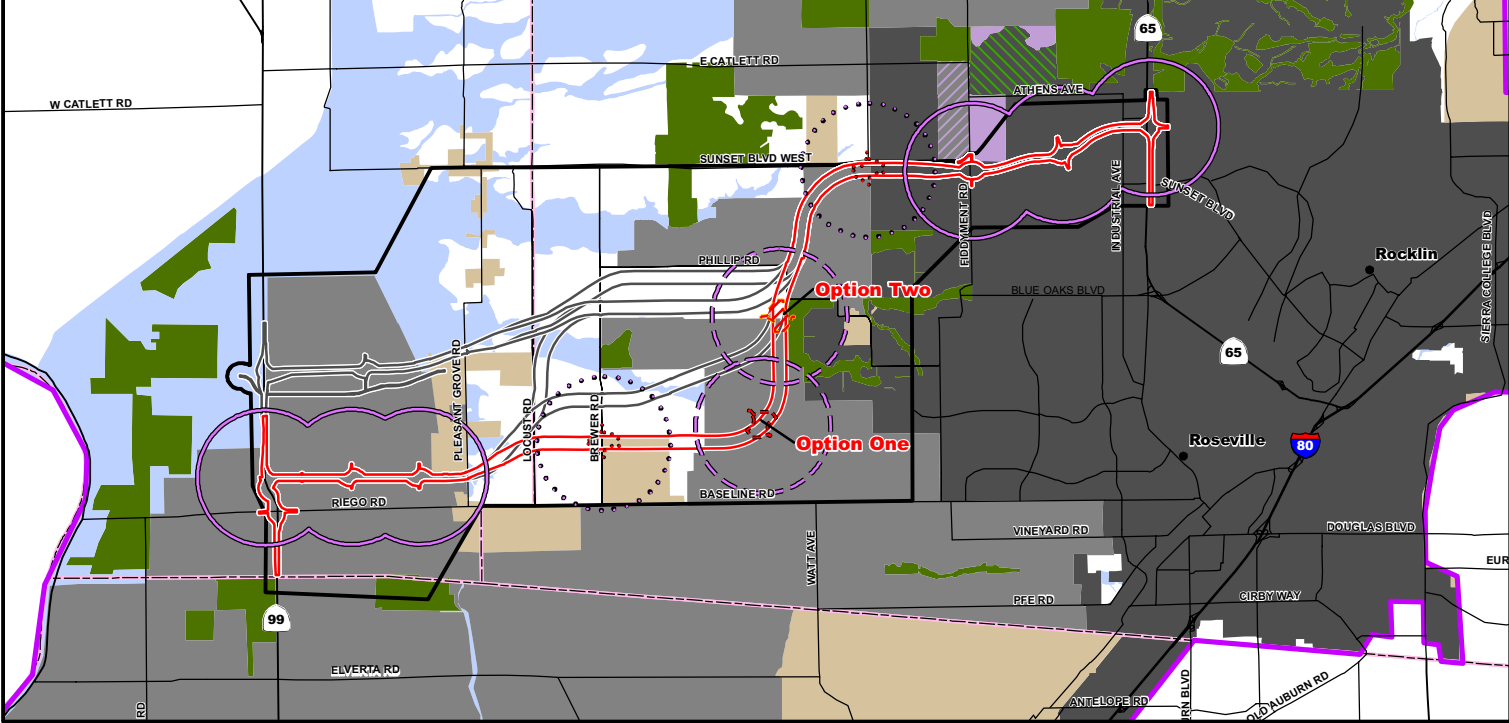


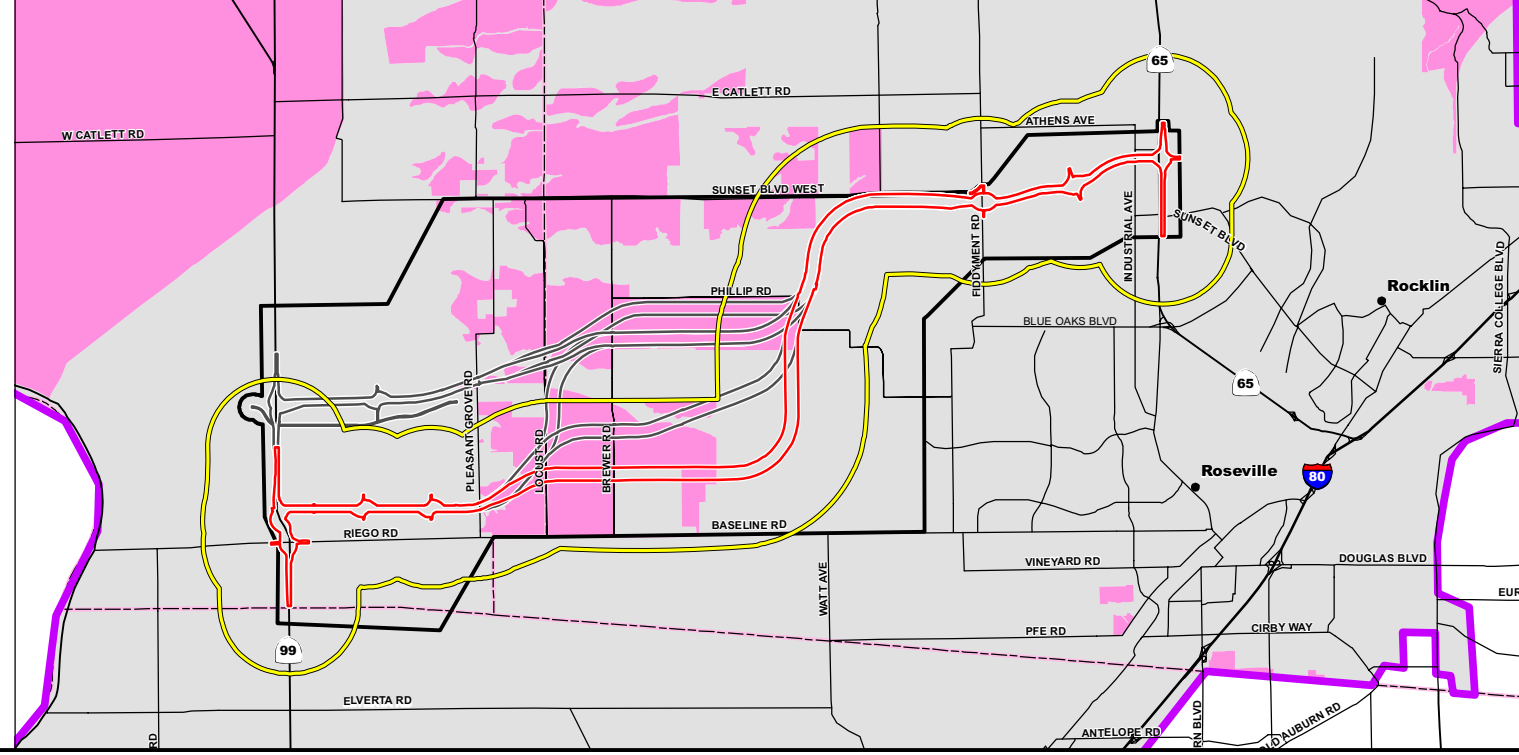
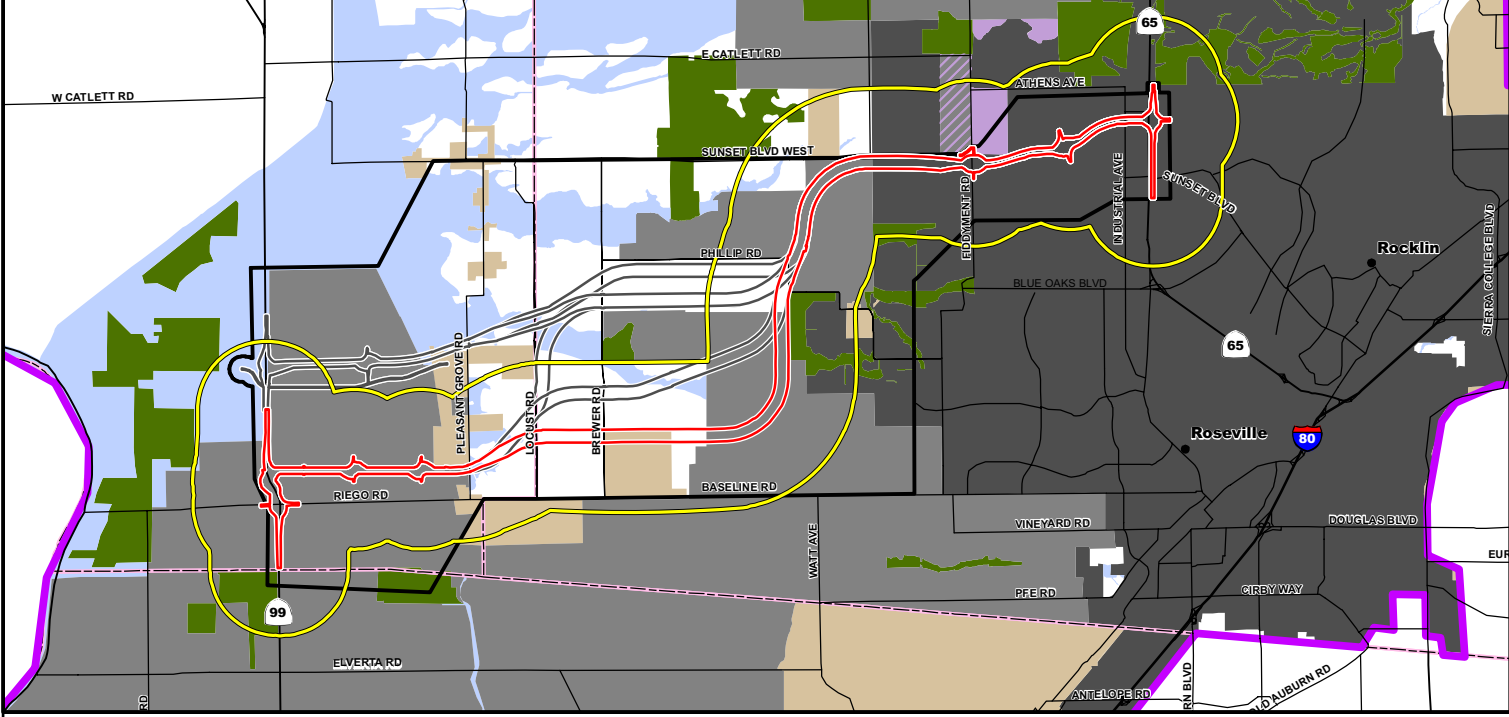
Figure G-5
January 2009

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1-MILE RADII OF INTERCHANGES



1-MILE RADIUS OF ALIGNMENTS



Existing Conservation Areas	100-Year Floodplain	Alternative 1	Radii of Alignments	Potential Interchanges	Conceptual Interchange	Developed or Constrained Land
Developed Unincorporated Areas	Proposed Landfill Expansion	Other Alternatives	Study Area for Secondary and Indirect Impacts	Hypothetical Interchanges	Potential Interchange (Watt Avenue)	Undeveloped Land
Municipal Facilities	Pending Conservation Area	Project Study Area Boundary	Conceptual Interchanges	Hypothetical Interchange		
Planned/Proposed Development	County Boundary					
Existing and Approved Development	City/Town					

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, Alternative 1

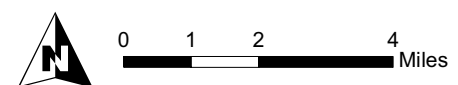
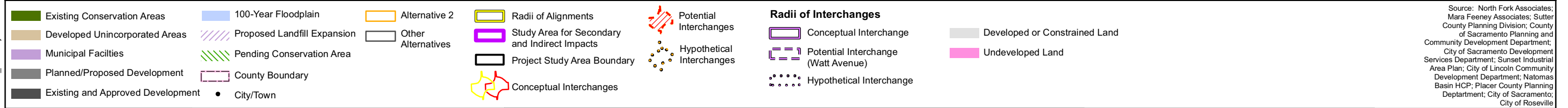
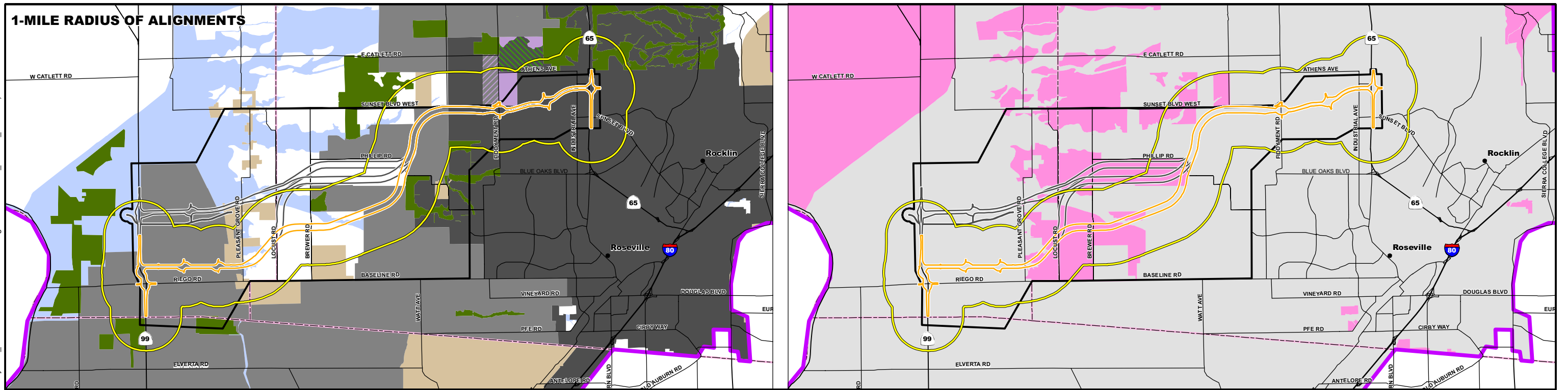
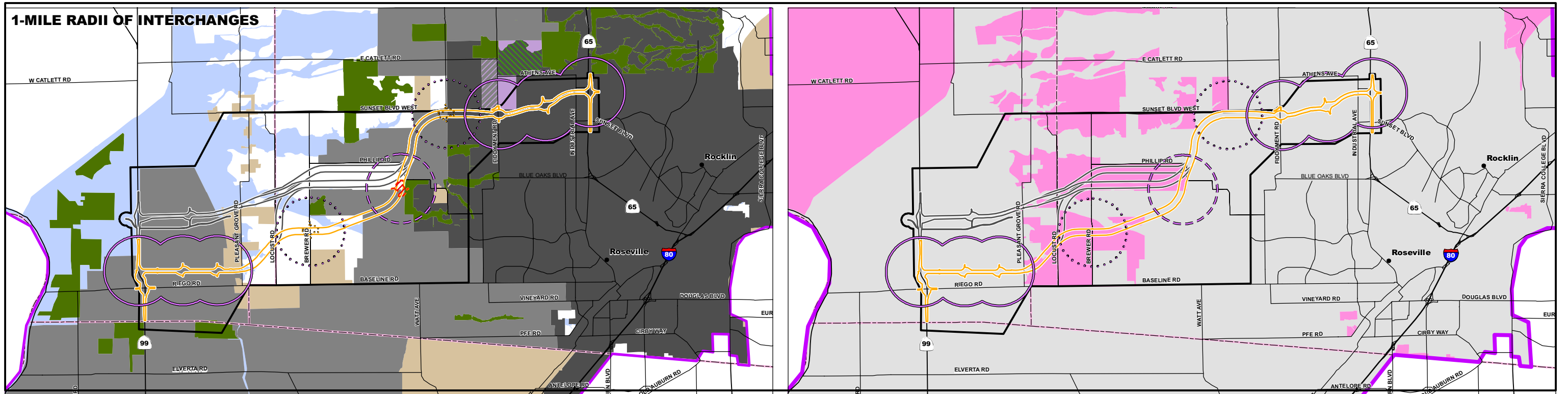


Figure G-6
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Map Document: U:\GIS\Placer_Parkway\PlacerParkway2007_28066595\MXD\Current Working Documents\alt2_landuse_radli.mxd 4/30/2008 -- 8:45:07 AM KLawrence



Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, Alternative 2

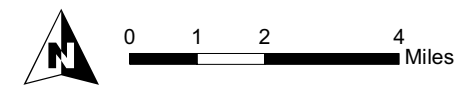
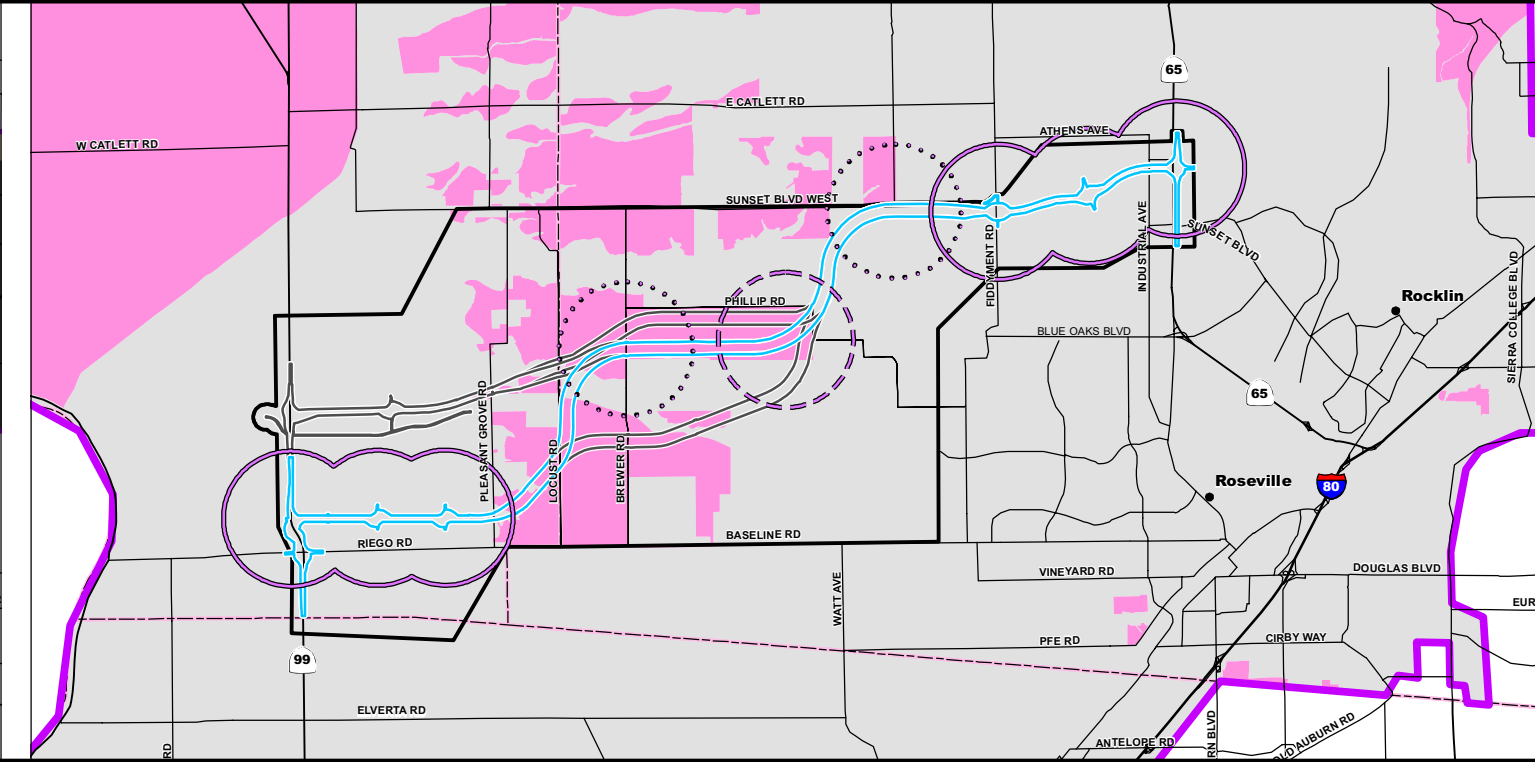
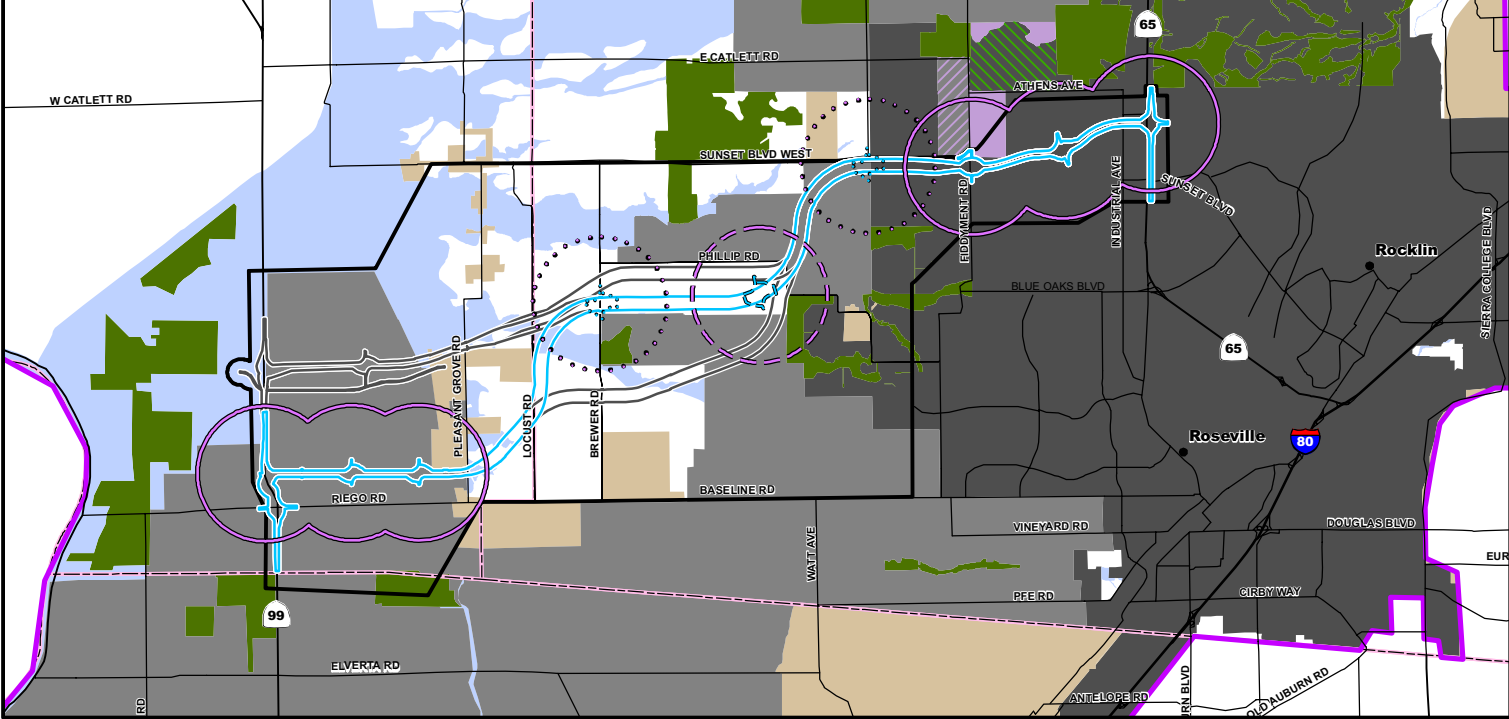


Figure G-7

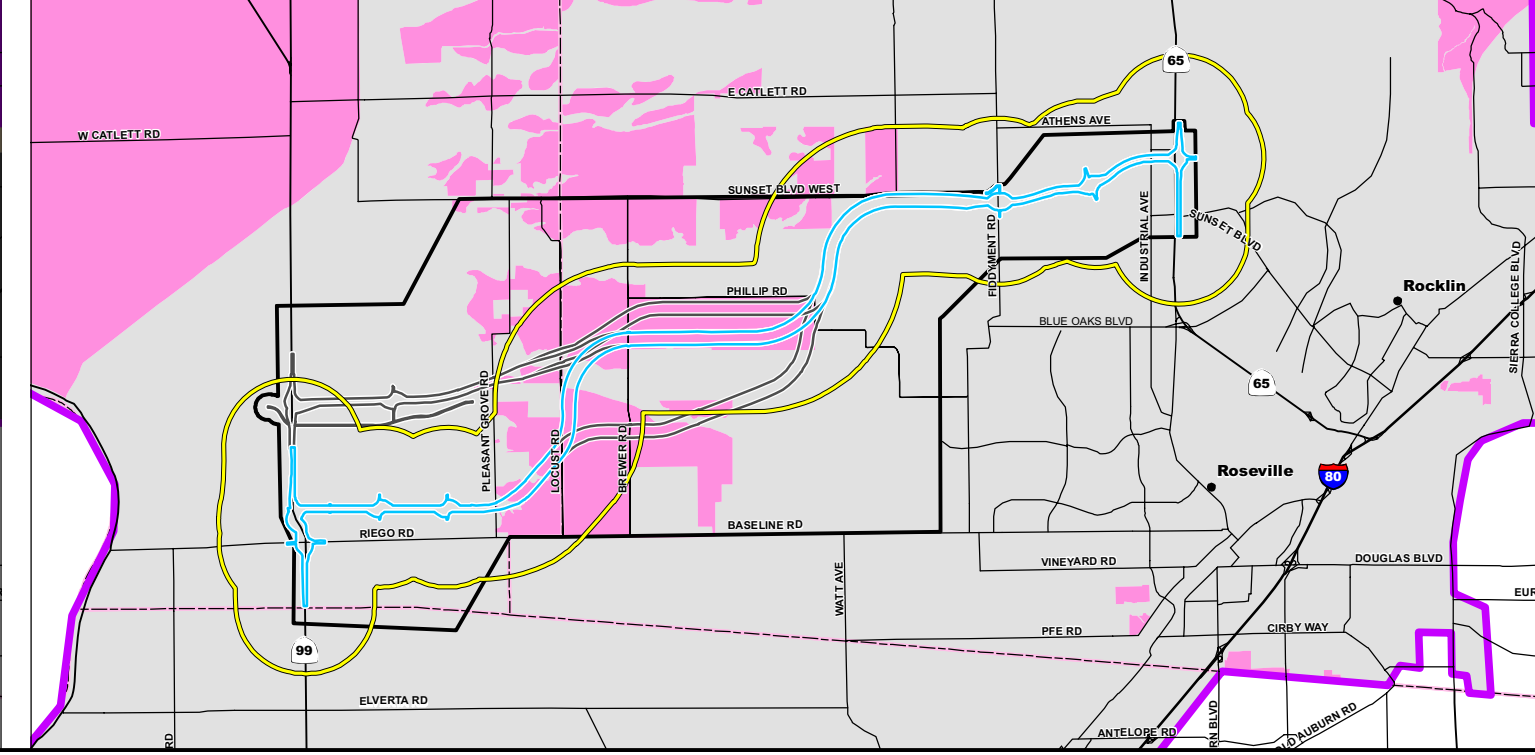
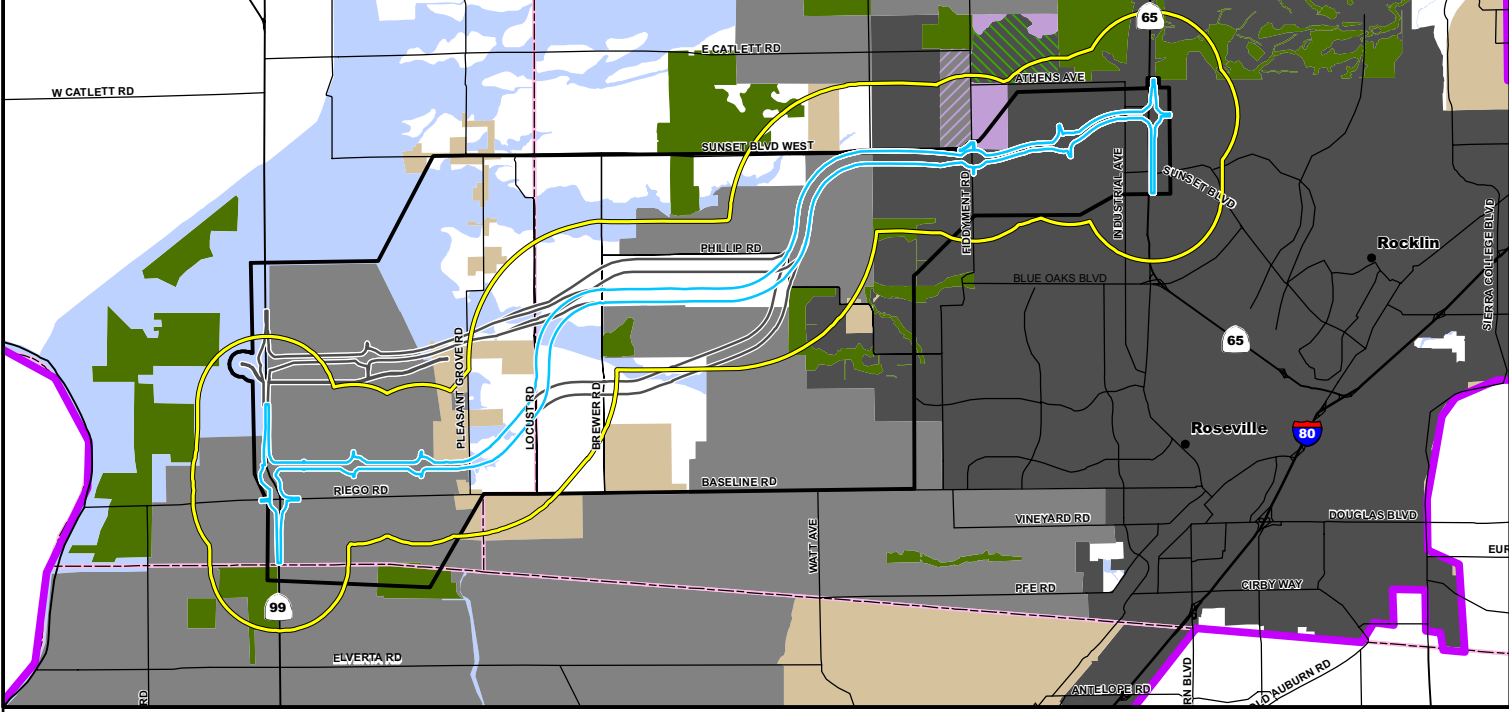
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1-MILE RADII OF INTERCHANGES



1-MILE RADIUS OF ALIGNMENTS



Existing Conservation Areas	100-Year Floodplain	Alternative 3	Radii of Alignments	Potential Interchanges	Conceptual Interchange	Developed or Constrained Land
Developed Unincorporated Areas	Proposed Landfill Expansion	Other Alternatives	Study Area for Secondary and Indirect Impacts	Hypothetical Interchanges	Potential Interchange (Watt Avenue)	Undeveloped Land
Municipal Facilities	Pending Conservation Area	Project Study Area Boundary	Conceptual Interchanges		Hypothetical Interchange	
Planned/Proposed Development	County Boundary					
Existing and Approved Development	City/Town					

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, Alternative 3

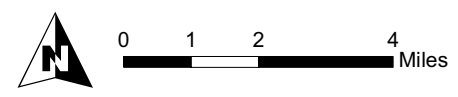
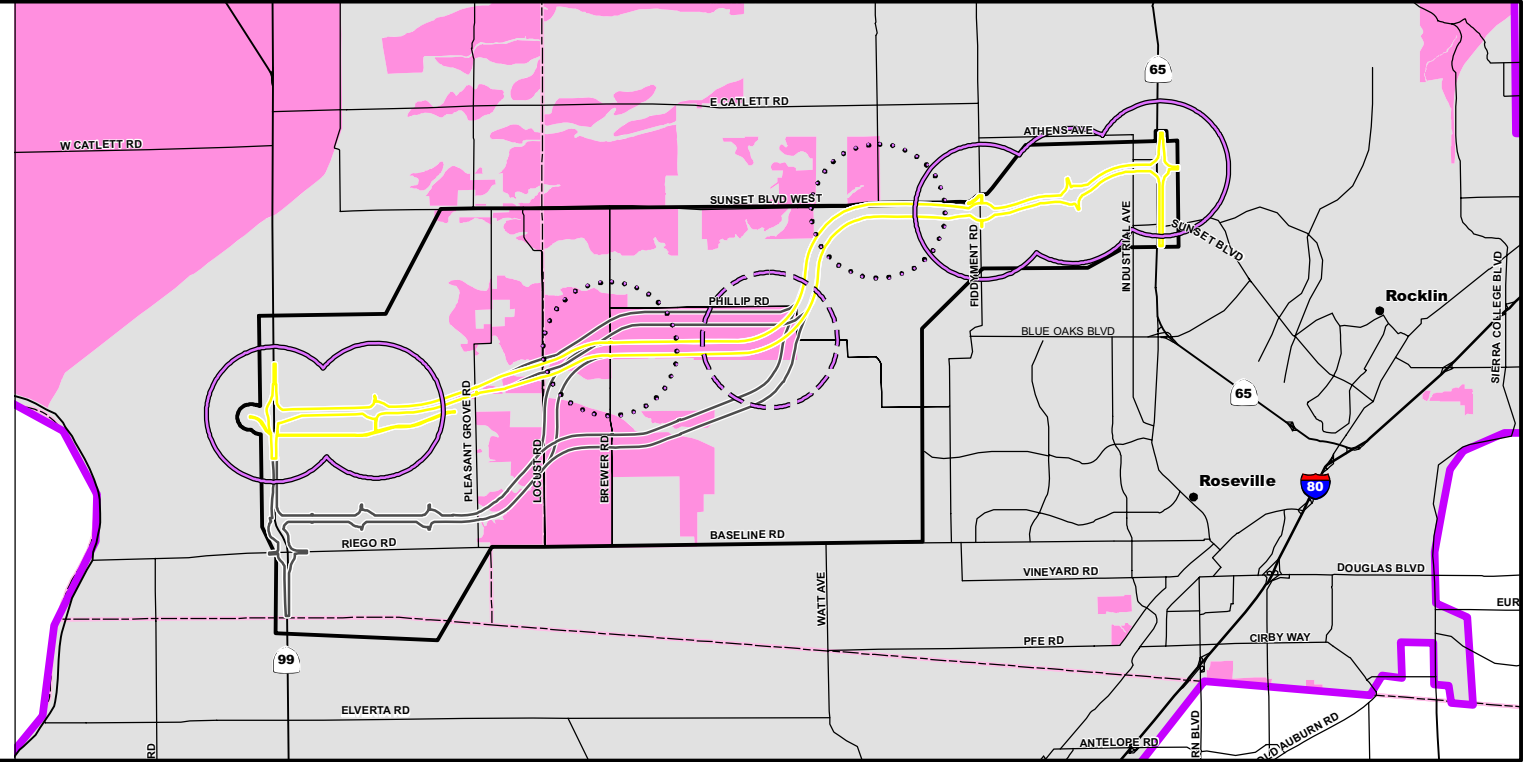
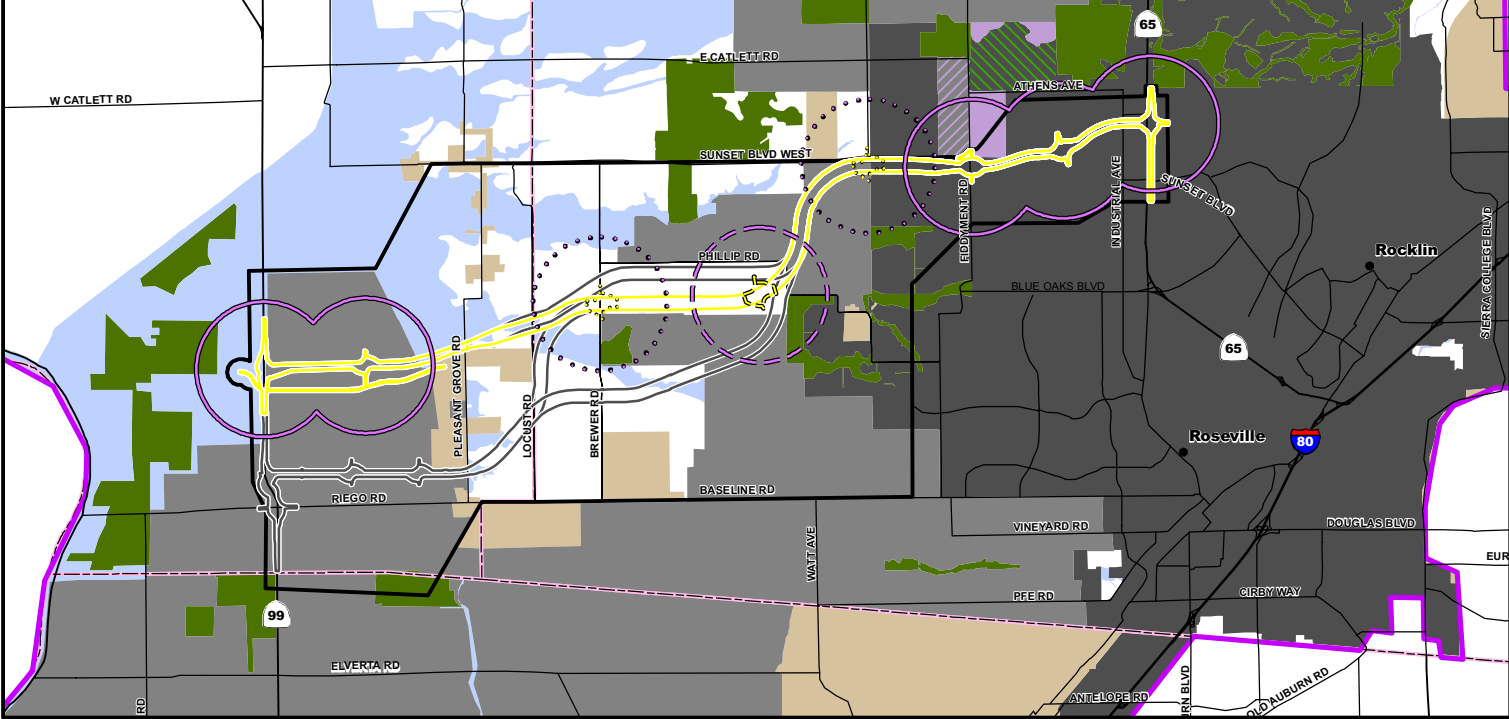


Figure G-8

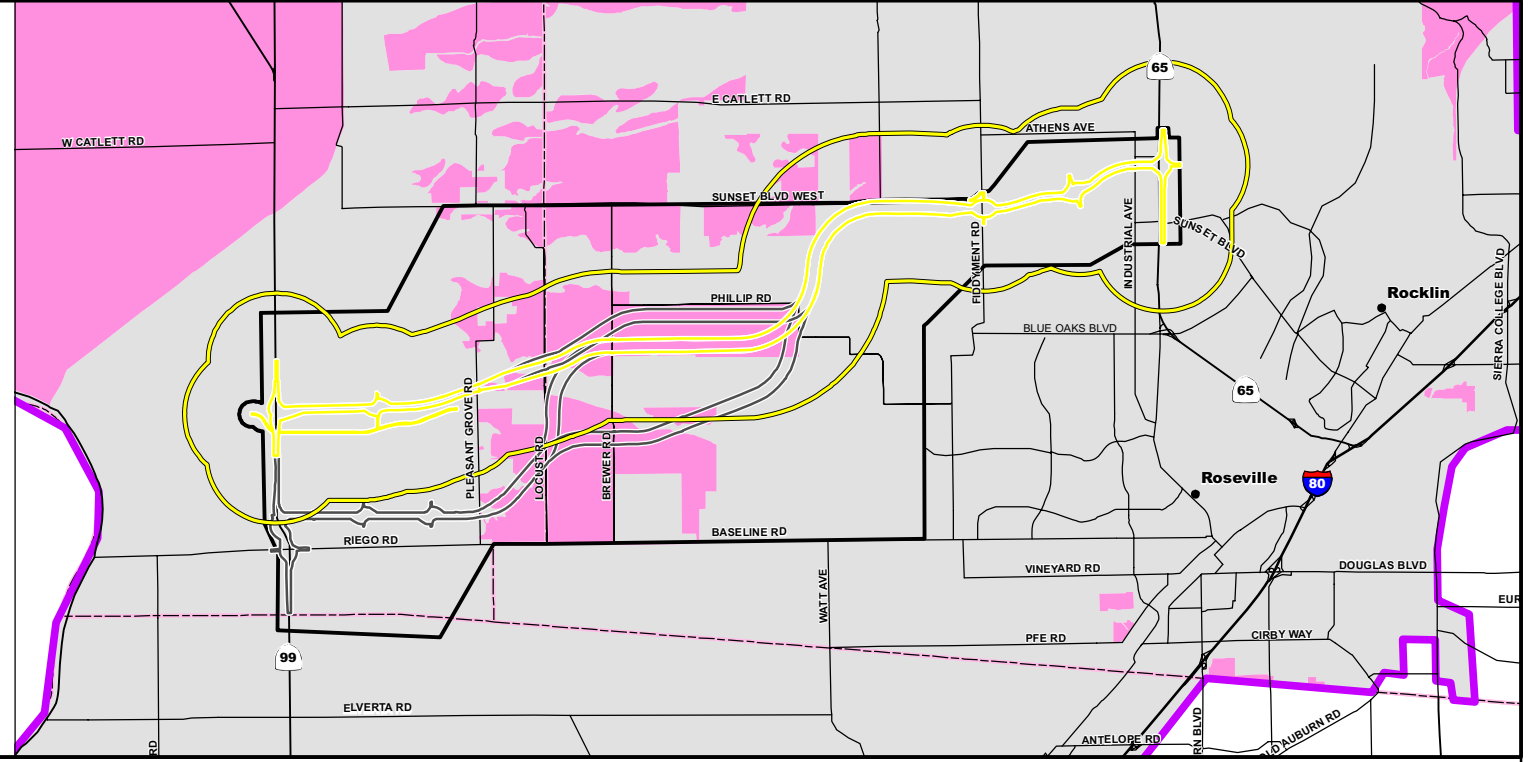
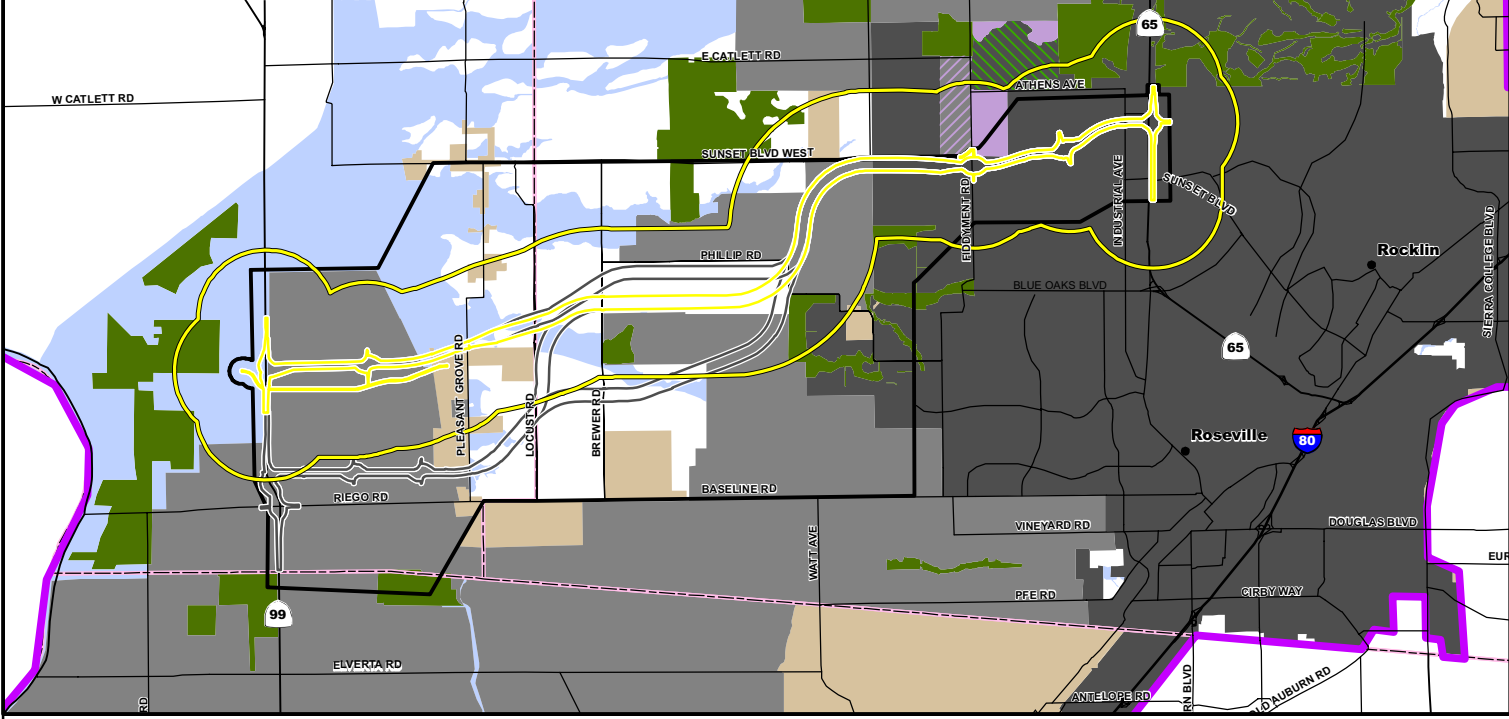
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1-MILE RADII OF INTERCHANGES



1-MILE RADIUS OF ALIGNMENTS



Existing Conservation Areas	100-Year Floodplain	Alternative 4	Radii of Alignments	Potential Interchanges	Conceptual Interchange	Developed or Constrained Land
Developed Unincorporated Areas	Proposed Landfill Expansion	Other Alternatives	Study Area for Secondary and Indirect Impacts	Hypothetical Interchanges	Potential Interchange (Watt Avenue)	Undeveloped Land
Municipal Facilities	Pending Conservation Area	Project Study Area Boundary	Conceptual Interchanges			
Planned/Proposed Development	County Boundary					
Existing and Approved Development	City/Town					

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, Alternative 4

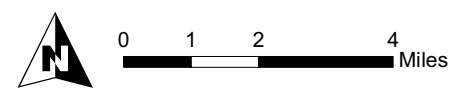
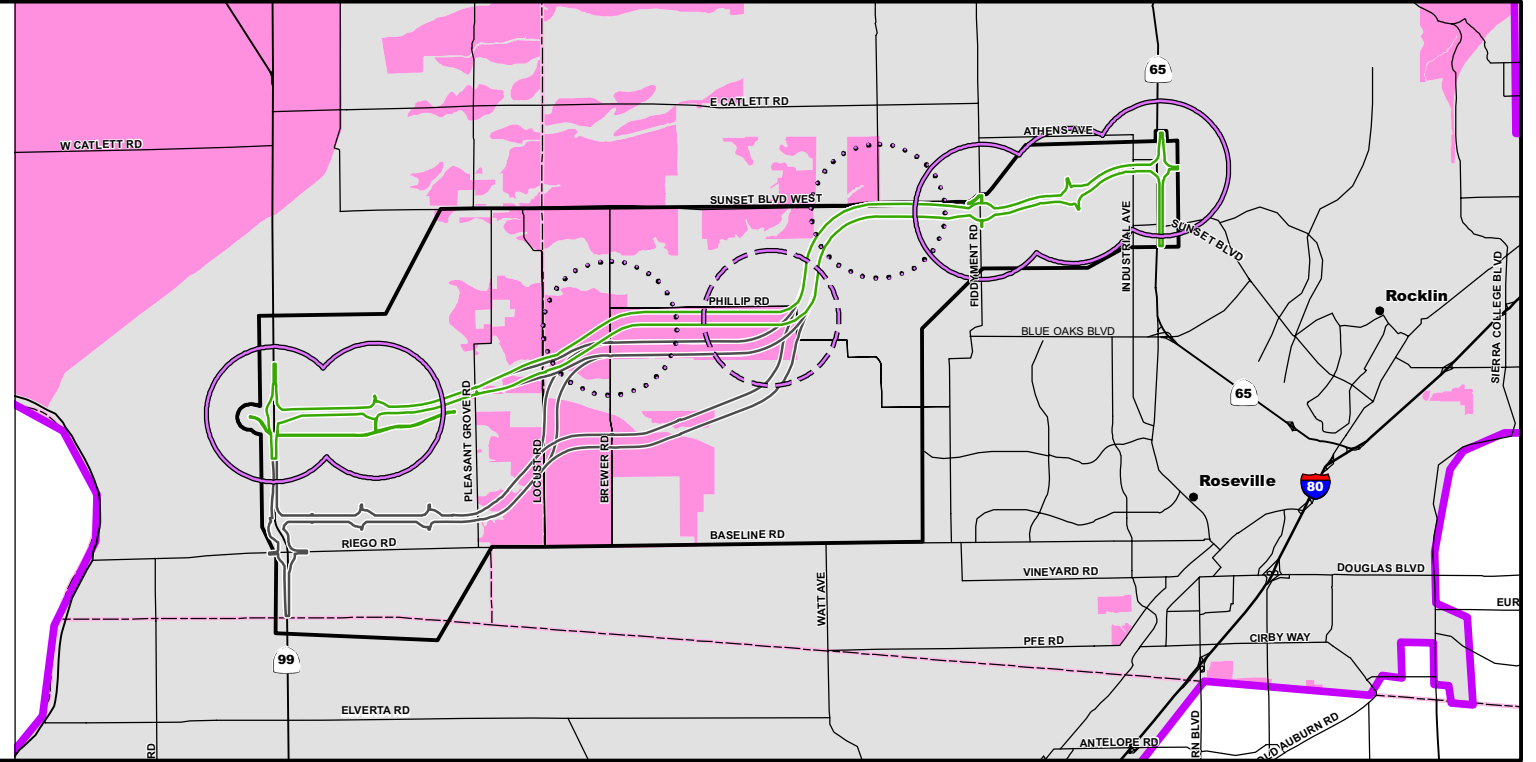
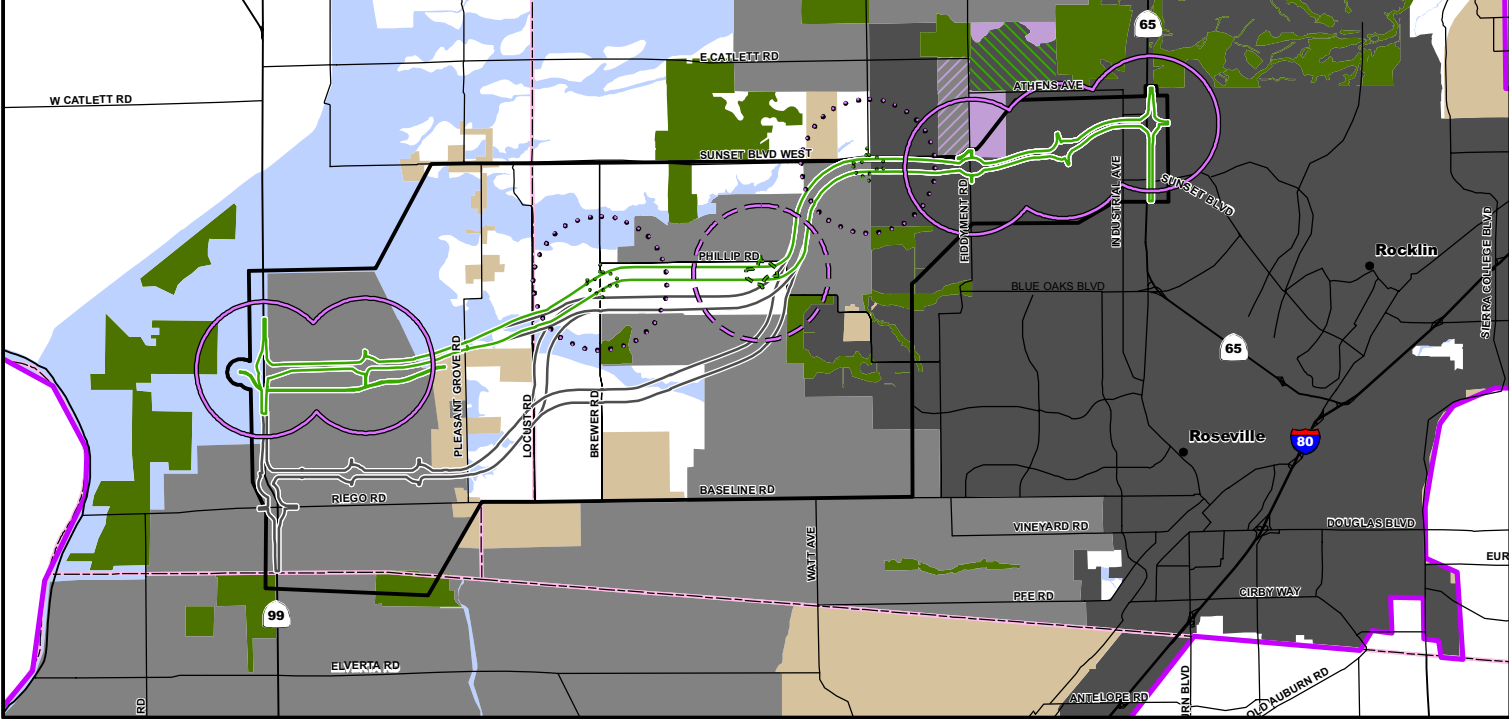


Figure G-9

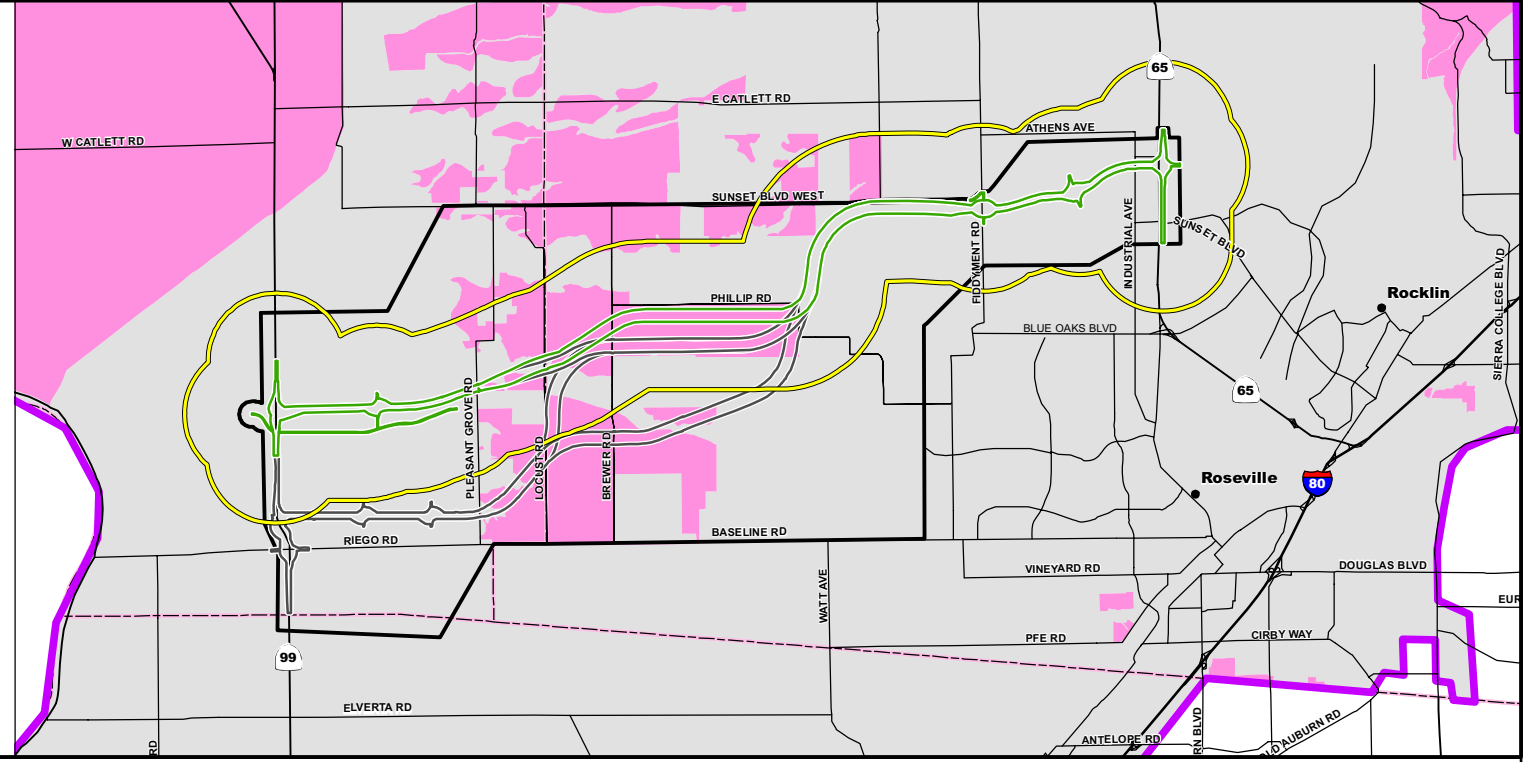
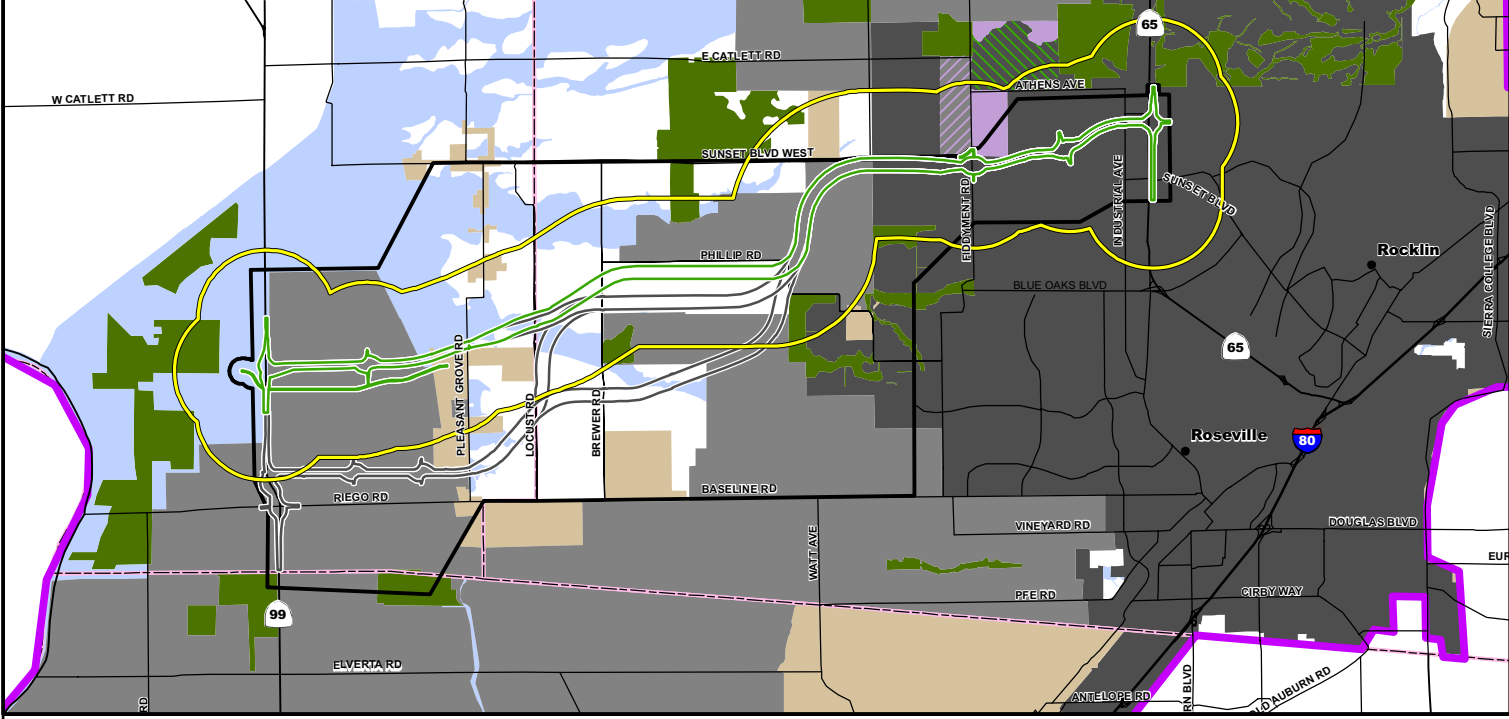
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1-MILE RADII OF INTERCHANGES



1-MILE RADIUS OF ALIGNMENTS



Existing Conservation Areas	100-Year Floodplain	Alternative 5	Radii of Alignments	Potential Interchanges	Radii of Interchanges	Developed or Constrained Land
Developed Unincorporated Areas	Proposed Landfill Expansion	Other Alternatives	Study Area for Secondary and Indirect Impacts	Hypothetical Interchanges	Conceptual Interchange	Undeveloped Land
Municipal Facilities	Pending Conservation Area	Project Study Area Boundary	Conceptual Interchanges	Hypothetical Interchange	Potential Interchange (Watt Avenue)	
Planned/Proposed Development	County Boundary	City/Town			Hypothetical Interchange	
Existing and Approved Development						

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Land Use by Type within 1 Mile, Alternative 5

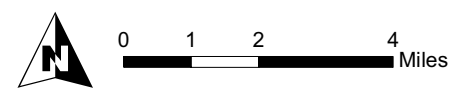


Figure G-10

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Table G-3
Acres in Land Development Categories within 1 Mile of Interchanges and Corridor Alignment Alternatives
(Variant A: Considering Curry Creek Community Plan and SIAP Areas as Existing or Proposed for Development
as per the Draft Tier 1 EIS/EIR)

Area	Existing and Approved Development	Existing Conservation Area	Existing Municipal Facility	Planned/ Proposed Development	Developed Unincorporated	100-Year Floodplain (in undeveloped areas only)	Potentially Developable	Total Acres
Eastern Segment: Acres within 1 Mile of Conceptual Interchanges								
Alternatives 1 through 5	4,536.2	149.1	278.3	241.6	–	–	–	5,205.2
Western Segment: Acres within 1 Mile of Conceptual Interchanges								
Alternatives 1, 2, and 3	–	–	–	4,036.5	337.5	310.9	75.2	4,760.1
Alternatives 4 and 5	–	116.5	–	2,544.8	12.1	1,062.4	–	3,735.8
Watt Avenue Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
Alternative 1 (Option 1 – south)	43.7	11.2	–	1,900.6	–	5.5	49.4	2,010.5
Alternative 1 (Option 2 – north), Alternative 2	266.3	252.3	–	972.0	8.0	–	512.0	2,010.5
Alternatives 3 and 4	80.3	175.4	–	1,062.5	–	–	692.3	2,010.5
Alternative 5	23.5	117.8	–	1,199.1	–	–	670.0	2,010.5
Brewer Road Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
Alternative 1	–	–	–	16.8	560.3	33.0	1,400.3	2,010.5
Alternative 2	–	114.0	–	113.0	185.6	271.7	1,326.1	2,010.5
Alternatives 3 and 4	–	122.8	–	329.6	–	331.0	1,227.0	2,010.5
Alternative 5	–	56.0	–	299.6	–	403.0	1,251.9	2,010.5
Eastern Segment Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
All Alternatives	945.7	17.2	-	583.2	178.1	8.4	277.9	2,010.5
Entire Corridor Alignment Alternatives: Acres within 1 Mile								
Alternative 1	8,245.6	1,449.3	333.9	12,090.0	1,856.9	1,313.4	4,492.1	29,781.2
Alternative 2	8,105.0	1,536.8	333.9	10,933.6	1,631.1	1,603.9	4,544.7	28,689.1
Alternative 3	7,948.0	1,455.4	333.9	10,611.1	1,315.0	1,858.5	5,584.4	29,106.3
Alternative 4	7,948.0	1,333.6	333.9	8,253.7	963.7	3,367.8	4,218.5	26,419.1
Alternative 5	7,901.4	1,366.3	333.9	7,942.0	971.1	3,658.7	4,154.3	26,327.6

Note:

1 No interchanges are proposed in the Central Segment.

of potentially developable land are graphically displayed on Figures G-11 through G-16. A graphic has not been included for land within 1 mile of the hypothetical Eastern Segment interchange, as this interchange is common to all alternatives.

For this analysis, an attempt was made to identify and quantify the amount of land in the new analysis areas that is now:

- neither *developed*
- nor *planned/approved or proposed for development*,
- nor *constrained from future development* by such features as habitat conservation areas, the 100-year floodplain, or major municipal facilities (such as the Roseville Retention Basin).

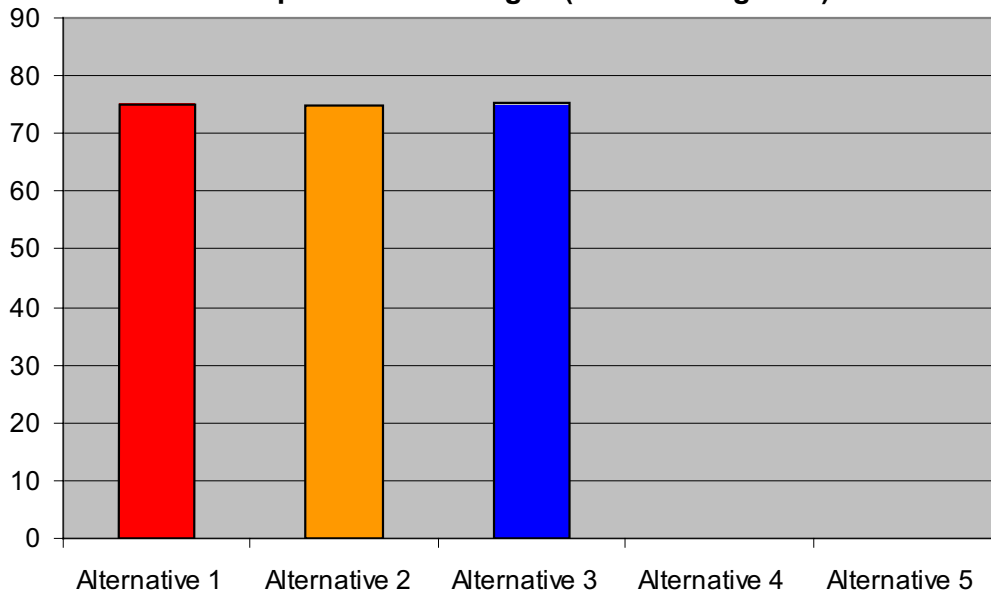
The remaining land within these new analysis areas, termed for the purposes of this analysis “Potentially Developable Land,” could then be reasonably expected to be the areas most vulnerable to unplanned future development pressures resulting from construction of Placer Parkway and the hypothetical interchanges described above.

GIS-based land use information developed for the Draft Tier 1 EIS/EIR was used for this analysis and is the basis for most of the acreage tabulations presented on the accompanying figures and tables. For the purposes of this analysis the land use information that was analyzed in the Draft Tier 1 EIS/EIR has been termed “Variant A” within this document. Another variation of the Draft Tier 1 EIS/EIR land use tabulations was also considered, however, as a refinement of the land use mapping conducted previously. Under this refinement, land uses in two areas, shown on Figure G-1—a portion of the SIAP zoned Farm, designated Agricultural (80-acre minimum) and the Curry Creek Community Plan area—were revised. Variant B was developed to recognize planned/proposed development areas identified in the Draft Tier 1 EIS/EIR that are not zoned for development and for which no development proposals have been promulgated, and to include these areas as Potentially Developable Land. In both of these areas, additional land was taken from the category of planned or proposed development and moved to the Potentially Developable category. This was done to acknowledge additional growth inducement potential in these two areas, based on the current status of development planning in those areas. The reasons for this revision are described below, and these areas are shown on Figure G-17.

The SIAP (1997) is the only adopted Area Plan within 1 mile of the study areas of interest (defined in Section 2.2.1) that includes a substantial amount of land planned to remain in agricultural use, with 20-acre or 80-acre minimum parcel sizes. Portions of this agriculturally designated area have been proposed for development (such as the area south of Sunset Boulevard West that now falls within the PRSP area) (Figure G-1) or have become conservation areas or municipal service facilities since the plan was adopted. However, the area north of Sunset Boulevard West and west of Fiddymont Road remains in agricultural zoning and no alternative development plans have been proposed at this time, even though much of the area is controlled by development interests and may be planned for development or for environmental mitigation for development in other areas (Thompson, 2008). Given the agricultural zoning and lack of specific development proposals, it seemed appropriate to consider this agriculturally zoned land as vulnerable to potential future development pressure, even though it lies within the boundaries of an adopted Area Plan. (It should be noted that consideration of this additional Potentially Developable Land would affect all project alternatives equally, since it lies in the Eastern Segment, where all alternatives share a common corridor alignment.)

Similarly, it was considered that the Curry Creek area could be viewed as Potentially Developable Land, rather than land already proposed for development because, of all the Community and Specific Plan areas considered in the Draft Tier 1 EIS/EIR, only Curry Creek has not initiated preparation of an actual

Proposed Interchanges (Western Segment)



Source: Mara Feeney & Associates, Dec. 2007



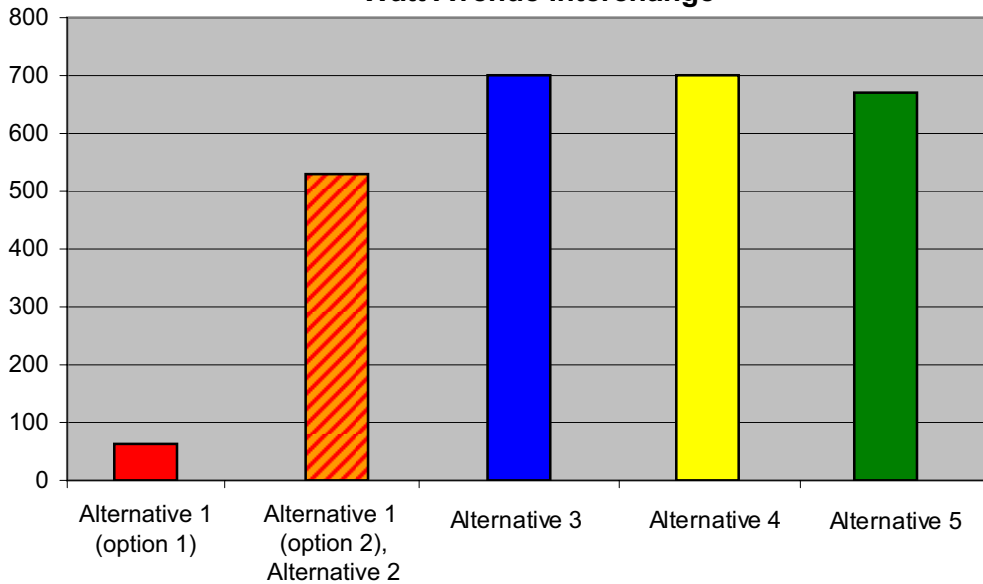
Tier 1 EIS/EIR

Acres of Potentially Developable Land Within
1 Mile of Proposed Western Segment Interchanges

Figure G-11

January 2008

Watt Avenue Interchange



Source: Mara Feeney & Associates, Dec. 2007



Tier 1 EIS/EIR

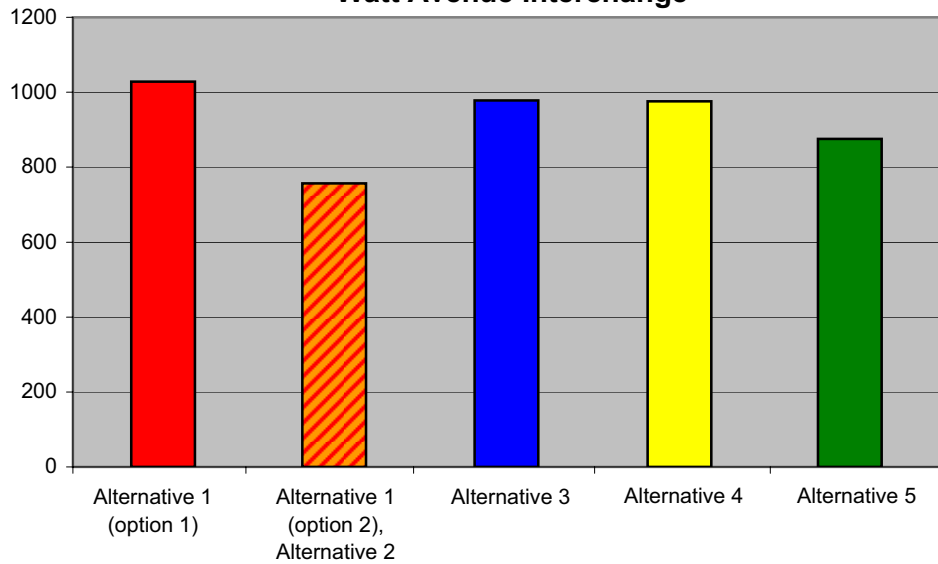
Acres of Potentially Developable Land Within
1 Mile of Potential Watt Avenue Interchange

Figure G-12

January 2008

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Watt Avenue Interchange



Source: Mara Feeney & Associates, Dec. 2007



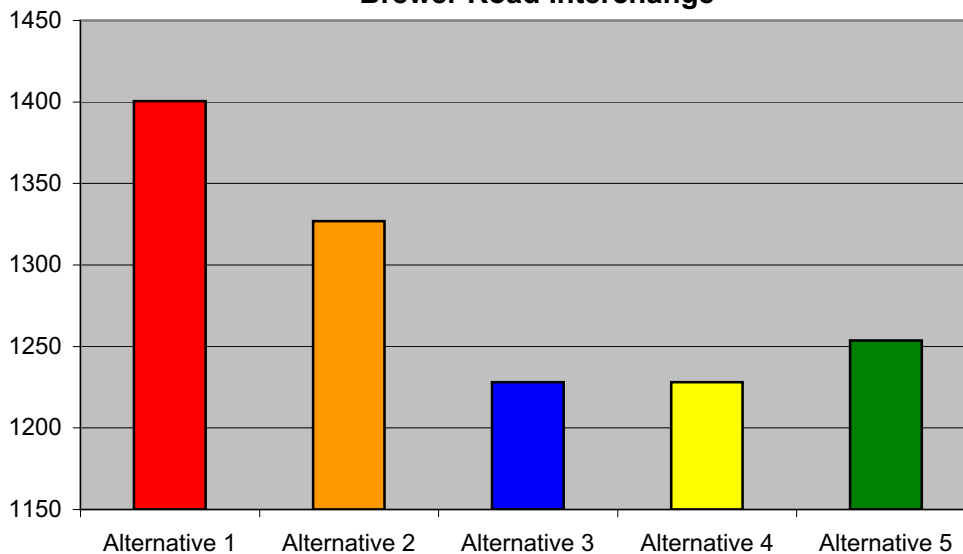
Tier 1 EIS/EIR

Acres of Potentially Developable Land Within
1 Mile of Watt Avenue Interchange
(Considering Curry Creek Community Plan Area/
Portion of SIAP as Undeveloped)

Figure G-13

January 2008

Brewer Road Interchange



Source: Mara Feeney & Associates, Dec. 2007



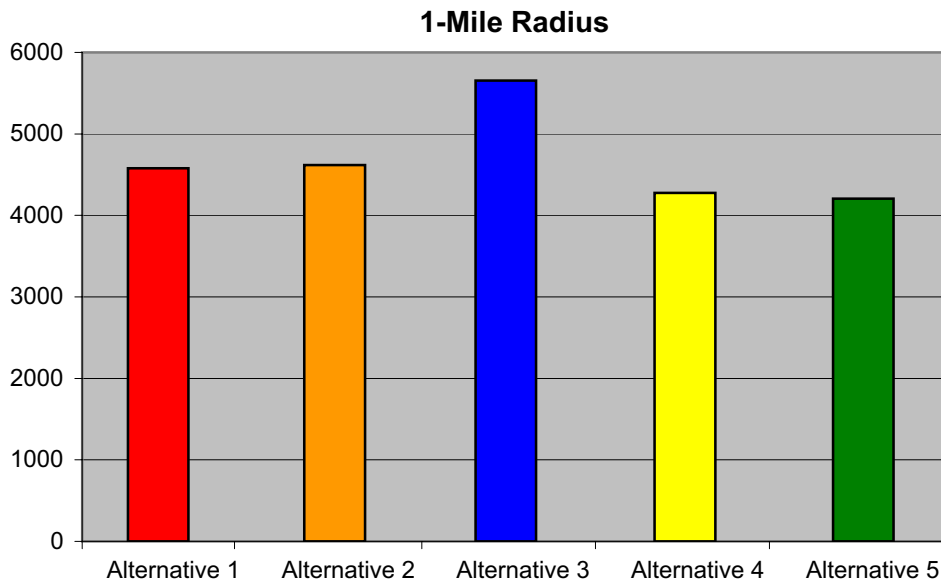
Tier 1 EIS/EIR

Acres of Potentially Developable Land Within
1 Mile of Brewer Road Interchange

Figure G-14

January 2008

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Source: Mara Feeney & Associates, Dec. 2007

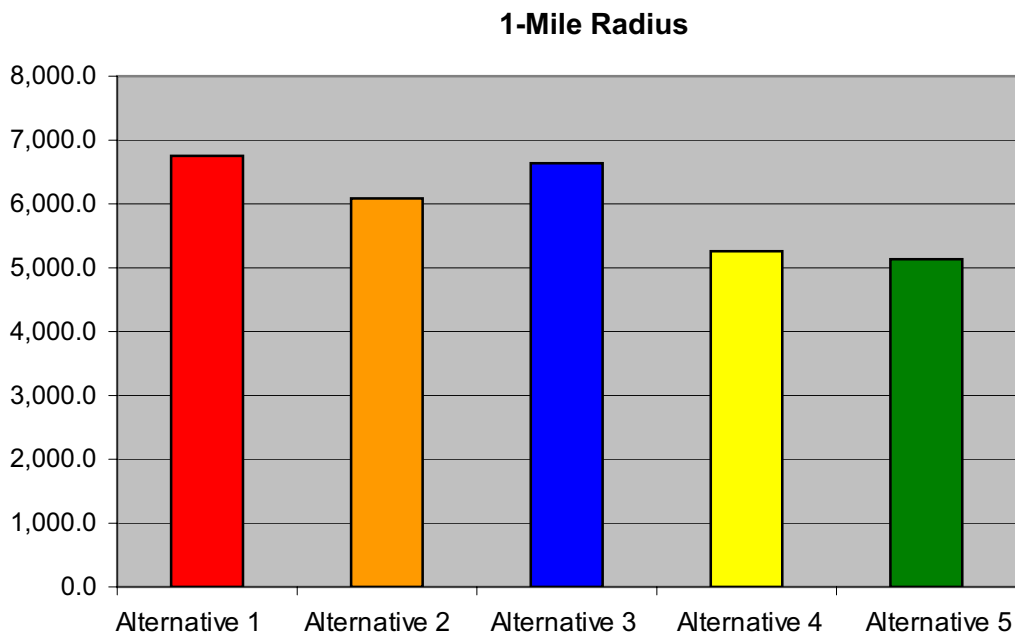


Tier 1 EIS/EIR

Acres of Potentially Developable Land Within
1 Mile of Entire Alignment

Figure G-15

January 2009



Source: Mara Feeney & Associates, April 2008



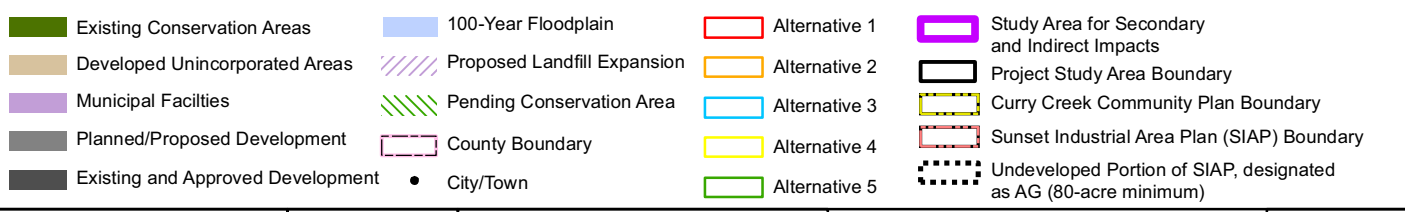
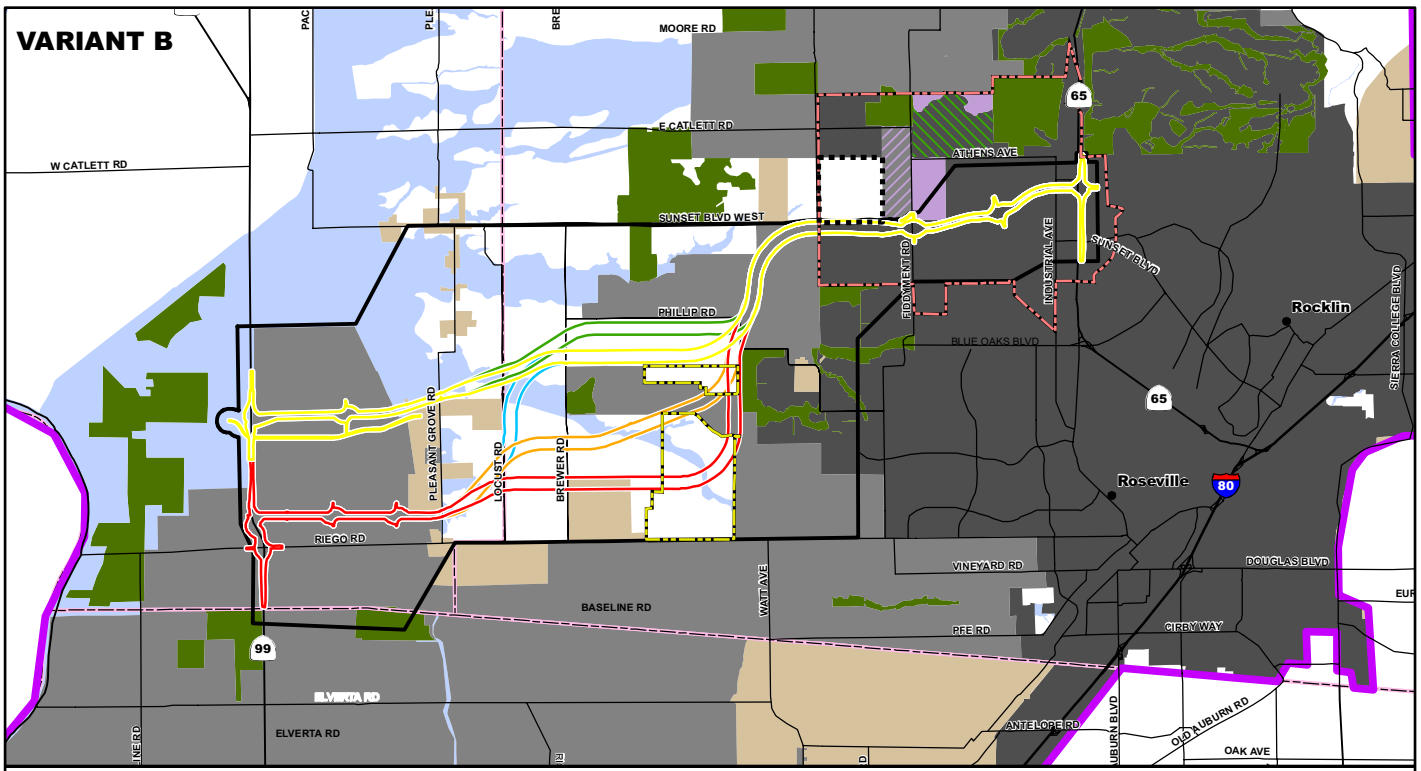
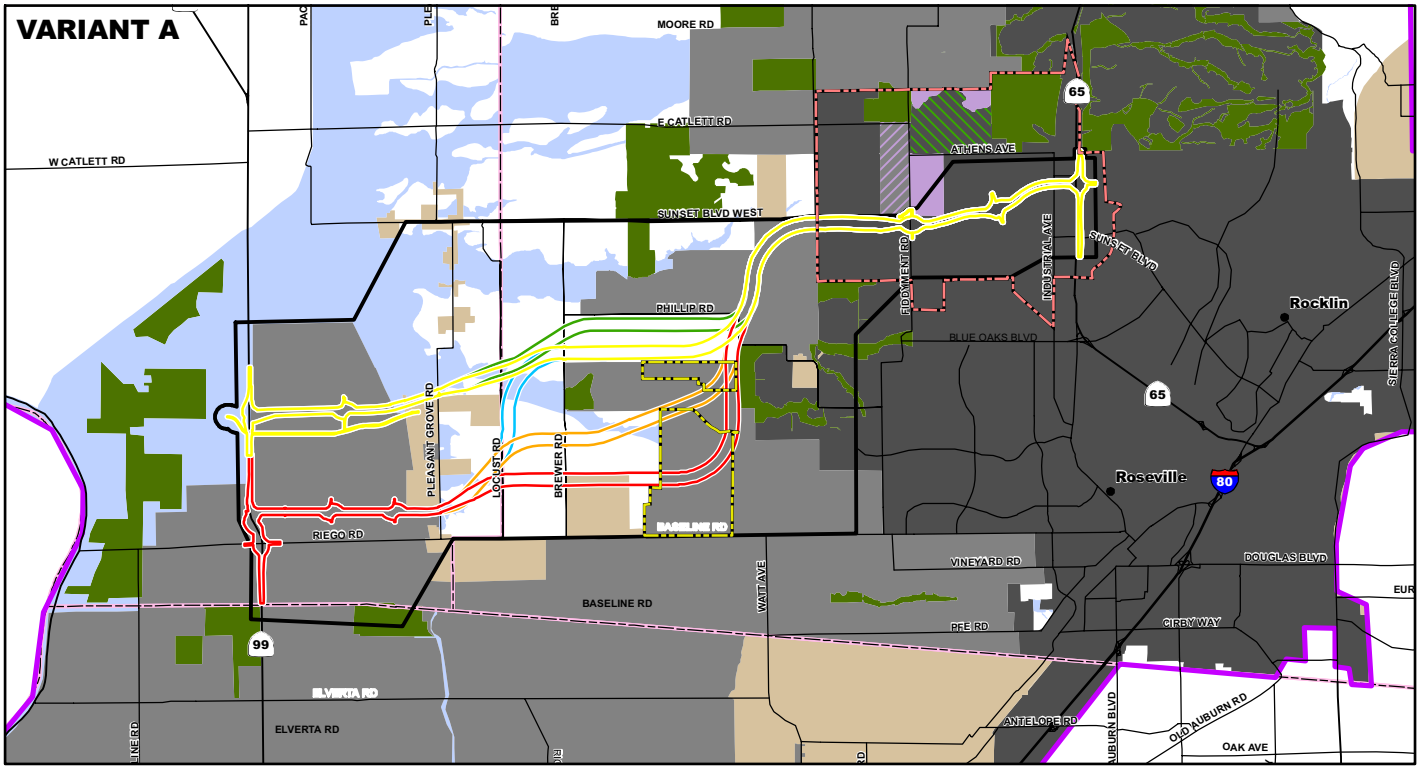
Tier 1 EIS/EIR

Acres of Potentially Developable Land Within
1 Mile of Entire Alignment
(Considering Curry Creek Community Plan/
Portion of SIAP as Undeveloped)

Figure G-16

January 2009

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	TIER 1 EIS/EIR	Variant A and Variant B			Figure G-17
					January 2008

Source: North Fork Associates; Mara Feeny Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville

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proposed Specific Plan.⁴ Since no development applications have been submitted for this area, it seemed appropriate to consider it as Potentially Developable and therefore potentially subject to growth inducement pressures in the future. Curry Creek is primarily located within what would be part of the proposed Placer County Conservation Plan (PCCP)⁵ Development Transition Area (Figure G-18), with the exception of stream corridors that would be part of the Reserve Acquisition Area; however, there are no development plans pending.

Land use calculations for Variant B (assuming portions of the SIAP and all of Curry Creek as undeveloped) are reflected in Table G-4 and on Figures G-13 and G-16 and discussed in the accompanying text.

Acreage tabulations (both with and without Variant B, described previously) should be considered “worst case,” since they assume that growth could occur on all Potentially Developable Land within 1 mile of the edges of the identified corridors for each alignment, as well as the land within the corridors themselves. This addresses the U.S. EPA’s concern that if the no-development buffer zones cannot be guaranteed, the analysis should reflect this. This approach does not assume any potential reduction in impacts that could occur if the proposed buffer is implemented.

In terms of potential impacts on natural resources, the most sensitive of the land development categories would be Potentially Developable Land. This is because Developed/Unincorporated land is already developed, albeit with relatively low-intensity uses, and Planned/Approved or Proposed Development is land that has already been designated via local General Plans or has a current development proposal underway for development and is undergoing environmental review and mitigation planning for habitat impacts, as appropriate. Furthermore, most of the land already planned/approved or proposed for development is expected to be developed before 2020, when Placer Parkway would be built. For these reasons, this analysis focuses on the Potentially Developable Land within 1 mile of proposed Placer Parkway interchanges, potential Watt Avenue interchanges, hypothetical interchanges in the Central and Eastern segments, and the entire length of each corridor alignment alternative. The sections below discuss land in each of these vicinities, with reference to the land use calculations summarized on Tables G-3 and G-4.

This expanded evaluation of the comparative growth inducement potential associated with each Placer Parkway corridor alignment alternative provides a framework for discussing the potential secondary and indirect impacts to natural resources associated with growth that could occur as a result of the project. Secondary and indirect impacts are discussed further in Section 4.0.

Potentially Developable Land Within a 1-mile Radius of Proposed Interchanges

In the Western Segment, the 1-mile radii from conceptual (proposed) interchange locations associated with Alternatives 1, 2, and 3 encompass more land (4,760.1 acres) than Alternatives 4 and 5 (3,735.8 acres). The three southerly corridor alignment alternatives include two conceptual interchanges (in addition to the SR 70/99 connection) in the proposed SPSP area. The two northern corridor alignment alternatives include only one conceptual interchange (because of 1-mile minimum spacing requirements)

⁴ At the time this analysis was prepared, the developer for the proposed PRSP has suspended work for approximately 3 months, for reasons related to estate planning. The application submitted to the City of Roseville has not been withdrawn. In any event, the portion of Placer Parkway that traverses the proposed PRSP is common to all corridor alignment alternatives and its presence or absence would not be a basis for determining differences in the potential for growth inducement among alternatives.

⁵ The proposed PCCP has identified land that is primarily proposed for acquisition as conservation areas (reserve acquisition areas) and other land that is proposed as partial conservation areas where some development (current agency thinking is that approximately 40 percent of land could be developed although this is not yet finalized) would be permitted (development transition areas).

in this segment. The southerly alignment corridors have 77.4 acres of Potentially Developable Land within a 1-mile radius of the conceptual interchanges. The northerly corridor alignment alternatives have no Potentially Developable Land within 1 mile of the conceptual interchange and the SR 70/99 connection. This is illustrated on Figure G-11.

The 7-mile-long Central Segment between Pleasant Grove Road and approximately 2,300 feet north of Pleasant Grove Creek in Placer County are not addressed in this portion of the analysis, because no interchanges are proposed as part of the project in this area.

Because the corridor alignments proposed in the Eastern Segment are identical for all alternatives, there are no differences in the amount of Potentially Developable Land. As shown in Table G-3, no corridor alignments in the Western Segment have Potentially Developable Land within 1 mile of the conceptual interchange locations. All of this land falls into the Planned/Proposed Development category.

In summary, with respect to Potentially Developable Land within a 1-mile radius of interchanges proposed in the Draft Tier 1 EIS/EIR, the above analysis shows that Alternatives 1, 2, and 3 have 75.2 acres of Potentially Developable Land and Alternatives 4 and 5 have no Potentially Developable Land.

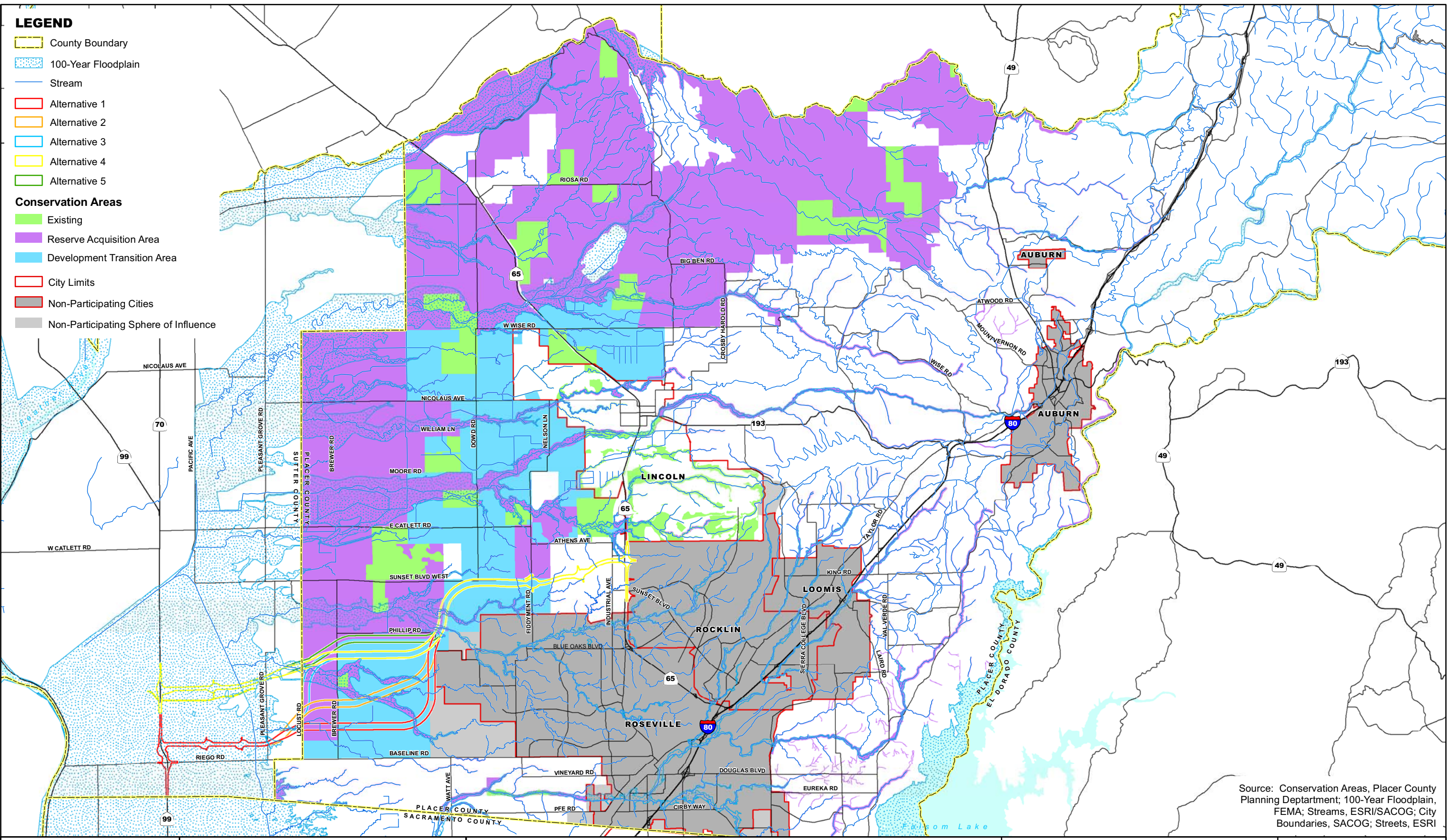
Potential Watt Avenue Interchange

Chapter 7 of the Draft Tier 1 EIS/EIR described assumptions concerning the possible future extension of Watt Avenue and the potential for a possible future connection with Placer Parkway. Such a connection is not proposed as part of the Placer Parkway project, and if proposed by others it would be analyzed as a separate project, with impacts mitigated as appropriate. It is considered to have the potential to occur, however, since several local jurisdictions are contemplating a northerly extension of Watt Avenue at some time in the future in their current planning discussions and documents.

Table G-3 and Figure G-12 include the acreages of Potentially Developable Land within a 1-mile radius of each of the assumed Watt Avenue interchange locations. These include the two optional locations that were examined along the Alternative 1 corridor alignment, in the Draft Tier 1 EIS/EIR. Alternative 1/Option 1 (south) would affect the smallest amount of Potentially Developable Land (49.4 acres), so it could be considered to have the least growth inducement potential within the 1-mile radius of this particular location. As shown on Table G-3, a Watt Avenue interchange with Alternatives 3 and 4 would encompass the greatest amount of Potentially Developable Land (692.3 acres) within a 1-mile radius, followed by Alternative 5 (670 acres) and Alternative 1/Option 2 (north) and Alternative 2 (512 acres).

Planned/Proposed Development in the vicinity of Alternative 1/Option 1 (south) comprises mainly the proposed Sierra Vista Specific Plan and Curry Creek Community Plan. As explained above, of all the areas considered as Planned/Proposed Development in the Draft Tier 1 EIS/EIR, only Curry Creek has not initiated preparation of a Plan. Thus, a Watt Avenue connection on the Alternative 1 corridor alignment at the Option 1 location could provide more stimulus to development pressures in the proposed Curry Creek Community Plan area than in other proposed development areas, a possibility that is not reflected in the acreage numbers presented in Table G-3, but is reflected in the numbers shown in Table G-4. As shown on Table G-4 and illustrated on Figure G-13, under this variant Alternative 1/Option 1 (south) would have the largest acreage of Potentially Developable Land (1,016.8 acres) within a 1-mile radius versus Alternative 5, which would have the smallest amount (870.4 acres). In addition, there is potential for greater impacts to be associated with Alternative 1, because local government entities already have expressed preference for a Watt Avenue interchange in the vicinity of an extension of Blue Oaks Boulevard to the north. This could result in eliminating the Option 1 location from further consideration—or it could result in the eventual construction of both interchange options on the Alternative 1 corridor alignment, which would further increase the amount of Potentially Developable Land accessed via Watt Avenue connections on the Alternative 1 corridor alignment (multiple

Map Document: (U:\GIS\Placer_Parkway\PlacerParkway2007_28066595\MXD\Current Working Documents\PCCP.mxd) 4/30/2008 -- 3:57:34 PM KLawrence



Source: Conservation Areas, Placer County Planning Department; 100-Year Floodplain, FEMA; Streams, ESRI/SACOG; City Boundaries, SACOG; Streets, ESRI



TIER 1 EIS/EIR

Ad Hoc Committee PCCP Alternative 4 (11-2-07)

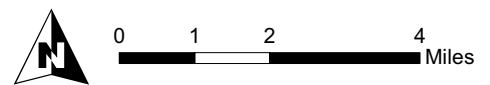


Figure G-18

January 2009

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Table G-4
Acres in Land Development Categories within 1 Mile of Interchanges and Corridor Alignment Alternatives
(Variant B: Considering Curry Creek Community Plan Area and Agricultural Portion of SIAP as “Potentially Developable Land”)

1-Mile Radii of Intersections	Existing and Approved Development	Existing Conservation Area	Municipal Facility	Planned/ Proposed Development	Developed Unincorporated	100-Year Floodplain (in Undeveloped Areas Only)	Potentially Developable	Total
Western Segment: Acres within 1 Mile of Proposed Interchanges								
Alternative 1	—	—	—	4,036.5	337.5	310.9	75.2	4,760.1
Alternative 2	—	—	—	4,036.5	337.5	310.9	75.2	4,760.1
Alternative 3	—	—	—	4,036.5	337.5	310.9	75.2	4,760.1
Alternative 4	—	116.5	—	2,544.8	12.1	1,062.4	—	3,735.8
Alternative 5	—	116.5	—	2,544.8	12.1	1,062.4	—	3,735.8
Eastern Segment: Acres within 1 Mile of Proposed Interchanges								
Alternatives 1 through 5	4,376	149.1	278.3	241.6	—	—	160.2	5,205.2
Watt Avenue Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
Alternative 1 (Option 1)	43.7	11.2	—	784.0	—	154.7	1,016.8	2,010.5
Alternative 1 (Option 2), Alternative 2	266.3	252.3	—	744.6	7.9	—	739.4	2,010.5
Alternative 3	80.3	175.4	—	803.5	—	—	951.3	2,010.5
Alternative 4	80.3	175.4	—	803.5	—	—	951.3	2,010.5
Alternative 5	23.5	117.8	—	998.7	—	—	870.4	2,010.5
Brewer Road Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
Alternative 1	—	—	—	16.8	560.3	33.0	1,400.5	2,010.5
Alternative 2	—	114.0	—	113.0	185.6	271.7	1,326.1	2,010.5
Alternative 3	—	122.8	—	329.6	—	331.0	1,227.0	2,010.5
Alternative 4	—	122.8	—	329.6	—	331.0	1,227.0	2,010.5
Alternative 5	—	56.0	—	299.6	—	403.0	1,251.9	2,010.5
Eastern Segment Interchange: Acres within 1 Mile (interchange is not proposed, but identified for this analysis per agency request)								
All Alternatives	517.4	17.2	-	582.7	173.3	8.4	711.5	2,010.5
1 mile radii of alignments: Acres within 1 Mile								
Alternative 1	7,592.6	1,449.3	333.9	10,414.1	1,856.9	1,469.7.0	6,664.7	29,781.2
Alternative 2	7,452.1	1,536.8	333.9	10,001.2	1,631.1	1,709.3	6,024.7	28,689.1
Alternative 3	7,295	1,455.4	333.9	10,248.6	1,315	1,873.1	6,585.2	29,106.3
Alternative 4	7,295	1,333.6	333.9	7,893.6	963.7	3,380.9	5,218.4	26,419.1
Alternative 5	7,248.4	1,366.3	333.9	7,649.5	971.1	3,658.7	5,099.7	26,327.6

connections on the other four corridor alignment alternatives would be unlikely because of curve radius considerations; only Alternative 1 has a north-south segment long enough to accommodate two such interchanges).

Hypothetical Additional Interchanges

No interchanges are proposed between Pleasant Grove Road and Fiddymment Road as part of the Placer Parkway project. The Watt Avenue interchange in this area is discussed in the Draft Tier 1 EIS/EIR to reflect local agency expressions of intent, although it is not currently planned or proposed by any agency. No other interchanges are considered reasonably foreseeable.

As discussed above, U.S. EPA/USCOE have asked how additional interchanges, although not proposed under the Placer Parkway project, or planned or currently under consideration by any agency, could affect the choice between the Placer Parkway corridor alignment alternatives. In order to determine the potential growth inducement effects that such hypothetical future interchanges between Pleasant Grove Road and Fiddymment Road might have on the surrounding area, two additional hypothetical interchanges are evaluated—one in the Central Segment in the vicinity of Brewer Road, which is approximately 2 miles east of the closest Sutter County interchange, and one in the Eastern Segment, approximately 1 mile west of the proposed Fiddymment Road interchange.

Central Segment

For the purposes of this exercise, the hypothetical interchange was located roughly halfway between the easternmost conceptual interchange in the Western Segment of each corridor alignment and the contemplated potential Watt Avenue interchange locations, as shown on Figures G-5 through G-10. This location would be approximately where Brewer Road would intersect the future Placer Parkway corridor. This location meets the 2-mile interchange spacing requirement for rural interchanges. As shown in Table G-3 and illustrated on Figure G-14, a 1-mile radius from such an interchange would encompass the largest amount of Potentially Developable Land along the Alternative 1 corridor alignment (1,400.3 acres), followed by Alternative 2 (1,326.1 acres). The smallest amounts of Potentially Developable Land lie within a 1-mile radius of the Brewer Road interchange on the Alternative 3, 4, and 5 corridor alignments (1,227 acres on Alternatives 3 and 4 and 1,251.9 acres on the Alternative 5 corridor alignment).

Eastern Segment

A new intersection on the Placer Parkway corridor alignment near a hypothetical extension of Dowd Road in the Eastern Segment would affect all corridor alignment alternatives identically. As shown on Table G-3, the 2,010.5 acres of land within 1 mile of this intersection would include an estimated 277.9 acres of Potentially Developable Land. When Variant B is considered, i.e., the agriculturally zoned land within the SIAP that has not been proposed for development is considered as Potentially Developable, this acreage increases to 706.7 acres for all alternatives, as shown in Table G-4.

Potentially Developable Land Within 1 mile Along Corridor Alignment Alternatives

The analysis above examines growth inducement potential associated with a series of interchange locations, including the proposed interchanges, a potential future Watt Avenue interchange, and hypothetical connections at Brewer Road and west of Fiddymment Road. In addition, Potentially Developable Land within 1 mile of the entire length of each corridor alignment alternative was evaluated. Note that this analysis does not assume the presence of no-development buffer zones, reflecting the fact that the 500- and 1,000-foot buffer cannot be guaranteed in the future.

Because the total length of each corridor alignment alternative is different, the total acreage also differs, ranging from 26,327.6 acres for Alternative 5 (the shortest alignment), to 29,781.2 acres for Alternative 1

(the longest alignment). The largest amount of Potentially Developable Land within a 1-mile limit is found along Alternative 3 (5,584.4 acres), followed by Alternatives 2 and 1 (4,544.7 and 4,492.1 acres, respectively). The smallest amount of Potentially Developable Land lies within 1 mile of the northerly alignments (Alternatives 4 and 5, with 4,218.5 and 4,154.3 acres, respectively), with Alternative 5 having the least amount of Potentially Developable Land. This is illustrated in bar graph form on Figure G-15.

Figure G-16 illustrates the slight comparative changes that result when Variant B is considered. Under this variant, as shown in Table G-4, Alternative 5 would affect the least Potentially Developable Land (5,099.7 acres) and Alternative 1 would affect the most (6,664.7 acres).

Potentially Developable Land on Reason Farms Panhandle

All proposed corridor alignment alternatives cross a portion of the City of Roseville Retention Basin's southeast quadrant (Figure 2 of the Partially Revised Draft Tier 1 EIS/EIR), known as the Reason Farms Panhandle area. As a result of the proposed location of the Parkway build alternatives, the Panhandle area would be effectively bisected under all alternatives, leaving an area of between 123 and 136 acres southeast of Placer Parkway cut off from the rest of the retention basin property. This area would therefore be subject to development pressure if adjacent proposed development occurs. It is also possible that this acreage would in any event be subject to development pressure without the Parkway, as this particular area is not planned for retention basin functions. The acreage of additional land would vary slightly by alternative: 123 acres for Alternative 1, 124 acres for Alternative 2, 131 acres for Alternatives 3 and 4, and to 136 acres for Alternative 5.

Conclusions

The Draft Tier 1 EIS/EIR growth inducement analysis is based on both qualitative and quantitative evaluations. A variety of qualitative analytical approaches and methodologies concluded that Placer Parkway would be growth inducing, but that its growth-inducement potential would be limited by a number of factors. These include the anticipated residential build-out of approved and proposed developments by 2040 regardless of Parkway construction, and an assumption that there would not be substantial differences in growth inducement potential (and therefore in the potential for secondary and indirect impacts) among the corridor alignment alternatives. The MEPLAN analysis supported the qualitative conclusions and included detailed projections, indicating that the southern corridor alignments (Alternatives 1, 2, and 3) would attract somewhat higher numbers of households and jobs from the rest of the region to the local project vicinity than northern corridor alignments (Alternatives 4 and 5).

Based on recommendations in U.S. EPA's September 25, 2007 comment letter on the Draft Tier 1 EIS/EIR and clarifying discussions from the November 7, 2007 interagency meeting, additional GIS-based analyses were conducted, as described above. This new quantitative analysis generally supports the earlier findings that the differences among the corridor alignment alternatives are not substantial in terms of their growth-inducement potential. It also supports the MEPLAN findings that indicate that Alternatives 4 and 5 have less potential to induce growth than Alternatives 1 through 3. Alternatives 1 through 3 would attract more households and jobs than Alternatives 4 and 5 and would also provide new access to more Potentially Developable Land. Alternative 5 would provide the least amount of access to Potentially Developable Land.

The analysis shows that the future construction of an interchange with an extension of Watt Avenue could result in more growth inducement than would occur if such an interchange were not constructed. This supports the Draft Tier 1 EIS/EIR conclusions (pages 5-16 through 6-17), which state that a new interchange at Watt Avenue would be growth inducing because it would provide access to an area that is not currently developed. As shown in Figure G-12, all of the build alternatives would provide access to large areas of Potentially Developable Land with the construction of a Watt Avenue interchange, except for Alternative 1, Option 1. Although Alternative 1, Option 1, has a significantly smaller area of Potentially Developable

Land associated with the potential Watt Avenue interchange, as previously stated, the selection of this option is not considered likely, as local jurisdictions already strongly support a Watt Avenue interchange in the vicinity of a Blue Oaks extension to the north and the Option 1 interchange is likely to only be constructed as an additional interchange. Furthermore, the construction of two interchanges in this area is only possible with Alternative 1 due to engineering and safety constraints that would affect all other build alternatives, and when Curry Creek is considered as Potentially Developable (rather than Planned/Proposed Development), this option could induce the greatest amount of growth within the 1-mile radius. Similarly, under Variant B, the Alternative 1 corridor alignment has the most Potentially Developable Land within 1 mile, and the Alternative 5 corridor alignment has the least such land within 1 mile.

The growth inducement potential of Alternative 5 could be more limited than other corridor alignment alternatives because a substantial portion of the Alternative 5 corridor alignment lies immediately south of and parallel to the large planned Roseville Retention Basin, inhibiting the development of a new interchange. Similarly, a long portion of the Alternative 5 corridor alignment runs along the southern edge of several sizable areas designated as Reserve Acquisition Area on the Ad Hoc Committee Placer County Conservation Plan Alternative 4 map,⁶ which is included as Figure G-18. The presence of these relatively large features along the northernmost corridor alignment alternative would limit the potential for growth along the north side of the Placer Parkway corridor, while the more southerly corridor alignment alternatives have no similar features that would constrain or preclude growth from occurring both north and south of a roadway alignment in those locations (except for a block of Reserve Acquisition Area that stretches along the western edge of Placer County almost to the Sacramento County border, affecting all corridor alignment alternatives).

For all of these reasons, the least growth-inducing corridor alignment alternative would be Alternative 5.

3.0 ADDITIONAL TRANSPORTATION ANALYSIS OF ALTERNATIVES

This section focuses on potential traffic impacts that hypothetical additional future interchanges could have on the corridor alignment alternatives. It presents an evaluation of the potential effects of hypothetical additional interchanges on levels of service (LOS) on Placer Parkway, including identifying whether these effects would cause one or more of the Parkway alternatives to not meet the Project Purpose and Need.

The Project Purpose includes the following statement:

The proposed Placer Parkway would be designed to reduce pressure on the existing transportation network and to address anticipated future congestion on the local roadway system in southwestern Placer County and south Sutter County. The proposed project would be designed to reduce total vehicle hours traveled during the morning and evening peak commute periods (i.e., 6 to 9 a.m. and 3 to 6 p.m.), reduce the amount and duration of travel that is spent in congested conditions in Southwestern Placer County, and improve travel times between the SR 65 corridor and SR 70/99 by maintaining a travel speed at or near the free flow speed of the Parkway, which on a freeway reflects LOS C to D conditions.⁷

⁶Although not adopted, Placer County staff has indicated that the purple “Reserve Acquisition Areas” of this map represent a “consensus area” for future habitat conservation. Resource agency staff recommended consideration of the implications of this map for Placer Parkway alternatives, even though it has not yet been formally adopted.

⁷ Free flow speed and LOS C and D conditions on a freeway do not preclude an alternative based on: expanding existing roads, a non-freeway facility, a Transportation System Management alternative, a shorter Parkway Alternative, or a combination of the aforementioned.

The following discussion identifies the potential impacts of hypothetical additional interchanges on the LOS standard as defined in the Project Purpose and Need.

3.1 OVERVIEW OF ANALYSIS PROCESS

The analysis involved the following:

- Estimating traffic demands with the hypothetical additional interchanges under 2040 conditions with the same land use and transportation system assumptions that were used to evaluate each of the corridor alignment alternatives in the Draft Tier 1 EIS/EIR. The location of potential hypothetical interchanges is described above and illustrated on Figure G-4; and
- Evaluating the effects of hypothetical additional interchanges on 2040 LOS for segments of Placer Parkway as compared to the thresholds in the Project Purpose and Need.

The analysis also includes plots showing the change in daily traffic volumes due to the additional interchanges for each corridor alignment alternative.

3.2 RESULTS OF TRANSPORTATION ANALYSIS

Table G-5 shows the projected 2040 daily traffic volumes on segments of Placer Parkway assuming the construction of the hypothetical additional interchanges shown on Figure G-4. This table also presents a comparison of those volumes with (1) the volumes under the project alternatives as presented in the Draft Tier 1 EIS/EIR without a Watt Avenue connection; and (2) volumes under the project alternatives as presented in the Draft Tier 1 EIS/EIR, and assuming a potential Watt Avenue connection.

Table G-6 shows the projected 2040 LOS under each interchange scenario. This table indicates the following:

- The construction of hypothetical additional interchanges would result in higher traffic volumes on Placer Parkway than without those interchanges, especially in the Central Segment.
- All of the alternatives would operate at LOS D or better conditions on all segments of Placer Parkway with the construction of additional interchanges and would thus meet the intent of the Project Purpose and Need – to maintain a travel speed at or near the free flow speed of the Parkway, which on a freeway reflects LOS C to D conditions.
- Scenarios involving Alternative 1 with a Watt Avenue Option 1 (south) interchange would operate at LOS D conditions, thus marginally meeting the Project Purpose and Need. All other scenarios would operate at LOS C or better conditions on all segments of Placer Parkway.

To illustrate how potential hypothetical additional interchanges would affect traffic patterns and volumes, a set of “difference plots” were prepared that show which roadways would have increases and which would have decreases in volumes due to the additional interchanges, compared to the corresponding corridor alignment alternative without those interchanges. On Figures G-19 through G-24 these differences are shown for each alternative with red colors on roadways that would receive increases in volumes (with the additional interchanges) and green colors on roadways with decreases in volume. The width of the red or green bands on each roadway provides an indication of the magnitude of the change in traffic volumes with larger changes having the widest band widths.

These figures show that the additional interchanges would increase volumes on Placer Parkway and on the roadways where the hypothetical interchanges were assumed (such as Brewer Road), and decrease traffic on many other arterial/collector roadway segments in western Roseville and unincorporated portions of West Placer County.

3.3 CONCLUSIONS

The additional transportation analysis shows that the construction of potential hypothetical additional interchanges would result in higher traffic volumes on all Parkway alternatives as compared to volumes that would occur without those interchanges, especially in the Central Segment. However, all of the alternatives would still operate at LOS D or better conditions on all segments of the Parkway, which would thus meet the intent of the Project Purpose and Need – to maintain a travel speed at or near the free flow speed of the Parkway, which on a freeway reflects LOS C to D conditions. If the potential Watt Avenue interchange is considered, all Parkway alternatives would still operate at LOS C or better conditions, with the exception of Alternative 1, Watt Avenue interchange Option 1, which would operate at LOS D conditions, thus marginally meeting the Project Purpose and Need.

4.0 ADDITIONAL ANALYSIS OF SECONDARY AND INDIRECT IMPACTS ON BIOLOGICAL RESOURCES

U.S. EPA and USCOE staff recommended clarification of the relative differences among the proposed corridor alignment alternatives with regard to their potential to induce growth and cause secondary and indirect impacts on environmental resources; most notably biological resources, including vernal pools and wetlands.

This analysis of secondary and direct impacts on biological resources includes the following:

- a summary of the analysis of secondary and indirect impacts from the Draft Tier 1 EIS/EIR;
- additional quantitative analysis of potential impacts of each corridor alignment alternative on biological resources considering a landscape-based approach; and
- additional analysis of potential fragmentation of biological resources and reduced resource connectivity.

4.1 SUMMARY OF DRAFT TIER 1 EIS/EIR SECONDARY AND INDIRECT IMPACT ANALYSIS

Potential secondary and indirect impacts on specific environmental resources identified in the Draft Tier 1 EIS/EIR are summarized below.

Land Use: Anticipated growth could affect land use in the study area through the conversion of land from agricultural use to commercial, residential, and industrial uses. Such growth would also result in the conversion of existing undeveloped and vacant land to similar uses.

Farmland: Potential secondary and indirect impacts to farmland resources include the following:

- Fragmentation and parcel-size reduction could reduce the amount of land available for agricultural production and related effects on certain types of agricultural activities that require larger tracts of land to hold down per-unit production costs.

**Table G-5
Projected 2040 Daily Traffic Volumes on Placer Parkway Mainline with Proposed, Potential, and Hypothetical Interchanges**

No	Segment	Lanes	Average Daily Traffic Volume																					
			Alternative 1					Alternative 2			Alternative 3			Alternative 4			Alternative 5							
			Without Watt Avenue Interchange	With Watt South Interchange	With Watt North Interchange	With Brewer, Watt North and Hypothetical Eastern Segment Interchanges	With Brewer, Watt South, Watt North and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges					
1	East of SR 70/99	6	40,300	55,200	47,400	50,200	58,200	44,500	52,800	54,400	45,300	51,500	53,300	52,200	62,300	64,000	51,700	59,700	61,600					
2	East of Pacific St	6	42,800	71,000	54,600	60,300	75,900	49,200	63,300	66,100	50,600	61,300	63,700	57,600	73,100	75,800	56,300	68,700	71,600					
3a	East of So Sutter Rd.	6	45,100	82,800	59,300	65,800	89,100	55,800	75,400	74,600	57,800	72,100	74,800	57,600	73,100	75,800	56,300	68,700	71,600					
3b	East of Brewer Rd.	6				65,200	93,900			80,500			75,400							77,500	74,600			
4a	East of Watt Avenue (South)	6		62,300	57,800	74,600	83,300		63,400	79,900		63,200	77,000		62,400	76,300		71,300	59,300	67,800				
4b	East of Watt Avenue (North)	6				69,600	72,300														71,400	68,600	71,300	67,900
4c	East of Eastern Segment	6				70,100	71,000														64,200	66,700	71,100	65,200
5	East of Fiddymnt Rd.	6	60,200	66,000	64,600	70,100	71,000	64,200	66,700	71,100	65,200	67,400	70,800	65,200	67,000	71,600	64,600	66,700	71,000					
6	East of Foothills	6	68,500	70,800	70,400	72,800	73,200	71,000	71,700	73,700	71,700	72,500	74,000	71,500	72,300	74,200	71,200	71,800	73,800					

Source: DKS Associates, 2008

Notes:

All analyses assume construction of the conceptual (proposed) Parkway interchanges as shown on Figure G-4.

An interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.

Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.

**Table G-6
Projected 2040 Levels of Service on Placer Parkway Mainline with Proposed, Potential, and Hypothetical Interchanges**

No	Segment	Lanes	Level of Service																				
			Alternative 1					Alternative 2			Alternative 3			Alternative 4			Alternative 5						
			Without Watt Avenue Interchange	With Watt South Interchange	With Watt North Interchange	With Brewer, Watt North and Hypothetical Eastern Segment Interchanges	With Brewer, Watt South, Watt North and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges	Without Watt Avenue Interchange	With Watt Avenue Interchange	With Brewer, Watt and Hypothetical Eastern Segment Interchanges				
1	East of SR 70/99	6	B	B	B	B	B	B	B	B	B	B	B	B	B	C	B	B	B				
2	East of Pacific St	6	B	C	B	B	C	B	B	C	B	B	B	B	C	C	B	C	C				
3a	East of So Sutter Rd.	6	B	D	B	C	D	B	C	C	B	C	C	B	C	B	C	C	C				
3b	East of Brewer Rd.	6			B	C	D		B	C		C	C		B		C	C					
4a	East of Watt Avenue (South)	6		C	D	B	B		C	B		B	C		B		B	C	B	B	C	C	C
4b	East of Watt Avenue (North)	6		B	B		C		D			C	C				C	C		C	C		
4c	East of Eastern Segment	6		C	C		C		C			C	C				C	C		C	C		
5	East of Fiddymnt Rd.	6		B	C	C	C		C	C		C	C		C		C	C	C	C	C	C	C
6	East of Foothills	6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C				

Source: DKS Associates, 2008

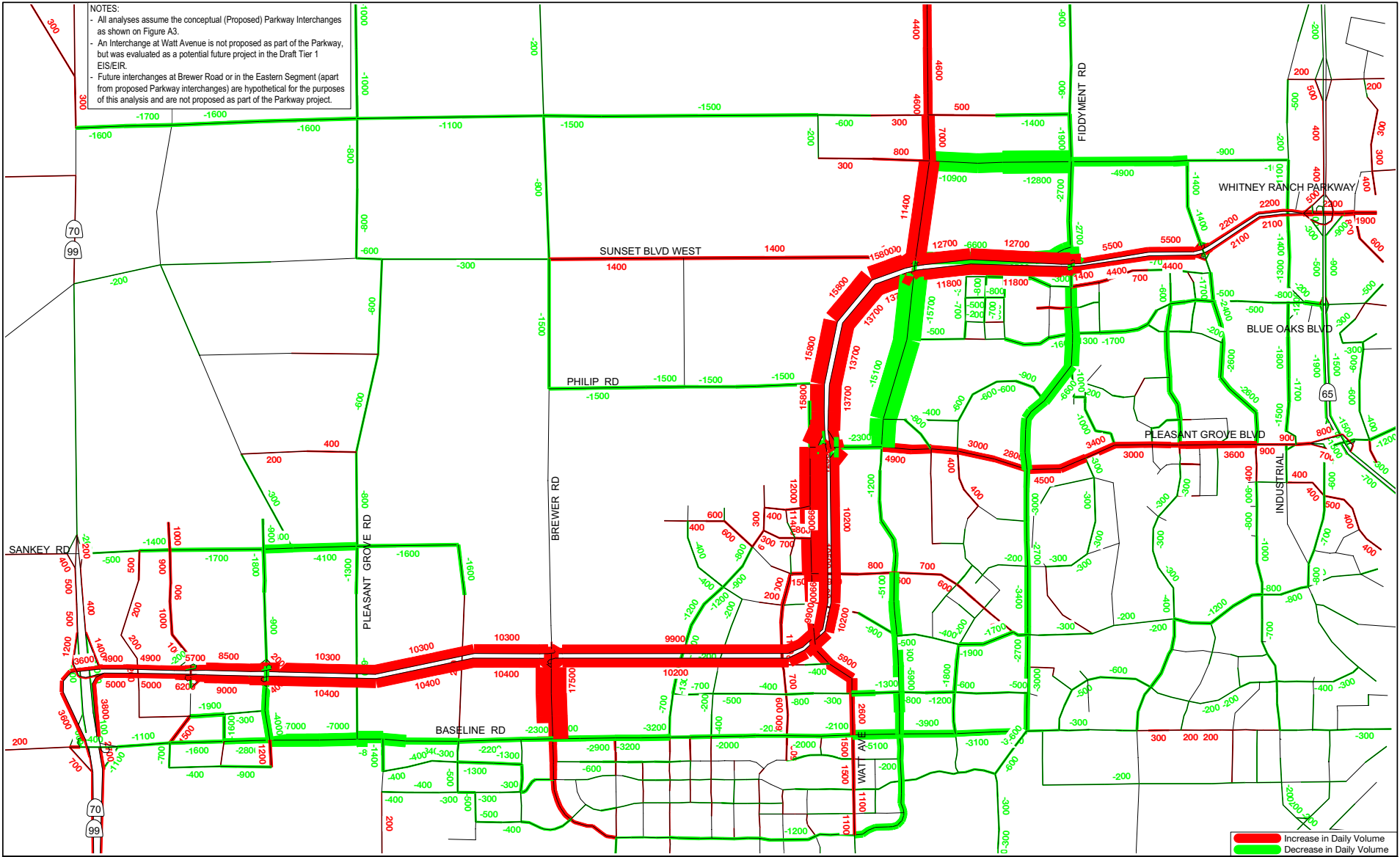
Notes:

All analyses assume construction of the conceptual (proposed) Parkway interchanges as shown on Figure G-4.

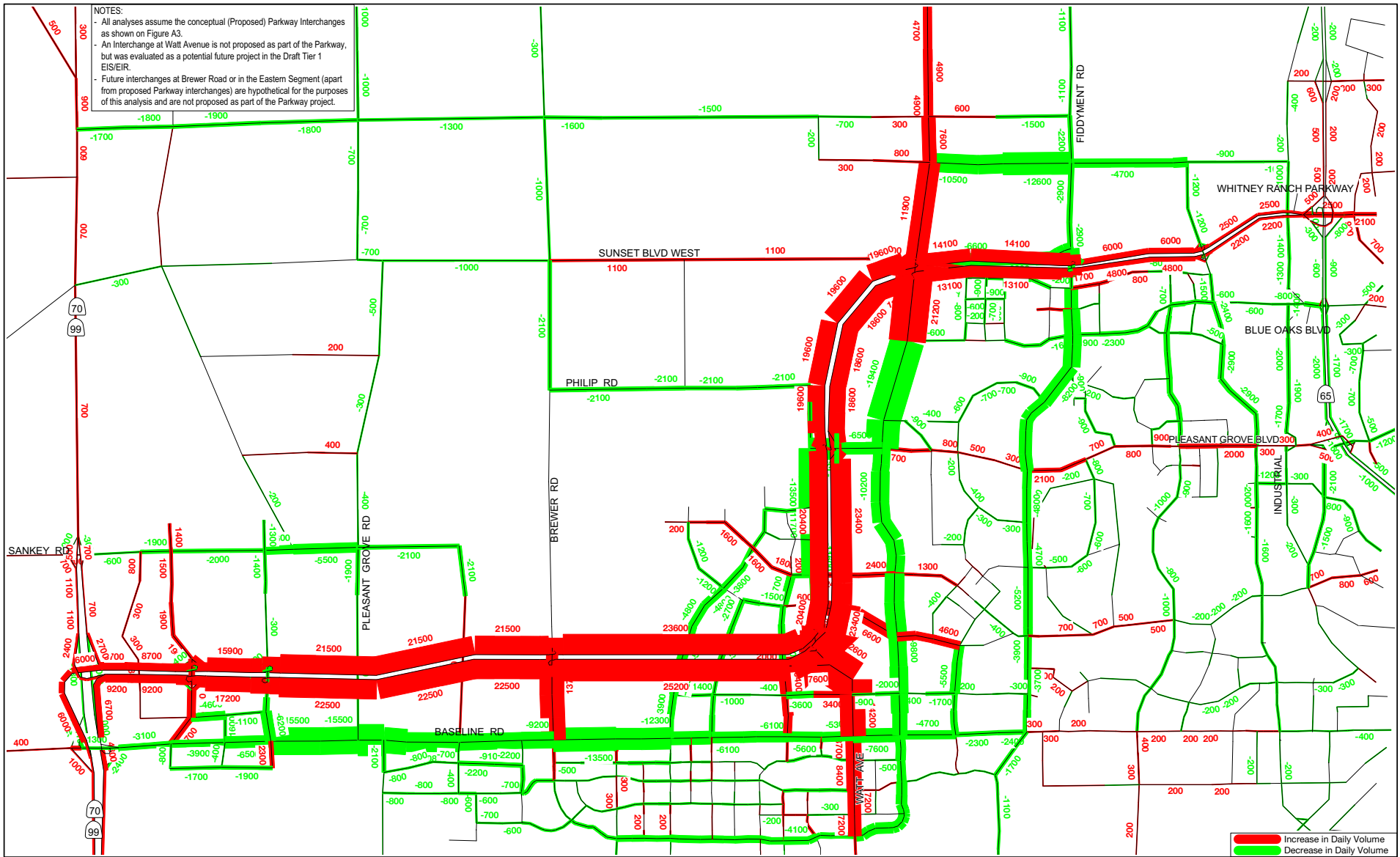
An interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.

Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.

NOTES:
 - All analyses assume the conceptual (Proposed) Parkway Interchanges as shown on Figure A3.
 - An Interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.
 - Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.

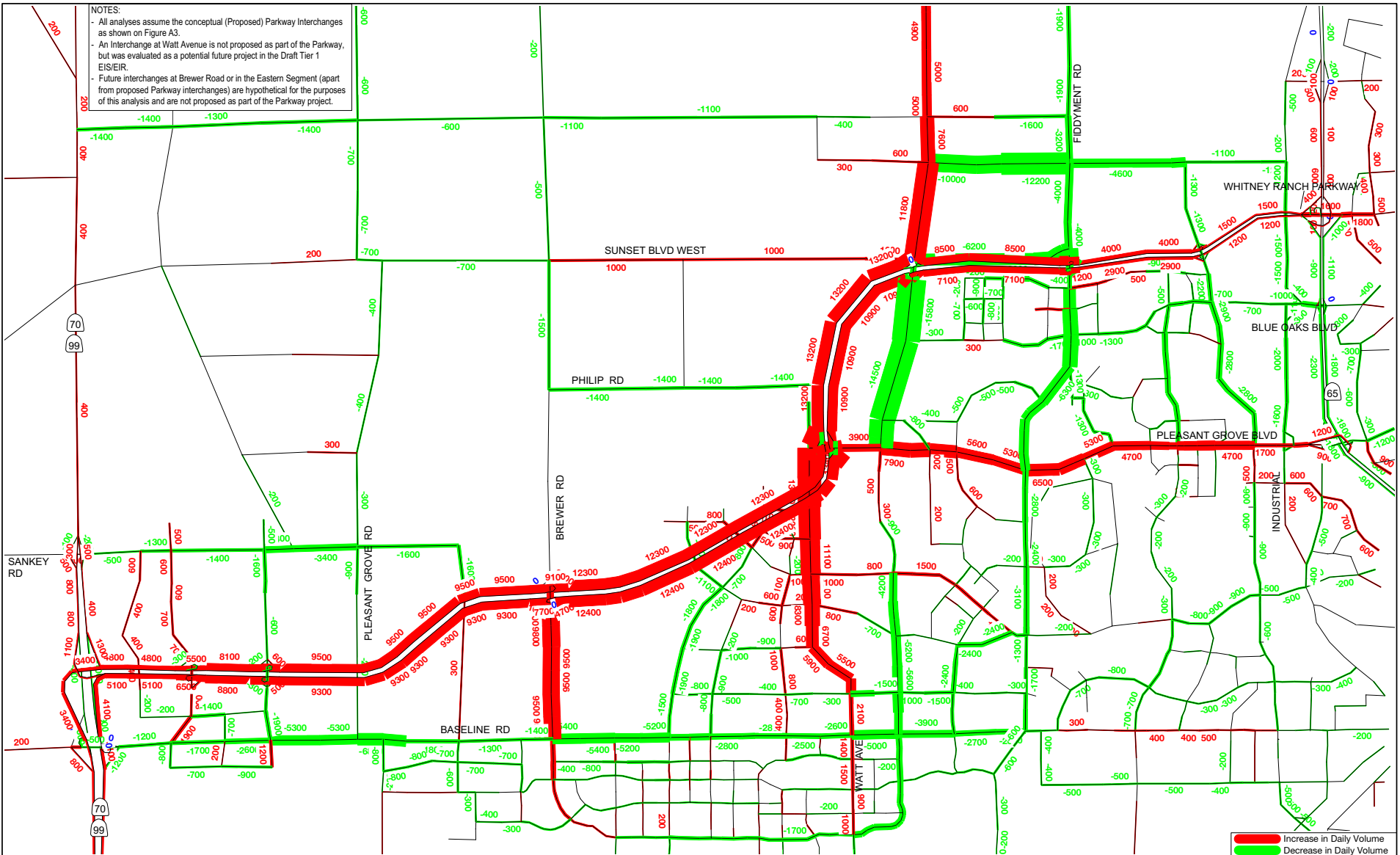


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NOTES:
 - All analyses assume the conceptual (Proposed) Parkway Interchanges as shown on Figure A3.
 - An Interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.
 - Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.



— Increase in Daily Volume
— Decrease in Daily Volume



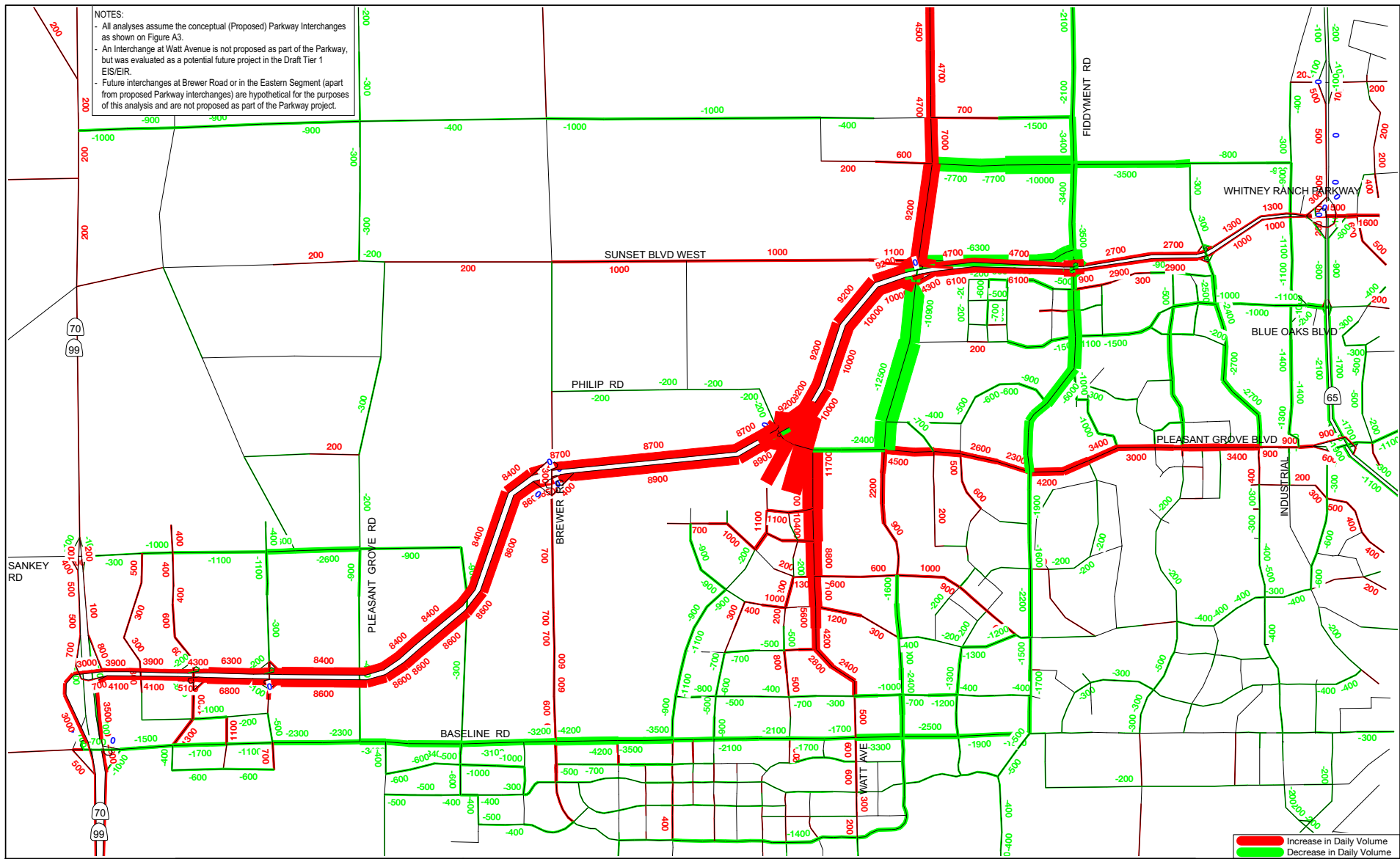
Tier 1 EIS/EIR

Change in 2040 Daily Volumes with Hypothetical Interchanges at Brewer Road and in the Eastern Segment, and a Potential Interchange with Watt Avenue Alternative 2

Figure G-21
 January 2009

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NOTES:
 - All analyses assume the conceptual (Proposed) Parkway Interchanges as shown on Figure A3.
 - An interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.
 - Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.



█ Increase in Daily Volume
█ Decrease in Daily Volume



Tier 1 EIS/EIR

Change in 2040 Daily Volumes with Hypothetical Interchanges at Brewer Road and in the Eastern Segment, and a Potential Interchange with Watt Avenue Alternative 3

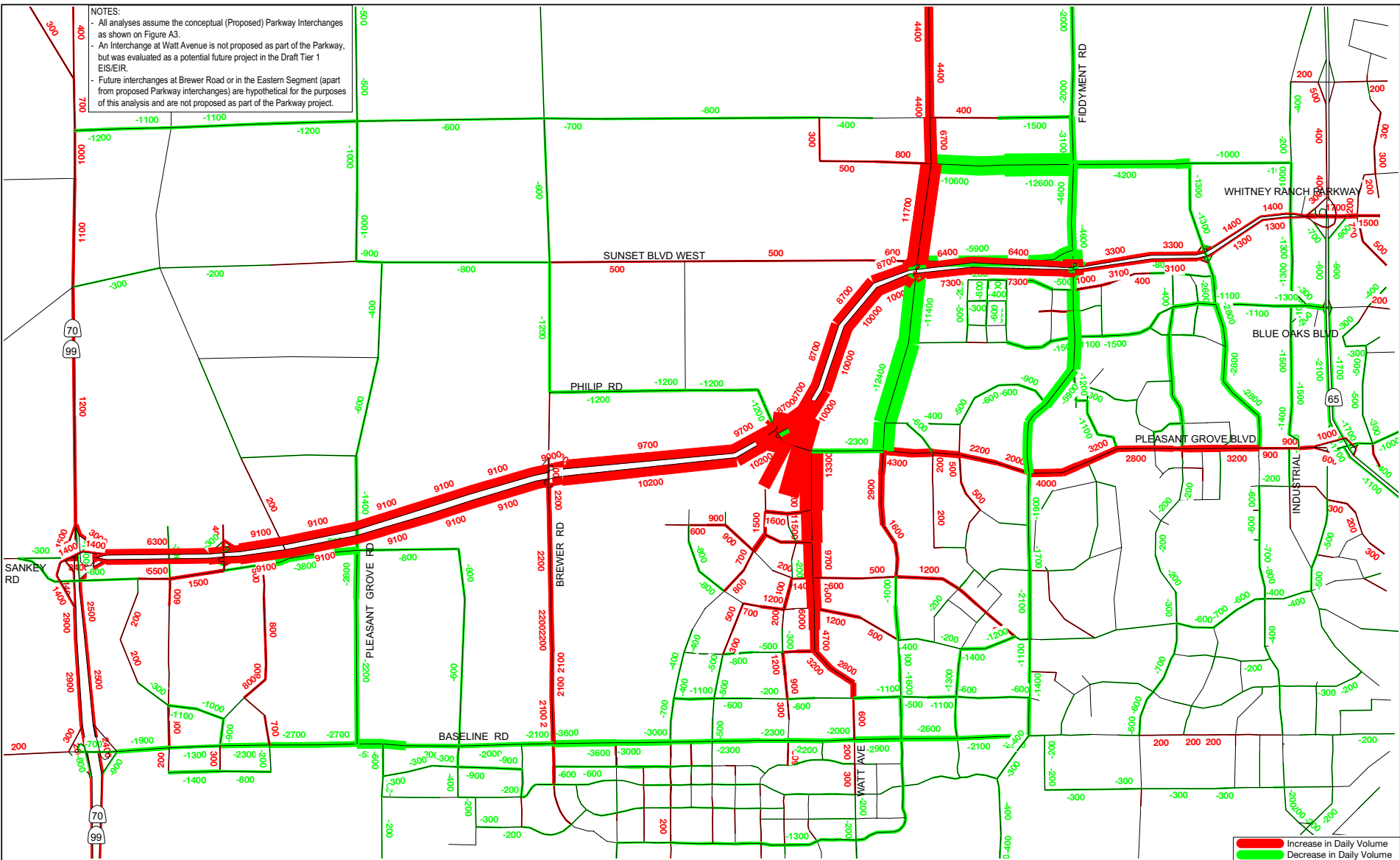
Figure G-22

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NOTES:

- All analyses assume the conceptual (Proposed) Parkway Interchanges as shown on Figure A3.
- An Interchange at Watt Avenue is not proposed as part of the Parkway, but was evaluated as a potential future project in the Draft Tier 1 EIS/EIR.
- Future interchanges at Brewer Road or in the Eastern Segment (apart from proposed Parkway interchanges) are hypothetical for the purposes of this analysis and are not proposed as part of the Parkway project.



— Increase in Daily Volume
— Decrease in Daily Volume



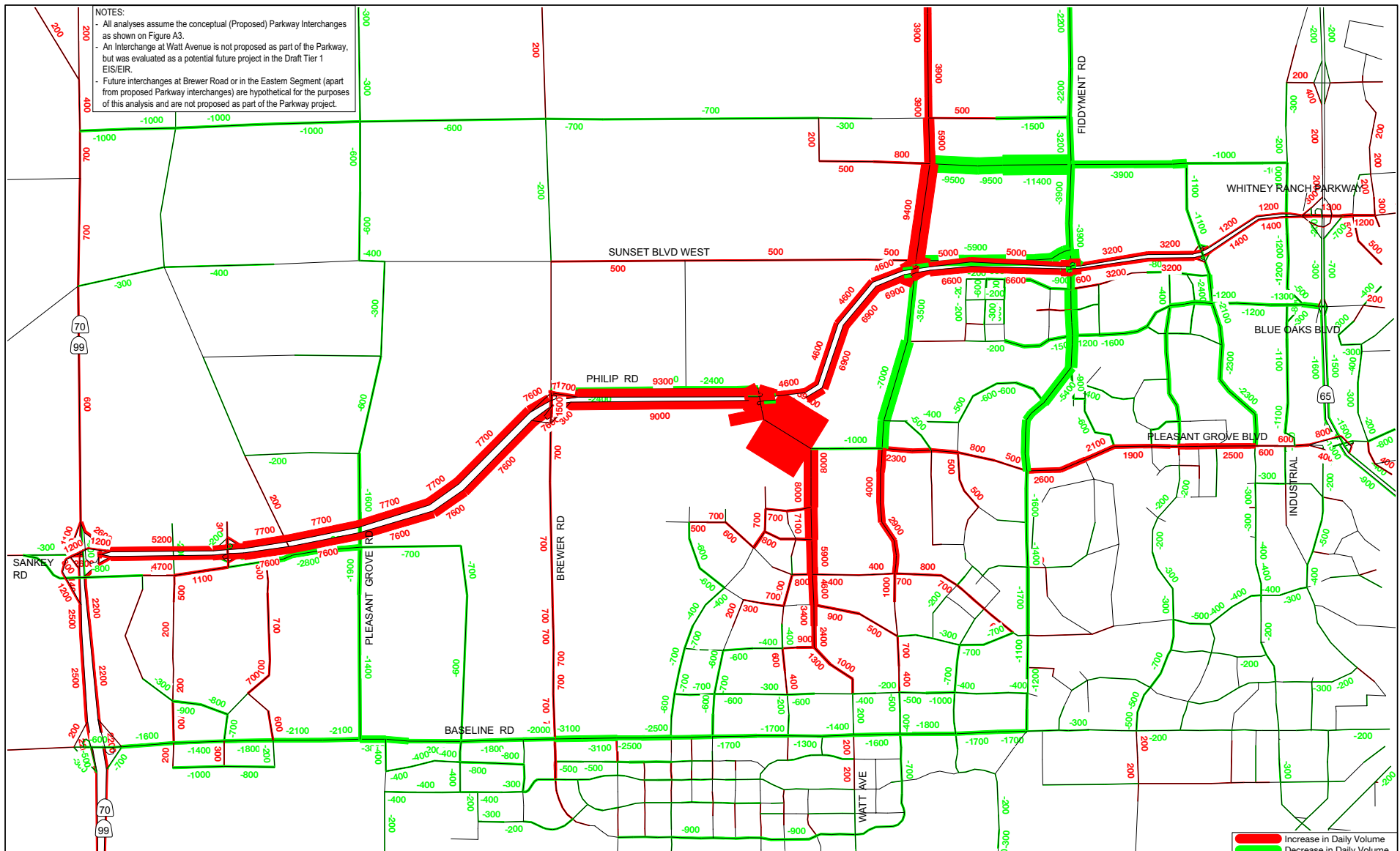
Tier 1 EIS/EIR

Change in 2040 Daily Volumes with Hypothetical Interchanges at Brewer Road and in the Eastern Segment, and a Potential Interchange with Watt Avenue Alternative 4

Figure G-23

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- The ability of a farm to compete in the local market against larger producers could be affected.
- An increase in impervious surfaces in the study area could increase surface water runoff and erosion, adversely affecting productivity of agricultural soils. These effects are expected to be offset by water quality requirements imposed on new development.
- The number of users of roadways will increase, and agricultural machinery and trucks would have to compete with residential traffic on local roadways. The differences in vehicle speeds and size can create potentially dangerous and frustrating situations for both suburban residents and for agricultural equipment operators.
- In remote areas within the study area, livestock can be driven from pasture to pasture using public and private roads. However, as traffic increases, livestock producers may need to use trucks and trailers to transport livestock as an added safety measure.
- Agricultural viability could be affected by reductions and changes in support services (in turn impacted by changes in customer base).

Socioeconomic and Community Resources: Potential secondary and indirect impacts to socioeconomic and community resources include the following:

- Increased population in the study area would result in increased demand for and use of community facilities such as schools, hospitals, places of worship, and emergency support services.
- Additional such facilities would be required, and would be expected to be planned for and provided by Sutter and Placer counties or provided by private sources as part of conditions incorporated into approval of new development proposals.
- A predominantly rural, agricultural area would be changed to an area comprising a greater density of mixed-use communities and associated infrastructure and facilities.
- Employment and fiscal benefits would be generated within the study area as a result of construction employment and income benefits, and also as a result of revenue and taxes generated and spent by new businesses, employees, and residents. These benefits could be applied to the greater Sacramento region, northern California, or beyond.

Visual Resources: Potential secondary and indirect impacts to visual resources include the following:

- Portions of a rural area would be converted into a more urban landscape, resulting in a perceived reduction in the visual quality of the existing natural environment.
- The type of viewer in the study area and the viewer exposure to the area (e.g., number, location, and duration of existing viewers) would be changed.
- Numerous commuters would be introduced to the area who would experience short-duration views of the surrounding landscape from the Parkway, and would also increase the number of residents and workers in the area who would have longer-duration views of the Parkway and the surrounding area.

- The urban influences in the study area would increase, consequently adding more “grey” than “green” with future growth (i.e., more pavement and structures than natural elements), a secondary impact of bringing in more urbanization to an area now dominated by rural influences.

Cultural Resources: Both known and as yet unidentified unknown historic properties, archaeological sites, and paleontological resources that may occur in and around the study area could potentially be disturbed. Such resources are generally protected via federal and state regulations, but development could result in adverse impacts to archaeological or historical resources.

Traffic and Transportation: Potential secondary and indirect impacts to traffic and transportation include the following:

- New roadways would be constructed as part of proposed future developments, which would also contribute to traffic pattern changes. Traffic pattern and volume changes can affect air quality and noise, which are discussed below.
- An increase in traffic would be generated. Traffic patterns would be changed, including congestion on some roadway segments (see below).
- Placer Parkway planning to date has been primarily a cooperative and collaborative process aimed at meeting projected travel demand associated with actual and anticipated population and employment growth in the region, rather than an effort aimed at stimulating or facilitating unplanned growth. Thus, traffic generation and traffic congestion relief will be occurring at the same time, as Placer Parkway is intended to alleviate congestion in the study area and would reduce commute times.

Air Quality: New traffic patterns and increased traffic volumes could adversely affect air quality, particularly if this results in additional congestion on roads in the study area. Although it is not possible to predict with any certainty where such growth-induced congestion might occur, it is reasonable to assume that pollutant emissions associated with such congestion could adversely affect air quality, although this could be wholly or partially offset by the improved level of service, decreased vehicle delay, and reduced congestion afforded by the Parkway.

Adverse impacts to air quality could occur in a number of ways:

- The risk of adverse health effects on humans residing in areas affected by poor air quality could increase.
- Pollution-sensitive wildlife species, such as lichens, could be affected.
- Higher levels of atmospheric carbon dioxide generated from vehicle emissions could contribute to climate change. This could be wholly or partially offset by cleaner future vehicle technology and using alternative fuels.

Noise: Modified traffic patterns could adversely affect noise, particularly if this results in traffic traveling at higher speeds within the study area. Although precise impacts on future receptors cannot be predicted, it is reasonable to assume that both new and existing developments that would be present in the study area in the future could be affected by noise.

Impacts could include the following:

- The overall ambient noise in the area could increase.
- There could be an increased risk of reduced quality of life, and associated adverse health effects on residences, business, and facilities located in areas affected by increased noise levels.
- Residences adversely affected by noise could experience adverse economic impacts.
- Noise-sensitive wildlife such as birds, mammals, and reptiles could be affected. Impacts are also possible on species that are sensitive to noise, and noise-related disturbance at particular stages of their life cycle, such as during nesting and other breeding activities.

Hydrology and Floodplains: Although it is not possible to predict with any certainty where new impervious surfaces may be created, it is reasonable to assume that impacts associated with reduction in pervious land cover and increased runoff, either directly associated with the construction of the Parkway or as a result of growth induced by the Parkway, could adversely affect floodplains and hydrology.

This could occur in a number of ways:

- Surface water and groundwater could be contaminated through increased erosion and runoff of pollutants.
- Increased peak flows and runoff volumes could cause flooding downstream.
- Declining levels of developable land could place additional pressure for continued floodplain encroachment, with its associated adverse effect on wildlife and increased risk of flooding.
- Aquatic wildlife could be affected as a result of increased sedimentation from erosion and runoff.
- Aquatic wildlife could be affected as a result of constriction or blockage of natural stream flow associated with stream crossings.

Water Quality: Although it is not possible to predict with any certainty where increased runoff will occur, it is reasonable to assume that secondary and indirect impacts associated with reduction in pervious land cover and increased runoff, either from the construction of the Parkway or as a result of anticipated growth, could adversely affect water quality.

This could occur in a number of ways:

- Nonpoint source water pollution of surface water bodies could increase through increased runoff from new developments.
- Aquatic flora and fauna could be affected as a result of degraded water quality and increased erosion and sedimentation.
- Surface water bodies could experience additional contamination associated with new stream crossings required by new developments.

Geology, Soils, Seismicity and Topography: Anticipated growth would not be expected to have any secondary or indirect impacts on geological, seismic, or topographical conditions in the study area.

However, new development could affect soils by increasing the amounts of impervious area in the study area, which would increase surface water runoff and could increase erosion. Increased erosion can impact agriculture by decreasing soil productivity, and can also impact biological resources. Potential impacts on water quality associated with erosion are discussed above.

Biological Resources: It is not possible to predict with any certainty where secondary or indirect impacts could occur. However, it is reasonable to assume that anticipated growth could adversely affect biological resources. Potential adverse effects to biological resources could include:

- Modification of land, including the fallowing of existing rice fields that are currently irrigated by flooding during the growing season or the discontinuation of grazing in vernal pool complexes.
- Loss or degradation of habitat for species that benefit from the current land management practices. Examples of affected habitats might include agricultural areas used by foraging Swainson's hawks, greater sandhill cranes, wintering waterfowl, giant garter snakes, and burrowing owls, as well as grazed vernal pool areas occupied by rare plants and listed branchiopods. A decrease in land management activities might also benefit nesting Swainson's hawks and white-tailed kites, the Valley elderberry longhorn beetle, and riparian habitats that are adversely affected by intensive land management activities.
- Adverse effects on the surrounding natural communities and special-status species. Increased noise and lights would likely decrease the value of such habitat for nesting and foraging, causing disturbance and potentially affecting natural breeding cycles and behavior. Increased impervious surfaces would increase stormwater runoff rates and could have adverse impacts on water quality and on water-dependent wildlife.
- Habitat fragmentation and division of larger tracts of habitat into smaller noncontiguous areas as a result of artificial structures such as roads, buildings, and other infrastructure. Fragmentation lowers habitat quality and can affect particular species that require large tracts of habitat or are vulnerable to disturbance from human activities.
- Where anticipated growth results in new crossings of water bodies and streams, secondary impacts on water quality and aquatic wildlife could occur. Riparian areas associated with creeks are particularly valuable in providing foraging, nesting, and migratory habitat for wildlife species, and could also be adversely impacted, either through direct loss from new development or from the effects of habitat fragmentation.
- Vernal pool complexes would also be susceptible to the effects of fragmentation caused by anticipated growth. Development can have effects on the hydrology of vernal pools that are not directly affected. Adding concrete or other impervious surfaces and/or deep ripping of the hardpan layer can affect the amount and quality of water available to the seasonally perched water tables characteristic of vernal pool areas. Changes to the perched water table can lead to alterations in the rate, extent, and duration of inundation (water regime) of remaining habitat (USFWS, 1996). Survival of vernal pool branchiopods is directly linked to the quality and quantity of water in the seasonally ponded depressions that they occupy. Roads in or near vernal pool habitat areas can lead to additional impacts through the introduction of chemically laden runoff (i.e., petroleum products).

- Anticipated growth may also produce conditions that are favorable for exotic predators such as bullfrogs and mosquito fish (USFWS, 1996). The U.S. Fish and Wildlife Service (USFWS) typically considers any ground-disturbing activities within 250 feet of a vernal pool to be an indirect impact.

Hazardous Materials: Anticipated growth could result in the potential disturbance of as yet unknown hazardous sites and potential recognized environmental concerns that may occur in and around the study area. Although it is not possible to predict with any certainty where such sites may be located, it is reasonable to assume that, if not properly investigated and remediated, such disturbance could result in accidental spillage or releases, which could adversely affect human health, soil, air quality, and groundwater or surface water. However, the development review process through state and federal law and regulation is expected to prevent such impacts.

Energy: Anticipated growth would use energy during construction and would consume energy in the form of heating and cooling, lighting, and business operations. Traffic trips associated with such development would also consume energy by increased Vehicle Miles Traveled (VMT) and trip generation, but such impacts could be wholly or partially offset by cleaner future vehicle technology and use of alternative fuels, and by the improved Levels of Service, decreased vehicle delay and reduced congestion afforded by the Parkway. Although overall VMT would increase, the Parkway would result in a reduction of VMT on congested arterials and local streets, which would reduce the extra energy used by vehicles in congested conditions.

4.2 ADDITIONAL GIS-BASED, LANDSCAPE-FOCUSED SECONDARY AND INDIRECT IMPACT ANALYSIS

The project's GIS database was used to generate additional information to facilitate analysis of the environmental effects resulting from the potential growth that could occur in the specific portions of the study area described in Section 2 of this appendix and illustrated on Figure G-1.

The analysis of potential secondary and indirect impacts focuses on biological resources, as these resources are of particular concern to the resource agencies for a number of reasons. Protection of biological resources is one of the fundamental roles of both USCOE and U.S. EPA, and potential impacts on vernal pools and wetlands are fundamental to the LEDPA selection under the Section 404 process. Furthermore, U.S. EPA and USCOE had raised a concern that potential growth associated with the project could have adverse fragmentation effects on biological resources.

The analysis used the results of the quantification of Potentially Developable Land (Section 2.3, Additional GIS-Based Alternatives Analysis) to evaluate the following effects:

- impacts on biological resources in Potentially Developable Land (Figure G-25), and
- fragmentation of biological resources, including contiguous blocks of habitat, resulting in reduced resource connectivity (Figure G-26).

This analysis focuses on the broadest of the *new analysis areas* — all land within 1 mile of the entire length of each corridor alignment alternative. The secondary and indirect effects of conceptual, potential, and hypothetical interchanges are not discussed separately in this document because the Potentially Developable Land within interchange locations is encompassed by the 1-mile radius boundary along all corridor alignment alternatives, and therefore secondary impacts on biological resources associated with interchanges are included in the overall alignment evaluation.

4.2.1 Potential Placer County Conservation Plan Implementation

The proposed Placer County Conservation Plan (PCCP) includes a program designed to ensure the continued conservation of threatened and endangered species in Placer County and to resolve potential conflicts between otherwise lawful urban development activities and the conservation of the species on non-federal land in Placer County. Conservation planning for all of Placer County is being undertaken in phases. The PCCP is currently being developed by the Placer County Planning Department in close coordination with the USFWS, California Department of Fish and Game, USCOE, U.S. EPA, and the City of Lincoln. The PCCP generally addresses approximately 269,800 acres of Placer County bordered on the west by Sutter County, on the north by Yuba and Nevada counties, on the east by El Dorado County, and on the south by Sacramento County (Figure G-18). The area contains 53,966 acres of incorporated land within the cities of Lincoln, Auburn, Rocklin, and Roseville, and the Town of Loomis. The entire area is variously referred to as “Western Placer” or the “Western Placer Area.”

The PCCP includes areas that are:

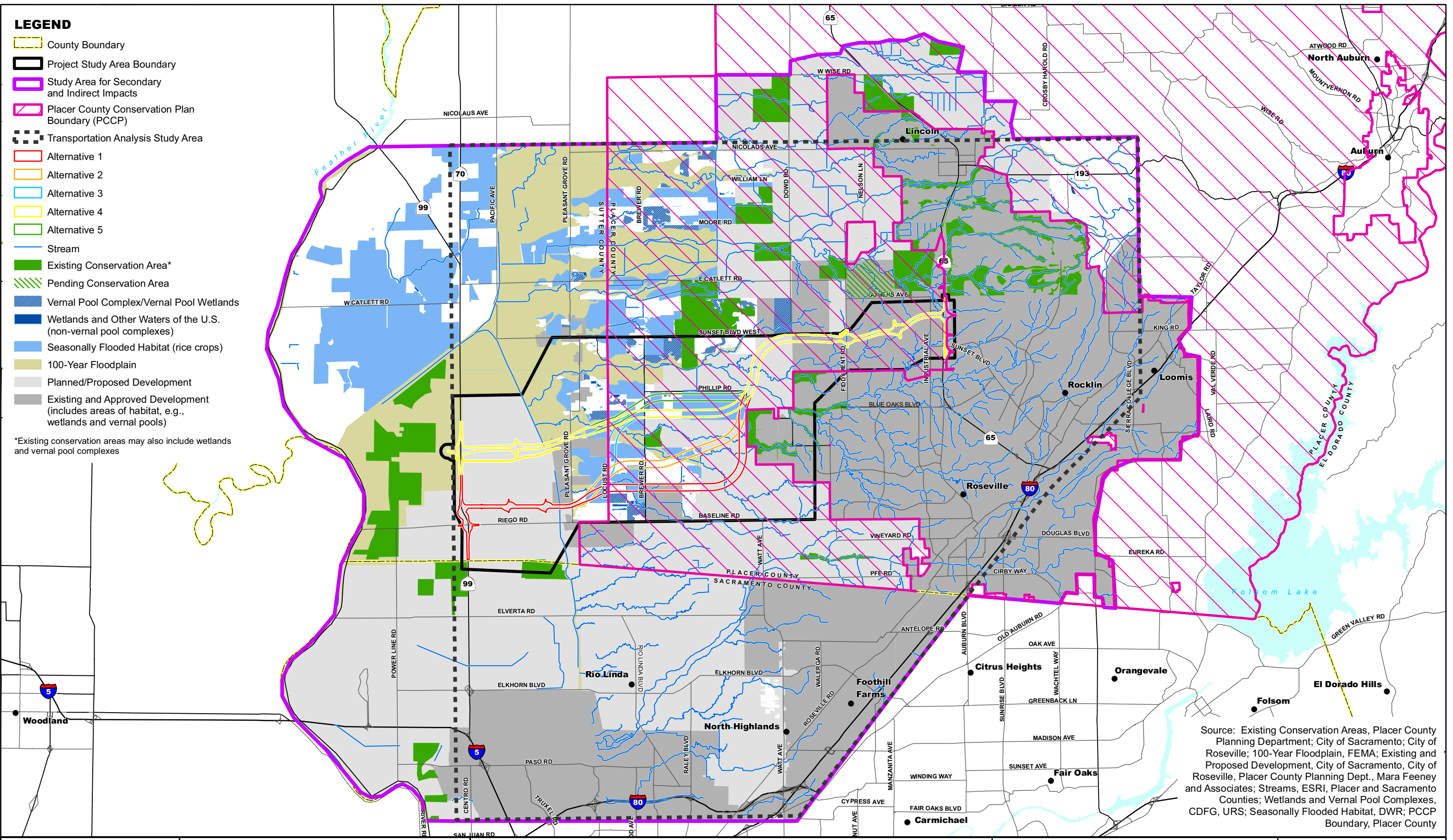
- already conserved (*Conservation Areas*);
- proposed for acquisition as conservation areas (*Reserve Acquisition Areas*); and
- proposed as partial conservation areas where some development would be permitted (*Development Transition Areas*).

In addition to evaluating secondary and indirect effects on biological resources in Potentially Developable Land, this analysis also considered the potential effect of the PCCP (Figure G-25), which if implemented, would reduce the amount of Potentially Developable Land in the study area. In order to ensure the analysis reflected the most conservative conditions, impacts were evaluated both with and without the PCCP assumptions. The potential implementation of the PCCP was included in the analysis because one of its specific objectives is the conservation of biological resources, including minimization of habitat fragmentation. Some of the Potentially Developable Land identified in this analysis lies within the proposed PCCP’s Reserve Acquisition Areas. Although the PCCP has not been finalized, private land owners, County and City land use planners, and federal and state resource agencies are working toward a tentative agreement on proposed Reserve Acquisition Areas for the protection of key special-status species. If agreed to, the Reserve Acquisition Areas are not likely to be available for substantial development. The current proposal assumes that approximately 40 percent of land within Development Transition Areas could be developed, although this is not yet finalized. This represents the most current proposal for the PCCP. Because agreement has not yet been reached, and because the USCOE and U.S. EPA have asked that the current PCCP map be considered in the analysis of secondary and indirect biological impacts, two scenarios have been evaluated, for conservatism:

- Scenario 1 – includes development within the Reserve Acquisition Areas, assuming the PCCP is not approved, and
- Scenario 2 – excludes the potential for development within the Reserve Acquisition Areas currently proposed for the PCCP, assuming the PCCP is approved.

Under both scenarios it is assumed that lands in the Development Transition Areas are not precluded from development and all land in this area is classified as Potentially Developable Land, unless otherwise constrained by one of the factors described earlier.

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*Existing conservation areas may also include wetlands and vernal pool complexes

Source: Existing Conservation Areas, Placer County Planning Department; City of Sacramento; City of Roseville; 100-Year Floodplain, FEMA; Existing and Proposed Development, City of Sacramento, City of Roseville, Placer County Planning Dept., Mara Feeny and Associates; Streams, ESRI, Placer and Sacramento Counties; Wetlands and Vernal Pool Complexes, CDFG, URS; Seasonally Flooded Habitat, DWR; PCCP Boundary, Placer County



TIER 1 EIS/EIR

Secondary and Indirect Impact Analysis Study Area/ PCCP Conservation Area

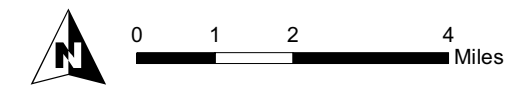
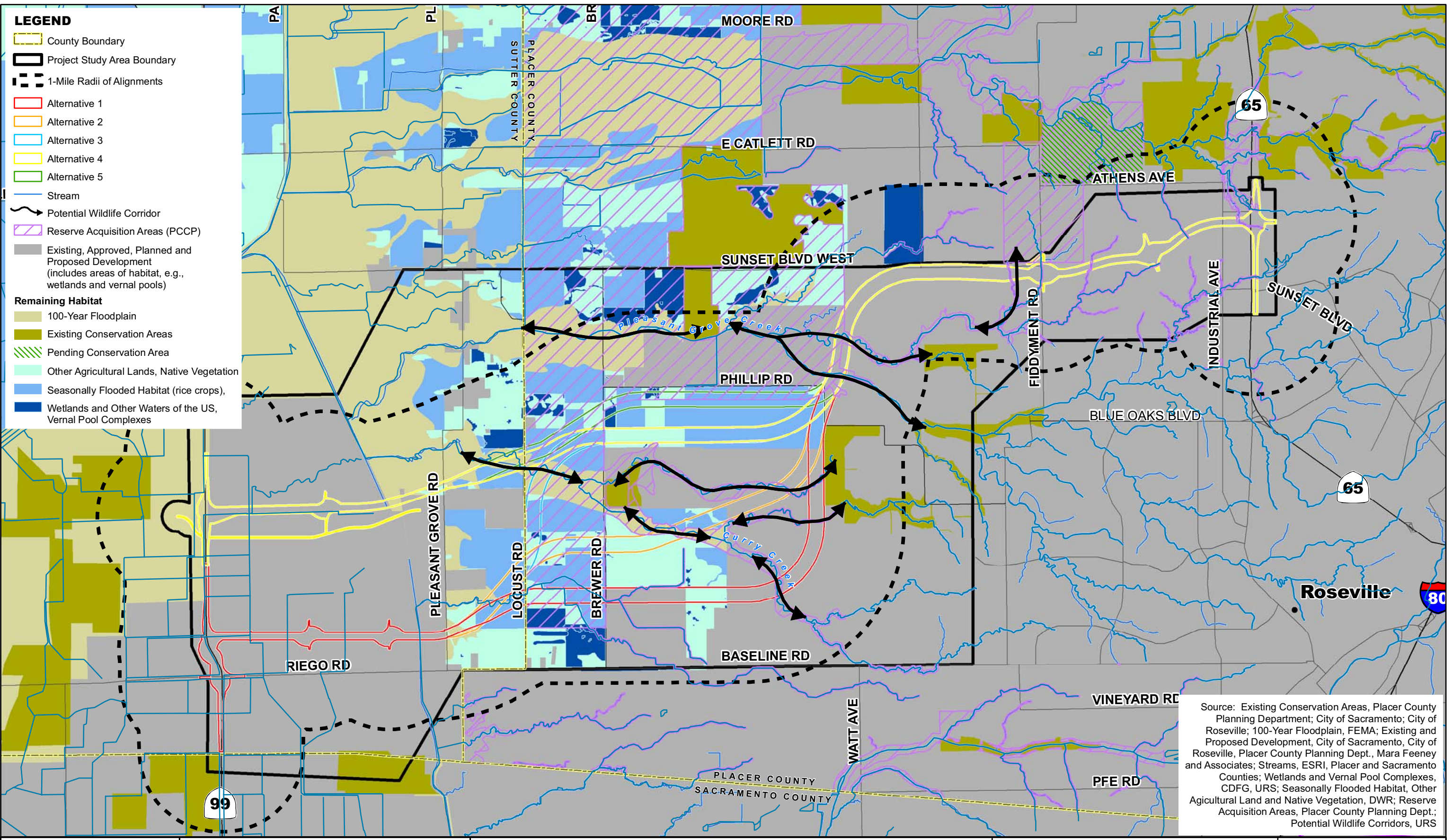


Figure G-25

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LEGEND

- County Boundary
- Project Study Area Boundary
- 1-Mile Radii of Alignments
- Alternative 1
- Alternative 2
- Alternative 3
- Alternative 4
- Alternative 5
- Stream
- Potential Wildlife Corridor
- Reserve Acquisition Areas (PCCP)
- Existing, Approved, Planned and Proposed Development (includes areas of habitat, e.g., wetlands and vernal pools)

Remaining Habitat

- 100-Year Floodplain
- Existing Conservation Areas
- Pending Conservation Area
- Other Agricultural Lands, Native Vegetation
- Seasonally Flooded Habitat (rice crops),
- Wetlands and Other Waters of the US, Vernal Pool Complexes

Source: Existing Conservation Areas, Placer County Planning Department; City of Sacramento; City of Roseville; 100-Year Floodplain, FEMA; Existing and Proposed Development, City of Sacramento, City of Roseville, Placer County Planning Dept., Mara Feeny and Associates; Streams, ESRI, Placer and Sacramento Counties; Wetlands and Vernal Pool Complexes, CDFG, URS; Seasonally Flooded Habitat, Other Agricultural Land and Native Vegetation, DWR; Reserve Acquisition Areas, Placer County Planning Dept.; Potential Wildlife Corridors, URS



TIER 1 EIS/EIR

Habitat Connectivity



Figure G-26

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4.2.2 Future Development Potential

Scenario 1 – Potentially Developable Land within 1 Mile of Project Alternatives, Including Development in PCCP Future Reserve Acquisition Areas

Table G-7 takes the amount of Potentially Developable Land for each alternative, as described in Section 2.0, and breaks it out by habitat type. Potentially Developable Land within 1 mile of the project alternatives includes three habitat types: (1) wetlands/Waters of the United States, (2) vernal pool complexes (vernal pool complexes include wetland habitats and associated uplands), and (3) land that is seasonally flooded for rice cultivation. Potentially Developable Land that lacks any habitat classification/designation is included in Table G-7 as “Other Developable Land.” The majority of such land is farmland (primarily within the Unique Farmland and Farmland of Local Importance classifications within Placer County, and within the Unique Farmland, Farmland of Statewide Importance and Grazing Land classifications within Sutter County).

Table G-7 indicates that, under Variant A, Alternatives 1, 2, and 3 would have a high potential to influence development in wetlands and other Waters of the United States, ranging from 73.1 acres under Alternative 3 to 64.7 acres under Alternative 1 and 62.1 acres under Alternative 2. These resources would have the least potential to be influenced by development under Alternatives 4 and 5, at 32.9 and 37.9 acres, respectively. Under Variant B, impacts are similar, with Alternative 1 having the highest impacts at 81.1 acres and Alternatives 4 and 5 the lowest, at 32.9 and 37.9 acres, respectively.

Table G-7
Acres of Potentially Developable Land
within 1 Mile of the Project Alternatives by Selected Habitat Type –
Including Development in PCCP’s Future Reserve Acquisitions Area (Scenario 1)
(acres)

Alternative/ Variant	Wetlands/ Waters of the United States		Vernal Pool Complexes		Seasonally Flooded Rice		Other Developable Land		Total Potentially Developable Land ¹	
	Variant A ²	Variant B ³	Variant A	Variant B	Variant A	Variant B	Variant A	Variant B	Variant A	Variant B
Alternative 1	64.7	79.4	565.3	1,242.4	<i>1,801.5</i>	<i>2,548.4</i>	2,071.5	2,806.5	4,492.1	6,664.7
Alternative 2	62.1	<i>72.9</i>	<i>449.0</i>	<i>1,079.1</i>	2,092.1	2,841.0	1,951.0	2,041.2	4,544.7	6,024.7
Alternative 3	73.1	73.1	588.9	1,219.0	2,936.0	3,283.9	1,996.4	2,019.3	5,584.4	6,585.2
Alternative 4	32.9	32.9	479.6	1,109.8	2,364.8	2,711.8	1,347.2	1,370.1	4,218.5	5,218.4
Alternative 5	37.9	37.9	533.8	1,164.0	2,252.4	2,544.8	1,337.4	1,360.3	4,154.3	5,099.7

Notes: Habitat area estimates are based on available habitat characterization of the developable lands within 1 mile of the proposed alternatives. The total area of developable land may include additional habitat types that are not mapped, such as uplands, farmland and woodland areas.

Bold numbers are greatest impact.

Italic numbers are least impact.

¹ Total developable land is the sum of all four previous column categories. The sum of individual habitat categories do not precisely agree with total developable lands due to some overlap in GIS data between vernal pool complexes and wetland acreages.

² Variant A comprises the land use information assumed in the Draft Tier 1 EIS/EIR; that the Curry Creek Community Plan area and Sunset Industrial Area Plan are developed.

³ Variant B assumes the Curry Creek Community Plan area and a portion of Sunset Industrial Area Plan are Potentially Developable Land.

Under Variant A, potential effects on vernal pool complexes would vary more across alternatives, ranging from 449 acres under Alternative 2 to 588.9 acres under Alternative 3. Alternatives 2 and 4 would generally have the least potential to influence development in vernal pool complexes, with Alternatives 1 and 3 having

the most potential. Impacts would be higher across all alternatives under Variant B, with Alternative 2 having the lowest impacts (1,079.1 acres) and Alternative 1 having the highest (1,242.4 acres).

Under Variant A, Alternative 1 would have the lowest potential to influence development in seasonally flooded rice habitat (approximately 1,801.5 acres), followed by Alternative 2 (2,092.1 acres). Alternative 3 would have the highest potential to influence development in seasonally flooded rice habitat (approximately 2,936 acres). Impacts would be higher across all alternatives under Variant B, with Alternative 5 having the lowest impacts (2,544.8 acres) and Alternative 3 having the highest (3,283.9 acres).

Under Variant A, if development in the PCCP Reserve Acquisition Areas were unconstrained, the *total* Potentially Developable Land (which includes wetlands, vernal pool complexes, seasonally flooded rice, and other developable land) within 1 mile of the project alternatives would be lowest for Alternative 5 (4,154.3 acres), and therefore Alternative 5 would have the lowest potential to influence development in the resource areas analyzed. Alternative 5 has 64 acres of Potentially Developable Land fewer than Alternative 4, 390 acres fewer than Alternative 2, 1,430 acres fewer than Alternative 3, and 338 acres fewer than Alternative 1. Alternative 3 has the largest area of Potentially Developable Land (5,584.4 acres), and thus would have the highest potential to influence development in the resource areas analyzed. Under Variant B, impacts would be higher for all alternatives, with Alternative 5 having the lowest (5,099.7 acres) and Alternative 1 having the highest (6,664.7 acres).

Scenario 2 – Potentially Developable Land within 1 Mile of Project Alternatives, Excluding Development in PCCP Future Reserve Acquisition Areas

Table G-8 compares the same habitats but excludes from Potentially Developable Land areas that are within the “Reserve Acquisition Areas” identified in the draft PCCP (Figure G-18). As stated above, these areas have been identified by a consensus of private and public reviewers (PCCP Working Group) to be the likely areas for future conservation and are not likely to be available for substantial development if the PCCP is approved.

**Table G-8
Total Area of Potentially Developable Land
within 1 Mile of the Project Alternatives by Habitat Type –
Excluding Development in PCCP Future Reserve Acquisition Areas (Scenario 2)
(acres)**

Alternative/ Variant	Wetlands/ Waters of the United States		Vernal Pool Complexes		Seasonally Flooded Rice		Other Developable Land		Total Potentially Developable Land ¹	
	Variant A ²	Variant B ³	Variant A	Variant B	Variant A	Variant B	Variant A	Variant B	Variant A	Variant B
Alternative 1	49.8	64.5	449.3	1,101.4	1,162.5	1,906.0	1,341.3	2,075.4	2,993.5	5,172.3
Alternative 2	47.2	58.0	335.8	941.0	1,352.4	2,097.9	1,210.4	1,300.2	2,937.7	4,416.4
Alternative 3	46.1	46.1	424.0	1,029.3	1,601.7	1,946.8	1,013.1	1,035.6	3,078.0	4,067.7
Alternative 4	15.8	15.8	395.6	1,000.9	1,367.2	1,711.3	617.4	639.9	2,392.6	3,381.4
Alternative 5	19.6	19.6	395.6	1,000.9	1,270.6	1,562.1	609.0	631.5	2,291.4	3,225.0

Notes: Habitat area estimates are based on available habitat characterization of the developable lands within 1 mile of the proposed alternatives. The total area of developable land may include additional habitat types that are not mapped.

Bold numbers are greatest impact.

Italic numbers are least impact.

¹ Total developable land is the sum of all four previous column categories.

² Variant A comprises the land use information assumed in the Draft Tier 1 EIS/EIR; that the Curry Creek Community Plan area and Sunset Industrial Area Plan are developed.

³ Variant B assumes the Curry Creek Community Plan area and a portion of Sunset Industrial Area Plan are Potentially Developable Land.

Under Variant A (Table G-8), Alternatives 4 and 5 would have the lowest potential to influence development in wetlands and Waters of the United States (15.8 and 19.6 acres, respectively). The potential for future development in wetlands would more than double under Alternatives 1, 2, and 3, at 49.8, 47.2, and 46.1 acres, respectively. Alternative 1 would have the highest potential to influence development in wetlands and Waters of the United States under this scenario. Under Variant B, impacts would be similar, with Alternative 1 being highest with 64.5 acres and Alternative 4 being the lowest with 15.8 acres.

Under Variant A, the potential to influence development in vernal pool complexes would be lowest for Alternative 2 (335.8 acres), and highest for Alternative 1 (449.3 acres). Impacts would be higher across all alternatives under Variant B, with Alternative 2 having the lowest impacts (941 acres) and Alternative 1 having the highest (1,101.4 acres). The potential to influence development in seasonally flooded rice would vary from a low of 1,162.5 acres under Alternative 1 to a high of 1,601.7 acres under Alternative 3. Impacts on this resource would be higher across all alternatives under Variant B, with Alternative 5 having the lowest impacts (1,562.1 acres) and Alternative 2 having the highest (2,097.9 acres).

Under Variant A, if no development were to occur in the PCCP Reserve Acquisition Areas, the *total* Potentially Developable Land within 1 mile of the project alternatives would be lowest for Alternative 5 (2,291.4 acres), and therefore Alternative 5 would have the lowest potential to influence development in the resource areas analyzed, similar to Scenario 1. Alternative 5 has approximately 101 acres of Potentially Developable Land fewer than Alternative 4, 786 acres fewer than Alternative 3, 646 acres fewer than Alternative 2, and 702 acres fewer than Alternative 1. Alternative 3 has the largest number of acres of Potentially Developable Land (3,078 acres), and thus would have the highest potential to influence development in the resource areas analyzed.

Under Variant B, results would be similar and higher, with Alternative 5 having the lowest potential to influence development (3,225 acres), and Alternative 1 the highest (5,172.3 acres).

Under both scenarios, Alternative 5, followed closely by Alternative 4, would have the least potential to influence development in Potentially Developable Lands, and Alternative 1 would have the most potential, regardless of whether or not development occurs in the PCCP Reserve Acquisition Areas.

4.3 FRAGMENTATION OF BIOLOGICAL RESOURCES AND REDUCED RESOURCE CONNECTIVITY

4.3.1 Fragmentation Effects of the Parkway Build Alternatives

The potential fragmentation impacts resulting from growth adjacent to the Parkway corridor alignment alternatives are discussed in this section. The focus of the analysis is on the secondary and indirect effects of growth, and this section also discusses the indirect fragmentation impacts of the Parkway on biological resources.⁸ Each alternative would occupy a linear, east-west corridor that is approximately parallel to the most likely corridors for the movement of terrestrial and aquatic species (Figure G-26). The build alternatives traverse similar habitat types with no marked difference between the proposed corridor alignments in terms of location within existing developed and undeveloped land. All alternatives are identical in this aspect in the Eastern and Western segments and very similar in the Central Segment.

Potential indirect fragmentation impacts from the Parkway build alternatives on habitat connectivity are evaluated in this document based on the minimum area of habitat recommended for conservation of

⁸ NCHRP Guidance 466 – Figure 1-3 defines fragmentation as an indirect effect (National Cooperative Highway Research Program, 2002).

sensitive species that occur in the vicinity of the Parkway corridor and the number of stream crossings required for each of the project alternatives. This approach is based on the following assumptions:

- **Minimum habitat reserve area** – At a landscape level, the potential effects of habitat fragmentation can be approximated using the minimum habitat area required to support the target species (minimum habitat reserve area). Target species in western Placer County include small invertebrates such as the vernal pool fairy shrimp, vernal pool tadpole shrimp, and the Valley elderberry longhorn beetle.
- **Stream corridors** – Stream corridors in the project vicinity would be the primary linkages between smaller reserve areas under the proposed PCCP. These corridors are important for wildlife movement and provide benefits for water quality, hydrology, and the preservation of important breeding and foraging habitats for wildlife.

Potential fragmentation effects of the proposed project based on the minimum habitat reserve area and stream corridor crossings are discussed below.

The proposed Placer Parkway build alternatives would not substantially reduce the potential viability of the remaining habitat units available for key sensitive species in western Placer County. Target species in western Placer County include small invertebrates such as the vernal pool branchiopods (e.g., vernal pool fairy shrimp and vernal pool tadpole shrimp) and the Valley elderberry longhorn beetle. Vernal pool branchiopods occupy small patches of habitat in western Placer County that are often confined by existing agricultural and urban development. Branchiopod species have low potential for dispersal due to their body size and the relatively small size of the aquatic habitat that they occupy. Therefore, conservation of these species is less dependent on maintaining larger blocks of contiguous habitat (Brussard et al., 2004). The minimum reserve size recommended for vernal pool complexes is 200 acres (Brussard et al., 2004). The proposed Parkway corridors are not likely to affect the viability of the remaining habitat areas that are potentially occupied by vernal pool branchiopods. Other special-status species such as Swainson's hawks forage over large areas and their movement is not likely to be adversely affected by roads. Roads are more likely to affect wildlife species such as amphibians, mammals and reptiles that depend on riparian corridors, streams, canals, or other corridors for overland migration, dispersal, or foraging.

Preservation of stream corridors is integral to the regional LEDPA approach being developed for the PCCP, which emphasizes the preservation of streams and adjacent 100-year floodplains in western Placer County as part of the PCCP (U.S. EPA, 2006). The draft PCCP considers most stream corridors and the adjacent 100-year floodplain areas to be part of future Reserve Acquisition Areas (Figure G-18). In western Placer County, the stream corridors drain from east to west, roughly parallel to the proposed project corridor alignment alternatives, and provide connections between lower floodplain areas near the Sacramento River and the higher foothill areas east of the project study area.

Three streams would be crossed by the proposed build alternatives: Natomas East Main Drainage Canal (Steelhead Creek), Pleasant Grove Creek, and Curry Creek. All or portions of these three streams would be located within the future Reserve Acquisition Areas under the proposed PCCP (Figure G-18).

Table G-9 summarizes the total number of stream crossings for each of the alternatives.

The southern alternatives (Alternatives 1 and 2) would include crossings of Curry Creek and its tributaries that would potentially fragment stream corridors designated in the PCCP to support the regional LEDPA approach. Alternative 1 would have 15 stream crossings. Alternatives 4 and 5 would have the fewest stream crossings (nine for each alternative), which are the primary linkages between habitat areas under the approach being developed for the PCCP. Alternatives 1, 2, and 3 would have a greater potential to fragment habitat along the Curry Creek stream corridor because of the additional stream crossings that would be required for these alternatives.

Table G-9
Number of Stream Crossings Required for Each Corridor
Alignment Alternative

Alternative	Number of Stream Crossings
Alternative 1	15
Alternative 2	11
Alternative 3	10
Alternative 4	9
Alternative 5	9

Source: URS, 2007

Alternative 1 would have additional habitat fragmentation impacts along a tributary of the Natomas East Main Drainage Canal known as Steelhead Creek. As proposed, Alternative 1 would require a longitudinal crossing (as opposed to a shorter perpendicular crossing) that would affect approximately 7,000 linear feet of Steelhead Creek. At the request of U.S. EPA, adjustments in this alignment to eliminate or reduce this impact were explored. Since the creek lies both along the top and the bottom of the corridor alignment, it would be difficult for minor realignments to eliminate this impact entirely without substantive relocation. Realignment of this corridor alignment alternative to the north would not substantively reduce the length of longitudinal crossing (it would pick up an additional length of stream to replace the length avoided, unless it were to lie immediately adjacent to Alternative 2). Reduction in the length of longitudinal crossing could occur if the roadway were realigned to the south. This would involve bisecting the Country Acres community to the south and impacting Curry Creek at its widest point as the road curves north, or providing unacceptable roadway curvature. In addition, direction from the project's Advisory Committees was to locate this alternative approximately 1 mile north of Baseline Road to allow for potential development between Placer Parkway and Baseline Road. For these reasons, realignment is not proposed.

4.3.2 Fragmentation Effects of Growth

Potential impacts to contiguous blocks of habitats are evaluated based on the assumption discussed in the previous section—that the proposed project is most likely to influence development of land within 1 mile of the future road alignment. Future development in the vicinity of the Parkway could result in secondary and indirect impacts associated with growth that could adversely affect the viability of contiguous blocks of habitat in the study area. Figure G-26 illustrates existing habitat, including wetlands, vernal pools, seasonally flooded habitat, and all other Potentially Developable Land areas that could be fragmented by development that might occur in the vicinity of the Parkway, including habitats that are currently preserved or identified for future preservation under the PCCP.

Western Segment: In the Western Segment, most of the study area (west of Locust Road) is in Sutter County. The majority of land in this segment west of the Natomas East Main Drainage Canal is covered by the Natomas Basin Habitat Conservation Plan (NBHCP), which is intended to preserve, restore, and enhance habitat values found in the Natomas Basin while allowing urban development to proceed according to local land use plans. This would limit adverse effects from habitat fragmentation associated with potential growth in the area, although there is an area in Sutter County between the eastern boundary of the NBHCP and the western boundary of the PCCP that is outside of the areas of both conservation plans, and which could be vulnerable to habitat fragmentation effects from future development (see Figure G-26).

Central Segment: The map of the draft PCCP conservation areas (Figure G-18) indicates that the majority of the area in the Central Segment is within the Development Transition Area, as designated under the PCCP, with some areas such as stream corridors included in the Reserve Acquisition Areas. Future development in the vicinity of the northern alternatives (Alternatives 4 and 5) would be constrained by existing conservation lands and the 100-year floodplain of Pleasant Grove Creek (Figure G-26). Extensive floodplain areas adjacent to Pleasant Grove Creek are recognized in the proposed PCCP land use plans as the southern boundary of future Reserve Acquisition Areas. Potential development north of Phillip Road adjacent to Alternative 5 would be constrained by the proposed PCCP designation of future Reserve Acquisition Areas as shown on Figure G-26 or low-intensity development (City of Roseville Retention Basin).

If the PCCP is approved as currently proposed (Scenario 1), potential fragmentation effects would be substantially different among alternatives. These differences would be primarily in the Central Segment. In the Central Segment east of Brewer Road, Alternative 5 would be located along the southern boundary of an area designated for Reserve Acquisition (Figure G-26), which would substantially reduce the potential for growth and fragmentation effects to the north, and would avoid impacts on the Pleasant Grove Creek stream corridor and retention basin conservation areas.

The area south of Alternative 5 would be located within a proposed Development Transition Area. All of the other project alternatives in the Central Segment would be entirely in this area. Portions of the Development Transition Area are proposed for conservation; either as part of the PCCP target conservation goal of 60 percent of the Development Transition Area or as designated Reserve Acquisition Areas (e.g., stream corridors).

However, it is possible that growth in the vicinity of these alternatives would potentially fragment smaller corridors associated with Curry Creek and its tributaries that are considered priorities for future conservation. Figure G-26 shows that the majority of the area between Alternatives 1 and 5 is either existing or planned development or currently undeveloped habitat that which is outside of the Reserve Acquisition Areas of the PCCP, and that would be vulnerable to potential fragmentation effects.

Eastern Segment: Impacts from all build alternatives are identical in the Eastern Segment.

With or without the PCCP (Scenario 1 or Scenario 2), the extent of Potentially Developable Land would be substantially different among the alternatives (see Tables G-7 and G-8). An increased potential for development could lead to increased fragmentation of biological resources and reduced resource connectivity. As described above, the potential for the various alternatives to influence development in Potentially Developable Lands would be least under Alternatives 4 and 5, and greatest under Alternative 1. Therefore, based on this parameter, fragmentation effects would be least under Alternatives 4 and 5 and greatest under Alternative 1.

This analysis provides an assessment of fragmentation of biological resources in the context of the Draft Tier 1 EIS/EIR, plus additional analysis to include potential effects associated with hypothetical additional interchanges, and buffer reduction or even elimination, all of which is captured within the 1-mile additional analysis area. The assessment of fragmentation due to future development at the Tier 1 level is based on current information. The extent and location of future development cannot be fully determined, and comprehensive field-verified data for resources that could be affected would only be developed at the Tier 2 stage of environmental review, or would be analyzed by such future development at the time of their respective environmental reviews. For this effort, good data collection has been associated with development of the PCCP, and this information has been used in this analysis. It is clear that, even without the Parkway, future urban development and associated infrastructure would likely have fragmentation effects on existing contiguous blocks of habitat in the study area.

4.4 CONCLUSIONS

As Tables G-7 and G-8 show, the area of Potential Developable Land within 1 mile of the proposed alternatives substantially differs between alternatives. Although these differences would vary somewhat depending on the land use variants (Variant A versus Variant B) and PCCP scenarios (Scenario 1 versus Scenario 2) that were considered, the relative rankings of the alternatives are similar irrespective of which combination of scenario and variant is considered. By inference, an increased potential for development could lead to increased fragmentation of biological resources and reduced resource connectivity. As described above, the potential for the various alternatives to influence development in Potentially Developable Lands would be least under Alternatives 4 and 5, and greatest under Alternative 1. Therefore, based on this parameter, the potential for fragmentation effects would be least under Alternatives 4 and 5 and greatest under Alternative 1. This ranking is the same for Scenario 1 versus Scenario 2 and Variant A versus Variant B.

None of the Placer Parkway corridor alignment alternatives would substantially affect the viability of the remaining habitat areas available for conservation. This conclusion is based on the minimum recommended reserve size for vernal pool branchiopods recommended by the PCCP Science Advisors Report (Brussard et al., 2004). The analysis of stream crossings suggests that Alternatives 4 and 5 would likely have less potential to fragment stream corridors and existing habitat linkages. Minimizing stream crossings and barriers to wildlife movement would support the objectives of maintaining future reserve linkages highlighted in the regional LEDPA approach for the proposed PCCP and is consistent with the PCCP Science Advisors Report (Brussard et al., 2004). The analysis also identifies that Alternative 1 would have the highest potential for fragmentation effects associated with stream crossings.

Under the PCCP (Scenario 1), most of the land north of Phillip Road would be designated for future reserve acquisition, while allowing some development in the Development Transition Area south of Phillip Road. This proposed PCCP plan feature would decrease the potential for the northern alternatives to draw development farther north. However, potential development would also be less for Alternatives 4 and 5 without the PCCP (Scenario 2). This is due, in part to the existing public ownership and conservation of lands immediately north of these alternatives along Pleasant Grove Creek.

For all of these reasons, indirect effects of fragmentation of biological resources associated with growth would be least under Alternative 5, similar but slightly greater under Alternative 4, and greatest under Alternative 1. As previously stated, potential fragmentation associated with the Parkway build alternatives would be greatest under Alternative 1, as a result of the highest number of stream crossings and a longitudinal crossing of Steelhead Creek. Alternatives 4 and 5 would have the fewest stream crossings.

5.0 ADDITIONAL CUMULATIVE IMPACT ANALYSES FOR BIOLOGICAL RESOURCES

U.S. EPA and USCOE staff recommended providing more detail regarding the relative differences among the proposed corridor alignment alternatives with regard to their potential to cause cumulative impacts on environmental resources, to assist in the determination of the corridor most likely to contain the LEDPA.

This section provides more detailed information regarding cumulative impacts to wetland habitats than was provided in the Draft Tier 1 EIS/EIR. This additional analysis compares cumulative impacts at a greater level of detail than required for a Tier 1 analysis. It is appropriate here in the context of development of information to assist the U.S. EPA and the USCOE to identify the corridor most likely to contain the LEDPA, in accordance with Concurrence Point 4 in the modified National Environmental Policy Act/404 process created for the Placer Parkway project. Quantitative estimates of potential

cumulative impacts of the proposed corridor alignment alternatives are compared and discussed in the context of historic changes and resource agency goals. The cumulative impacts discussion below is divided into two parts:

- A summary of cumulative impact findings from the Draft Tier 1 EIS/EIR background; and
- A quantitative assessment of potential cumulative effects of the Placer Parkway project on wetland habitats. This assessment is based on U.S. EPA-recommended guidance prepared jointly by the FHWA and Caltrans (FHWA/Caltrans, 2005).

5.1 SUMMARY OF DRAFT TIER 1 EIS/EIR CUMULATIVE IMPACT CONCLUSIONS

The environmental analyses prepared for the Draft Tier 1 EIS/EIR found that the Parkway build alternatives could result in potential cumulative impacts on specific environmental resources, as follows:

- Land use, through potential growth inducement;
- Farmlands, through farmland conversion to transportation and other urban uses, and effects from fragmentation and reduced economic viability;
- Visual resources, through contribution to a changed visual regional character, as the landscape is transformed from rural to urban/suburban;
- Cultural resources, through potential cumulative impacts on unknown archaeological and paleontological resources, and impacts on the Reclamation District No. 1000 historic district;
- Traffic and transportation, through a contribution to Vehicle Miles Traveled (VMT) (although overall the project would have beneficial cumulative impacts through a decrease in Vehicle Hours of Delay and improvements in level of service on the majority of roadways in the study);
- Air quality, through a contribution to VMT and a resultant exceedance of certain pollutant thresholds (although the project would have beneficial cumulative impacts through a decrease in Vehicle Hours of Delay and improvements in level of service on the majority of roadways in the study);
- Noise, through increased noise levels on certain roadways;
- Hydrology, floodplains, and water quality, through floodplain encroachment, increases in impervious areas and stormwater runoff, and impacts from construction in and near waterbodies; and
- Biological resources, as a result of loss of natural vegetation and habitat, habitat fragmentation, and increase in urban uses.

5.2 QUANTITATIVE ASSESSMENT OF POTENTIAL CUMULATIVE EFFECTS ON WETLAND HABITATS

As summarized above, the Draft Tier 1 EIS/EIR cumulative impact assessment concluded that the proposed project could have a cumulative impact on biological resources. Potential cumulative impacts

to biological resources would include the loss of natural vegetation and habitats used by wildlife species, habitat fragmentation, and increased disturbance from urban activities. This section provides additional, more detailed analysis focused on the potential cumulative impacts on vernal pool complexes, vernal pool wetlands, and other wetlands.

Cumulative impacts on vernal pool complexes, vernal pool wetlands, and other wetlands are evaluated in this section using the following steps (as described in the 2005 FHWA/Caltrans guidelines):

1. Define the cumulative impact study area;
2. Identify other reasonably foreseeable actions that affect each resource (the cumulative development scenario);
3. Describe the current health and historical context for each resource;
4. Identify direct and indirect impacts of the proposed project that might contribute to a cumulative impact; and
5. Assess potential cumulative impacts.

Each of these steps is described in more detail below.

5.2.1 Cumulative Impact Study Area

For the purposes of evaluating the corridor most likely to contain the LEDPA, this evaluation uses an expanded version of the cumulative impact study area defined in the Draft Tier 1 EIS/EIR. The Draft Tier 1 EIS/EIR cumulative impact study area was determined to be the area where the travel demand model shows “significant” changes in traffic volumes, although the percentage of roadways that would be affected by Placer Parkway decreases on the fringes of that area. The study area used in this section includes additional areas and contemplates the potential implementation of the proposed Placer County Conservation (PCCP). This study area is appropriate for this evaluation of cumulative effects to wetlands and other aquatic habitats because it encompasses two regional habitat conservation plan areas, it is consistent with the general regional distribution of sensitive aquatic resources, and it includes most of the reasonably foreseeable regional development (Figure G-27).

This area covers portions of eight jurisdictions: Placer County, Sutter County, Sacramento County; the cities of Roseville, Rocklin, Lincoln, and Sacramento; and the Town of Loomis. Its boundaries are shown on Figure G-27. This study area is consistent with the geographic study area criteria that are defined in the 2005 FHWA/Caltrans guidelines:

1. A reasonable geographic area for which potential impacts of other reasonably foreseeable projects have been identified and for which historical resource data are available.
2. A geographic area appropriate for the evaluation of the resource categories of concern.

5.2.2 Cumulative Development Scenario

The FHWA guidelines recommend that the evaluation of a project’s potential impacts should include a period of 20 years after opening. This is to ensure that the project is evaluated in the context of reasonably foreseeable future development, when anticipated future development in the study area would have occurred, and when any potential direct, indirect, and/or cumulative impacts associated with the project would be evident. The temporal study limit for the cumulative impacts analysis as defined in the Placer Parkway Draft Tier 1 EIS/EIR is the 2040 Cumulative Development Scenario.

The 2040 Cumulative Development Scenario was based on the “Super-Cumulative” development scenario that was developed for the evaluation of traffic impacts in several pending EIRs for major

developments in Placer County. It was prepared through discussions with the staffs of Placer County and the cities of Roseville, Rocklin, and Lincoln, and confirmed by the project’s Advisory Committees. The Cumulative (2040) Development Scenario reflected the following assumptions about development:

- Full buildout of all residential land in Placer County west of Sierra College Boulevard, including current general plan areas and the following major development proposals in West Placer County (see Figure G-27):
 - The Placer Vineyards Specific Plan area;
 - The Riolo Vineyards Specific Plan area;
 - The Sierra Vista Specific Plan area;
 - The Curry Creek Community Plan area;
 - The Regional University Specific Plan area;
 - The Creekview Specific Plan area;
 - The PRSP area; and
 - The City of Lincoln Sphere of Influence expansion area.
- Growth in retail employment in Placer County that “balances” the growth in residential development by matching the Sacramento Area Council of Governments (SACOG) countywide estimate of about 0.32 employee per dwelling unit from their 2025 forecasts.
- Growth in total employment levels in Placer County that balances the growth in residential development by matching SACOG’s projected 1.3 employees per dwelling unit from their 2025 forecasts.
- Full buildout of the residential development in the proposed SPSP area, along with a nonresidential development level that balances the residential development in that area.
- Estimated 2040 development in all other portions of SACOG’s six-county region based on a straight-line ratio for the development growth between 2005 levels and the 2050 Preferred Blueprint scenario for each of SACOG’s Traffic Analysis Zones.

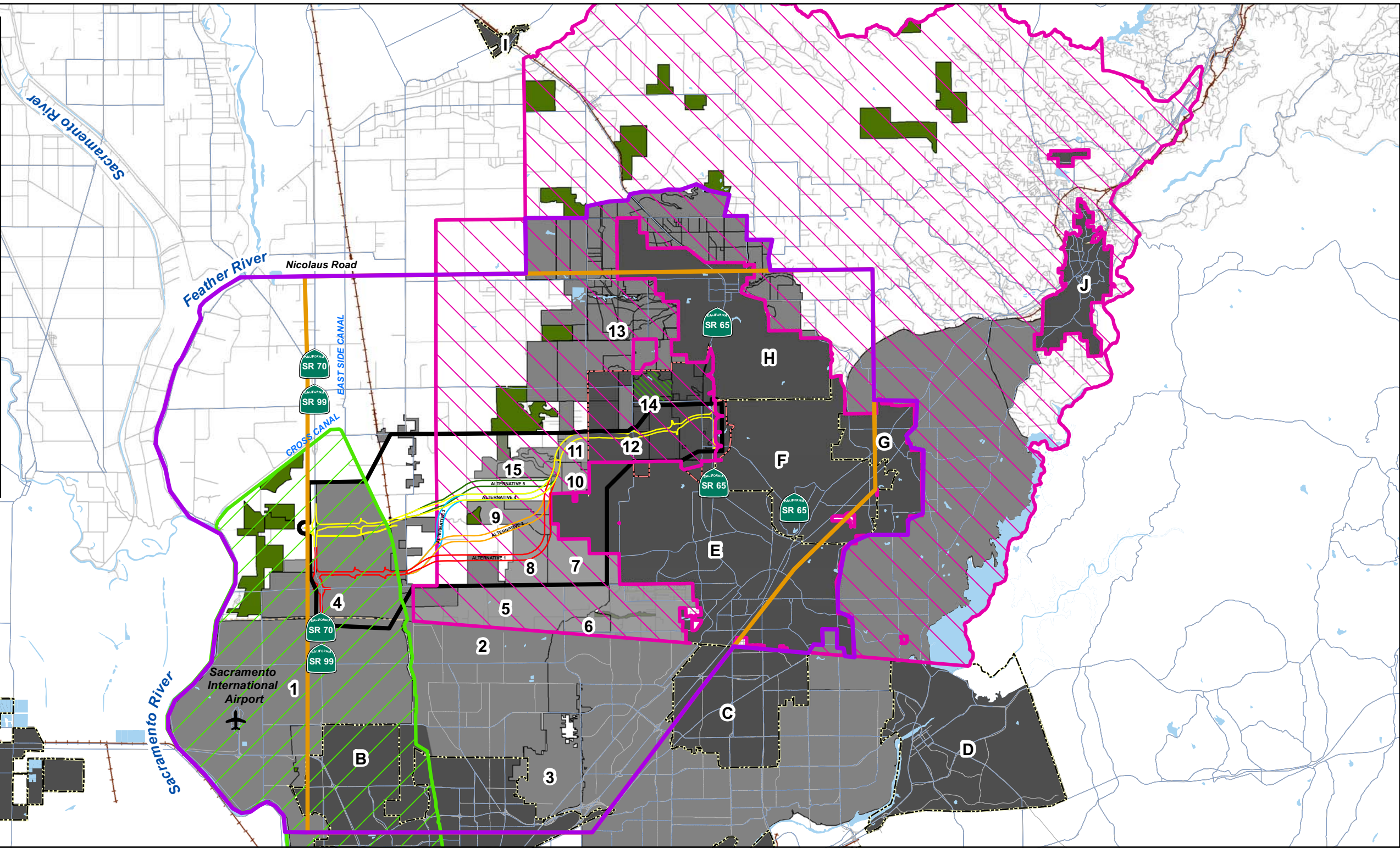
Additional details of these assumptions are provided in Table G-10. For purposes of assisting in the determination of the corridor most likely to contain the LEDPA, more detail was provided for the following additional nearby areas in Placer and Sacramento counties, rather than using a straight-line analysis for all 2040 development (see Figure G-27):

- Brookfield Area in Placer County, development assumed but not quantified;
- The area covered by the proposed PCCP; and
- Full residential buildout in the following major development proposals in northern Sacramento County:
 - Natomas Joint Vision area;
 - Rio Linda and Elverta Community Plan area; and
 - McClellan Redevelopment Project area.

Figure G-27 shows the locations of potential projects and other future development. These projects are not proposed as part of the Parkway and are not secondary or indirect impacts of the Parkway.

Map Document: (U:\GIS\Placer_Parkway\PlacerParkway2007_28066595MXD\Current Working Documents\FigG1_cumulativeimpacts.mxd) 5/1/2009 -- 12:24:35 PM K.Lawrence

- Cities/Towns:**
- A - Woodland
 - B - Sacramento
 - C - Citrus Heights
 - D - Folsom
 - E - Roseville
 - F - Rocklin
 - G - Loomis
 - H - Lincoln
 - I - Wheatland
 - J - Auburn
- Planned/Proposed Development Areas:**
- 1 - Natomas Joint Vision Area
 - 2 - Rio Linda and Elverta Community Plan Area
 - 3 - McClellan Redevelopment Project Area
 - 4 - Measure M / Sutter Pointe
 - 5 - Placer Vineyards Specific Plan Area
 - 6 - Riolo Vineyards Specific Plan Area
 - 7 - Sierra Vista Specific Plan Area
 - 8 - Curry Creek Community Plan Area
 - 9 - Regional University Specific Plan Area
 - 10 - Creekview Specific Plan Area
 - 11 - Brookfield Property
 - 12 - Placer Ranch Specific Plan Area¹
 - 13 - City of Lincoln SOI Expansion Area
 - 14 - Sunset Industrial Area Plan (SIAP)²
 - 15 - Reason Farms
- ¹ Includes Placer Ranch Specific Plan area (#12); entire SIAP is shown as approved for development
- ² Placer Ranch Specific Plan is in SIAP and is therefore shown as approved for development, specific development proposal pending



City Boundary	Alternative 1	Alternative 4	Transportation Analysis Study Area (TASA)	Natomas Habitat Conservation Plan Boundary	Sunset Industrial Area
County Boundary	Alternative 2	Alternative 5	Planned / Proposed Development (includes existing conservation areas)	Proposed Placer County Conservation Plan/Western Placer Area Boundary (PCCP)	Existing Conservation Areas outside areas of Planned / Proposed, Existing and Approved Development
Railroads	Alternative 3	Project Study Area Boundary	Existing and Approved Development (includes existing conservation areas)	Study Area for Cumulative Impacts	Pending Conservation Area

Source: North Fork Associates; Mara Feeney Associates; Sutter County Planning Division; County of Sacramento Planning and Community Development Department; City of Sacramento Development Services Department; Sunset Industrial Area Plan; City of Lincoln Community Development Department; Natomas Basin HCP; Placer County Planning Department; City of Sacramento; City of Roseville



TIER 1 EIS/EIR

Cumulative Impacts Study Area – Wetlands and Vernal Pools

Figure G-27

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Table G-10
Summary of Development Assumptions – 2020 and 2040 Scenarios

Jurisdiction	Residential (DU)			Retail			Office			Industrial		
				(ksf)								
	2004	2020	2040	2004	2020	2040	2004	2020	2040	2004	2020	2040
Cities (Current General Plans)												
Roseville	40,889	60,039	60,039	9,857	13,200	14,334	5,712	12,441	12,441	8,630	14,000	17,403
Rocklin	19,641	28,606	28,606	2,126	3,900	4,590	797	3,000	5,788	2,791	5,000	6,494
Lincoln (2008)	10,478	22,218	22,218	431	2,000	3,000	584	2,491	2,491	3,779	4,700	5,899
Loomis	2,274	4,087	4,087	323	932	932	94	492	492	1,038	1,100	1,124
Auburn	5,135	7,022	7,022	1,375	1,667	1,758	613	943	943	266	400	555
Colfax	622	921	921	250	448	448	35	68	68	175	200	204
Unincorporated Areas (Current General Plans)												
Auburn/Bowman	9,056	17,144	17,144	1,545	2,600	2,932	1,480	2,946	2,946	953	2,000	2,767
Granite Bay	7,140	7,892	7,892	602	919	919	286	819	819	12	40	62
Sunset	–	–	–	0	357	357	166	762	762	3,527	6,000	7,528
Bickford	9	1,890	1,890	3	105	105	–	–	–	–	–	–
Riolo Vineyard	6	958	958	–	88	88	–	–	–	–	–	–
Other Dry Creek	956	3,461	3,461	47	224	224	–	157	157	172	600	897
Other Unincorporated	13,457	19,938	19,938	450	1,040	1,225	137	400	400	533	600	747
Major Projects in West Placer County												
Curry Creek (Placer Co)	–	–	16,206	–	–	2,025	–	–	2,122	–	–	–
Regional University (Placer Co)	–	–	4,387	–	–	215	–	–	75	–	–	–
Lincoln SOI Expansion	–	–	33,720	–	–	5,659	–	–	5,748	–	–	2,700
Placer Ranch (Roseville)	–	–	6,759	–	–	1,047	–	–	5,243	–	–	4,185
Placer Vineyards (Placer Co)	147	7,261	14,132	–	1,095	1,857	–	162	2,073	31	–	–
Creekview (Roseville)	–	–	2,600	–	–	300	–	–	–	–	–	–
Sierra Vista (Roseville)	–	–	10,000	–	–	1,000	–	–	700	–	–	–
Total Placer County	109,810	181,437	261,980	17,008	28,575	43,015	9,904	24,681	43,268	21,906	34,640	50,565
South Sutter (South of Howsley)	360	400	17,500	12	20	2,188	78	100	1,500	292	600	3,000

Source: DKS Associates, 2007a

Notes: ksf = 1,000 square feet
DU = dwelling units

By projecting forward 20 years after opening year, the Draft Tier 1 EIS/EIR evaluated the potential contribution of the Parkway to cumulative impacts under the worst-case scenario, as the projected growth in the region is implemented over time and potential adverse impacts associated with this growth, such as loss of biological resources and habitat fragmentation, continue to occur. The cumulative impact analysis in the Draft Tier 1 EIS/EIS also provided a reasonable worst-case analysis because it did not include implementation of the PCCP. The 2040 Cumulative Development Scenario as modified by the additional projects identified above continues to represent a conservative approach to cumulative impacts analysis. However, at the request of USCOE and U.S. EPA this analysis does consider the PCCP as currently proposed.

5.2.3 Overview of Vernal Pools and Other Wetlands in the Study Area

The Natomas Basin Habitat Conservation Plan and Placer County Conservation Plan

The expanded cumulative impact study area overlaps two regional conservation plans: the approved Natomas Basin Habitat Conservation Plan (NBHCP) in northern Sacramento County and southern Sutter County and the proposed PCCP in western Placer County (Figure G-27). These regional plans address the historical context and the current health of vernal pools and other wetlands that are affected by the Parkway project.

The NBHCP applies to the 53,341-acre interior of the Natomas Basin, located in the northern portion of Sacramento County and the southern portion of Sutter County (Figure G-27). The eastern boundary of the NBHCP is slightly west of the western margin of the PCCP study area. The NBHCP area contains incorporated and unincorporated areas within the jurisdiction of the City of Sacramento, Sacramento County, and Sutter County. The purpose of the NBHCP is to promote biological conservation, economic development, and the continuation of agriculture within the Natomas Basin. The NBHCP establishes a multi-species conservation program to mitigate the expected loss of habitat values and incidental take of protected species that would result from urban development, operation of irrigation and drainage systems, and rice farming. The goal of the NBHCP is to preserve, restore, and enhance habitat values found in the Natomas Basin while allowing urban development to proceed according to local land use plans.

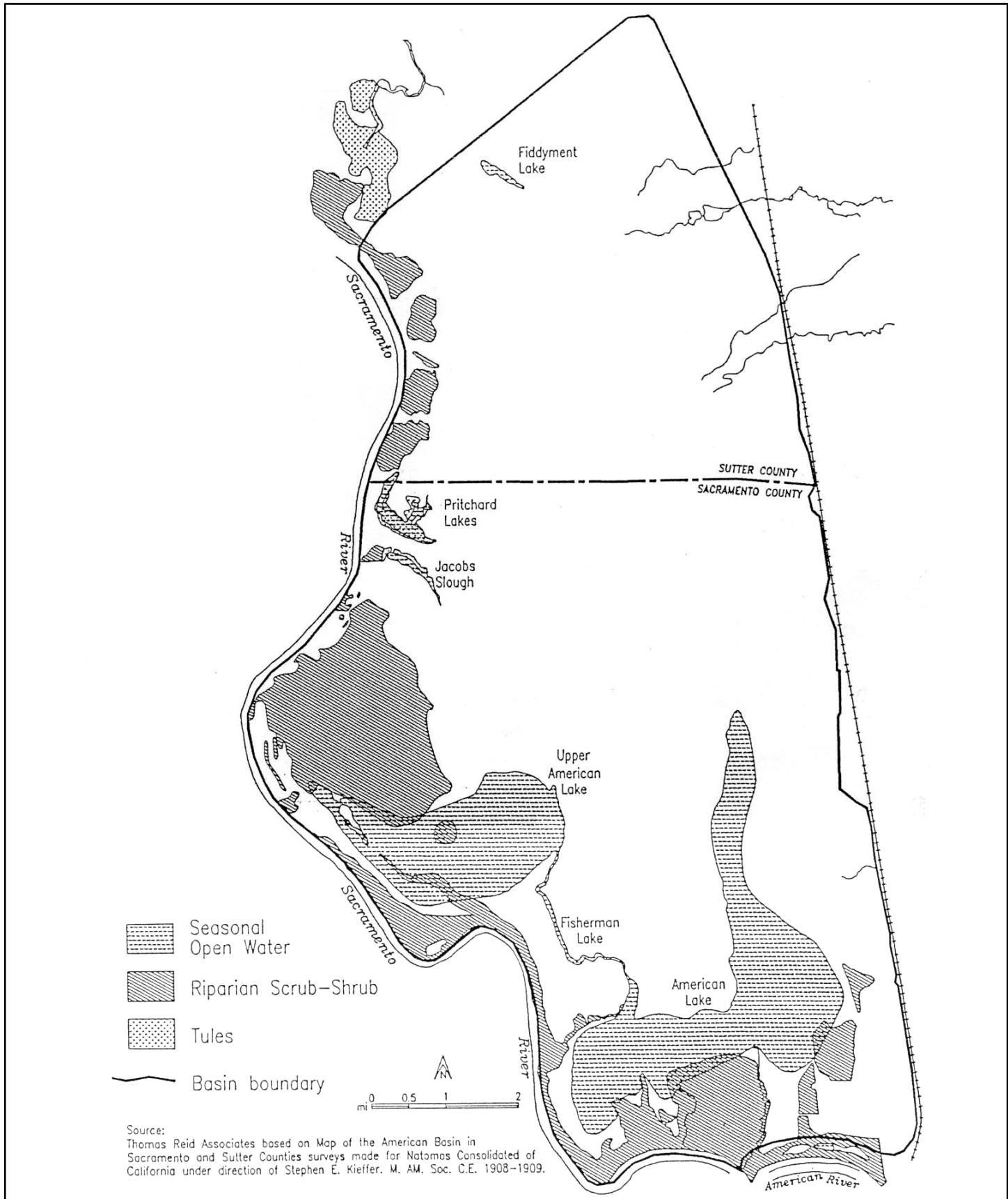
The PCCP is a proposed project that could limit the cumulative impact scenario by preserving lands that may otherwise be left open for development. The PCCP is a Placer County program consisting of a Natural Community Conservation Plan and a Habitat Conservation Plan intended to protect the County's diverse open-space and agricultural resources. It is also intended to promote viable economic opportunities within the County. The PCCP is being developed pursuant to policy direction from the 1994 General Plan.

The PCCP addresses approximately 269,800 acres of western Placer County, termed the Western Placer Area (WPA) in the PCCP. The plan area is bordered on the west by Sutter County, on the north by Yuba County, and on the south by Sacramento County (Figure G-27). The area contains 53,966 acres of land in Placer County and includes the city of Lincoln.

Historical Context

The analysis in this section uses the best available historical data, which provides information for two areas called the WPA and the area covered by the adopted NBHCP. Neither the WPA nor the NBHCP are exactly analogous to the study area described above.

Vernal pool complexes are vulnerable to development because they occur on level or gently rolling terrain that is accessible and suitable for development. Figure G-28 shows vernal pools in the Natomas



Source: Natomas Basin Conservancy; NBHCP, 2003.



Tier 1 EIS/EIR

Natomas Basin Land Cover 1908

Figure G-28

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Basin in 1908. It is estimated that more than 75 percent of California’s vernal pools have been lost to agricultural development and urbanization (Holland, 1998). An analysis of historical (1937) air photos of western Placer County indicates a similar magnitude of habitat loss (Placer County, 2005). Only a quarter of the vernal pool complexes identified in the 1937 aerial photos were still present in 2002. Additional losses have occurred since 2002.

The Central Valley of California, which includes Placer and Sutter counties, included an estimated area of 4 million acres of wetlands in the 1850s (USFWS, 1989). This was reduced to approximately 619,000 acres by 1939. Between 1939 and the mid-1980s, this acreage had decreased by a further 32 percent to approximately 379,000 acres, or approximately 9 percent of the originally estimated 4 million acres (USFWS, 1989).

Table G-11 shows specific historic declines in acreage of wetlands, vernal pool complexes, and vernal pools in the areas covered by the proposed PCCP and the adopted NBHCP. The role of the Parkway build alternatives with respect to future cumulative impacts in the context of this historic decline is discussed below.

**Table G-11
Historical Impacts on Wetlands and Vernal Pool Complexes in the WPA and NBHCP**

Resource Category	WPA (1937) ²	WPA (2002)	Acres and Percentage of Loss between 1937 and 2002	NBHCP Area (1908)	NBHCP Area (2007) ⁹	Percentage of Loss between 1908 and 2007	Remaining Acres in WPA and NBHCP Areas ^{10, 11} (2002-2007)
Wetlands ¹	12,410 ³	2,517 ⁶	79% (9,893 acres)	6,439.47 ⁷	609.9	90.5% (5,829.57 acres)	3,126.90
Vernal pool complex	74,076 ⁴	18,519 ⁶	75% (55,557 acres)	None Present ⁸	466.39	N/A	18,985.39
Vernal pool wetlands	12,346 ⁵	3,086.5 ⁵	75% (9,259.5 acres)	None Present	77.73 ⁵	N/A	3,164.23 ⁵

Notes:

- ¹ Excludes ponds and streams in the WPA.
- ² Areas based on review of 1937 aerial photographs as described in PCCP, Section 3.3.3.3.4.
- ³ Historic wetland area in western Placer County area is estimated based on ratio of historic Central Valley wetland area to upland area: 619,000 acres of wetlands within 13,440,000 acres of the Central Valley = 0.046 acre of wetlands per acre of land (USFWS, 1989). Western Placer area is approximately 269,800 acres.
- ⁴ Area of historical vernal pool complex habitat is estimated based on extrapolation from current acreage assuming loss of approximately 75 percent of vernal pool complexes since 1937 as stated in PCCP, Section 3.3.3.3.4.
- ⁵ Vernal pool wetland area is estimated based on a typical density of vernal pools in a vernal pool complex of 1 acre of vernal pool wetland to every 6 acres of vernal pool complex.
- ⁶ Data from Table 3-3, PCCP.
- ⁷ Data estimated on acreage calculations from digitized figure from Natomas Basin HCP (Figure G-28).
- ⁸ No estimate of historic vernal pool habitat in the Natomas Basin is available but it is unlikely that this area had extensive vernal pool habitat because most of the area would have been regularly flooded by the Sacramento River. This area likely supported extensive marsh and riparian habitats.
- ⁹ Data from Natomas Basin HCP (Natomas Basin Conservancy).
- ¹⁰ Calculated from WPA data (2002) and NBHCP data (2007). Assumes no change in the WPA between 2002 and 2007.
- ¹¹ Note that the total estimated resources in the cumulative impacts study area are not the same as those in the WPA and NBHCP areas combined due to boundary differences between the WPA and NBHCP areas and the cumulative impacts study area, as shown on Figure G-27. Total 2007 resources estimated from GIS data in the cumulative impacts study area are as follows: wetlands, 4,609 acres, vernal pool complexes, 17,666 acres, and vernal pools, 2,944 acres.

N/A = Not applicable, because no data are available for 1908.
 NBHCP = Natomas Basin Habitat Conservation Plan
 WPA = Western Placer Area

5.2.4 Direct and Indirect Impacts of the Proposed Project

Potential direct and indirect impacts of the proposed project are included in the Placer Parkway Draft Tier 1 EIS/EIR. Additional analyses of potential indirect impacts on biological resources are described in Section 4. The information in Section 4 is considered in this cumulative analysis.

5.2.5 Additional Analysis of Placer Parkway Contribution to Cumulative Impacts on Vernal Pools and Other Wetlands for Purposes of LEDPA Evaluation

The U.S. EPA has asked for a more quantified analysis of cumulative impacts on vernal pools and other wetlands, based on additional investigations and site-specific data that available. Only a limited amount of such data was available. The analysis provided below is based on available data that have been gathered through examination of public documents and communications with various individuals knowledgeable about particular projects, to obtain the most current information available to FHWA and the South Placer Regional Transportation Authority. Where specific additional data were not available, the analysis defaults to data from the NBHCP (Natomas Basin Conservancy, 2008) and the proposed PCCP data. For future development where the total acreage of a resource is available but the specific impacts are not available, the impacts have been conservatively estimated by assuming that all of the resources within the development would be affected. This approach overstates the total cumulative impacts, as no allowance is made for resources that could potentially remain unaffected under the no-development buffer zone proposed as part of the project.

Parkway and Past Projects in the WPA and NBHCP

Cumulative impact analysis typically looks at the contribution of a project to impacts associated with past, present, and reasonably foreseeable future projects, as defined by National Environmental Policy Act and the California Environmental Quality Act. The historic losses of vernal pools and other wetlands described above provide a context for the evaluation of future losses. These losses are illustrated in Table G-11. Historical losses of these habitats have been extremely high, and have occurred over a prolonged time period. This cumulative impact analysis evaluates the potential impacts of the Parkway in the context of historical losses. However, it was not deemed appropriate to take these losses into account in determining the potential *significance* of Parkway impacts, as this would result in the Parkway's potential contribution to cumulative impacts appearing negligible. Instead, a conservative approach has been applied where historic losses have been used to provide a context for the future potential cumulative losses from the Parkway and other projects.

As explained above, estimates of remaining resource acreages differ between the WPA/NBHCP areas and the cumulative impacts study area, as the cumulative study areas differs in size and shape from the WPA/NBHCP area and therefore resources may be present in one area but not the other.

The impacts on wetland habitats may be important in the context of the amount of disturbance that has historically occurred in the region. As shown in Table G-11, wetlands may have occupied approximately 12,410 acres in the WPA in 1937. This had declined by 79 percent by 2002, when only 2,517 acres were estimated to remain. In the area covered by the NBHCP (Figure G-28), wetlands declined by 90.5 percent between 1908 and 2002 (from 6,439 acres in 1908 down to only 609 in 2007), giving a total of 3,126 remaining wetland acres (Table G-11) for both areas. For the reasons explained previously, this number differs slightly from the total remaining wetlands in the *cumulative impact study area*. Based on calculations from available Geographic Information System (GIS) data (U.S. Fish and Wildlife Service [USFWS] National Wetlands Inventory; California Department of Fish and Game [CDFG] GIS data), approximately 4,609 acres of wetlands currently remain within the cumulative impact study area.

The PCCP also estimates that vernal pool complexes occupied approximately 74,076 acres in western Placer County in 1937. By 2002, vernal pool complexes had been reduced to 18,519 acres, a loss of approximately 75 percent. This total has been further reduced by additional development in the past 5 years. No historic vernal pool data are cited for the NBHCP area, but it is likely that most of the historic wetlands in this area were emergent marsh or riparian habitats. The NBHCP currently estimates that there are 466 acres of vernal pool complexes in the HCP area (Natomas Basin Conservancy, 2008), giving a total of 18,985 vernal pool complex acres (Table G-11) for both areas. For the reasons explained previously, this number differs slightly from the total remaining vernal pool complexes in the *cumulative impact study area*. Based on calculations from available data GIS data (USFWS National Wetlands Inventory; CDFG GIS data), approximately 17,666 acres of vernal pool complexes currently remain within the cumulative impact study area.

Table G-12 illustrates the contribution of the Parkway in the context of total past losses. As the historical data in this table are based on the WPA and NBHCP boundaries, the table relates to a much larger geographical area than is covered by the cumulative impact study area (Figure G-27), and also excludes large areas to the south and north of the Parkway build alternatives that are not included within the boundaries of these two plans. However, it does give a reasonable historic context against which to evaluate potential impacts of the Parkway.

**Table G-12
Contribution of Placer Parkway in the Context of Historical Losses of Wetlands and Vernal Pool Complexes in the WPA and NBHCP**

Resource Category	Original Acres in WPA and NBHCP (pre-1937)	Total Historic Losses (1908 to 2007) ³	Total Remaining Acres in WPA and NBHCP ⁴ (2007)	Parkway Impacts (Maximum Acres Among Alternatives)
Wetlands ¹	18,849.47	15,722.57	3,126.9	35.8
Vernal pool complex	74,076	55,557	18,985.39 ⁵	124.0
Vernal pool wetlands ²	12,346	9,259.50	3,164.23 ⁵	20.7

Notes:

- ¹ Excludes ponds and streams.
 - ² Vernal pool wetland area is estimated based on a typical density of vernal pools in a vernal pool complex of 1 acre of vernal pool wetland to every 6 acres of vernal pool complex.
 - ³ Estimated losses in WPA and NBHCP area based on available data as presented in Table G-11. Note that losses in WPA prior to 1937 are not included, because data are not available.
 - ⁴ From Table G-11, acres remaining in WPA and NBHCP area in 2002-2007. Note that the total estimated resources in the cumulative impacts study area differ as a result of boundary differences between the WPA and NBHCP areas and the cumulative impacts study area. Total 2007 resources estimated from GIS data in the cumulative impacts study area are as follows: wetlands, 4,609 acres, vernal pool complexes, 17,666 acres, and vernal pools, 2,944 acres.
 - ⁵ Numbers do not total as there were no vernal pools in the NBHCP area pre-1937, but an estimated 466.39 acres were present in 2007. Historical data for the WPA indicates vernal pools were present in the area (Table G-11).
- NBHCP = Natomas Basin Habitat Conservation Plan
WPA = Western Placer Area

Impacts of Reasonably Foreseeable Future Projects in the Study Area

As previously stated, historical data used in this analysis was developed for the WPA and NBHCP boundaries in order to provide a reasonable historical context for the analysis of past cumulative impacts. These data were used to estimate past losses and calculate remaining resources in the WPA and NBHCP areas. To evaluate more specifically the potential contribution of the Parkway to future cumulative impacts, as requested by U.S. EPA and USCOE relative to determination of the corridor most likely to

contain the LEDPA, it was necessary to develop additional data for the Parkway cumulative impacts analysis study area (see above and Figure G-27). Available USFWS and CDFG GIS data were used to calculate the amount of remaining resources in the cumulative impacts study area, because data on existing resources were available for the study area, unlike historic data. The two data sets are not identical, but the agency data are considered to be more accurate for purposes of this analysis. These data are presented in Table G-13. Estimates of remaining resources acreage differs between the WPA/NBHCP areas and the cumulative study area, as the cumulative impacts analysis study area is a smaller area than the WPA/NBHCP and is not entirely encompassed within the WPA and NBHCP boundaries.

Wetlands. As described above, available USFWS and CDFG files used for this cumulative impact evaluation estimates that approximately 4,609 acres of wetlands are still present in the study area (Table G-13). Other projects in the study area would potentially reduce this by up to 1,105.0 acres, a reduction of approximately 24 percent (Table G-14) of the remaining wetlands.

Vernal Pool Complexes. As described above, USFWS and CDFG files used for this cumulative impact evaluation estimates approximately 17,666 acres of vernal pool complexes remains in the study area. As shown on Table G-13, other reasonably foreseeable projects could impact approximately 7,971.65 acres of this habitat type in the study area, a reduction of approximately 45.06 percent (Table G-14).

Vernal Pool Wetlands. The area of vernal pool wetlands is estimated based on the area of vernal pool complexes. As discussed previously, approximately 17,666 acres of vernal pool complexes are estimated to be present in the study area as of 2007. The typical density of vernal pools in a vernal pool complex in the study area is estimated to be a ratio of one wetland acre for every 6 acres of vernal pool complex. Other reasonably foreseeable projects in the study area are estimated to potentially affect as much as 1,351.7 acres of vernal pools, a reduction of 45.8 percent (Table G-14). Based on an assumption of vernal pool density, most of the potentially affected vernal pool wetlands, approximately 1,198.9 acres, are located in the proposed expansion area of the City of Lincoln.

Cumulative Impacts of Placer Parkway and Other Reasonably Foreseeable Future Projects in the Study Area

Cumulative impacts to wetland habitats are summarized in Table G-14, and discussed below.

Wetlands. As stated previously, available USFWS and CDFG GIS files used for this cumulative impact evaluation estimate that approximately 4,609 acres of wetlands are still present in the study area (Table G-14). Approximately 28 to 35.8 acres of wetland impacts could occur as a result of the Parkway, which would be a maximum impact of approximately 0.78 percent of existing wetlands. In general, the Placer Parkway alternatives would contribute less than 1 percent of future cumulative impacts on these resources, depending on the build alternative. Other projects would cause impacts to 24 percent of existing wetlands.

Vernal Pool Complexes. As previously stated, the available USFWS and CDFG GIS files used for this cumulative impact evaluation estimate that approximately 17,666 acres of vernal pool complexes remain in the study area. Approximately 106.7 to 127.6 acres of vernal pool complexes (including vernal pool wetlands and associated uplands) could be affected by the Placer Parkway build alternatives (Table G-14), which would be a maximum loss of approximately 0.72 percent of existing vernal pool complexes. Other projects would cause impacts to 45.4 percent of existing vernal pool complexes.

Table G-13
Summary of Potential Impacts to Wetlands and Vernal Pools
Planned and Proposed Projects Excluding Placer Parkway

Resource Category	Existing Acres in Cumulative Impacts Study Area 2007	Estimated Individual Project Impacts												Totals Impacts All Other Projects (acres)
		Placer Ranch ⁴	Riolo Vineyard ⁵	Placer Vineyards ⁶	Sierra Vista ⁷	Regional University ⁸	Creekview ¹⁰	Curry Creek ¹¹	Sutter Point ¹¹	Roseville Retention Basin ¹²	Elverta/Rio Linda Specific Plan ¹³	Brookfield ^{11,14}	City of Lincoln Expansion ¹⁵	
Wetlands ¹	4,609	28.75	2.639	61.1	37.74	18	9.89	40.10	45.03	<1	14.63	22.89	824.55 ⁷	1,105.3
Vernal pool complex ²	17,666	29.1 ³	No impacts	63	50.7	30.77 ⁹	9.6	54.35	283.26	No impacts	56.76	251.21	7,193.6	8,022.35
Vernal pool wetlands ³	2,944	4.85	No impacts	25.5	8.45	5.15	1.3	9.05	47.21	No impacts	9.46	41.86	1,198.9	1,351.7

Notes:

- ¹ Excludes vernal pools, ponds, and streams; all other wetland types are included. Numbers in bold are actual impacts based on delineations.
- ² Vernal pool complexes include upland areas. Numbers in bold are actual impacts based on delineations.
- ³ All values except where in bold are estimated based on the average density of vernal pools in a typical vernal pool complex. It is reasonable to use a 6:1 ratio of upland acreage to vernal pool acreage. All impacts acreages exclude any mitigation opportunities that could be implemented. Numbers in bold are actual wetland impacts based on delineations. All vernal pool wetland values are included in vernal pool complex values.
- ⁴ Data from Placer Ranch Specific Plan (PRSP) Second Administrative Draft EIR, Table 6.4. As of the time this analysis was prepared, the developer for the proposed PRSP has suspended work for approximately three months, for reasons related to estate planning. The application submitted to the City of Roseville has not been withdrawn.
- ⁵ Data from Riolo Vineyards Specific Plan DEIR, Table 6-7.
- ⁶ Data from Section 4.4.2, Table 4.4-10 Placer Vineyards Specific Plan Revised Draft EIR.
- ⁷ Data reflect estimated impacts to wetlands on site.
- ⁸ Data from Regional University Specific Plan DEIR, Section 6.4.1
- ⁹ Numbers represent actual vernal pool complexes within the project study area; the assumption is that all vernal pools could potentially be impacted.
- ¹⁰ Data estimated from Creekview wetland delineation and vernal pool field survey
- ¹¹ Acreage calculated based on total wetlands and vernal pools within project area; the assumption is that all resources could be potentially impacted
- ¹² Data from City of Roseville Retention Basin Project, DEIR.
- ¹³ Data from Elverta Specific Plan Final EIR.
- ¹⁴ Acreages were derived from the PCCP, not delineated on site.
- ¹⁵ Data from Table 7-1, City of Lincoln General Plan Update, Recirculated EIR. Impacts are estimated and are the maximum that could occur assuming all resources are affected.

Table G-14
Summary of Potential Cumulative Impacts to Wetland Habitats from Placer Parkway and Other Planned and Proposed Projects in the Study Area

Resource Category	Existing Acres (2007)	Placer Parkway (Acres and Percentage of Impacts on Existing)					Estimated Cumulative Impacts		
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Totals Impacts: All Other Projects (Acres and percentage of impacts of existing)	Total Impacts by percentage of Parkway and Other Projects (maximum)	Maximum Parkway Impacts as Percentage of Total Impacts
Wetlands ¹	4,609	35.8 0.78%	30.9 0.67%	32 0.69%	28.3 0.61%	28 0.61%	1,105.3 24%	24.78%	0.78%
Vernal pool complex ²	17,666	122.7 0.69%	124.1 0.70%	127.6 0.72%	106.7 0.60%	124 0.70%	8,022.35 45.06%	46.12%	0.72%
Vernal pool wetlands ³	2,944	20.5 0.69%	20.7 0.70%	21.3 0.72%	17.8 0.60%	20.7 0.70%	1,351.7 45.9%	46.62%	0.72%

Notes:

¹ Excludes vernal pools, ponds, and streams; all other wetland types are included.

² Vernal pool complexes include upland areas.

³ All values are estimated based on the average density of vernal pools in a typical vernal pool complex. It is reasonable to use a 6:1 ratio of upland acreage to vernal pool acreage. "Wetlands" include non-jurisdictional wetlands but exclude streams, ponds and creeks. All impacts acreages exclude any mitigation opportunities that could be implemented. Numbers in bold are actual wetland impacts based on delineations. All vernal pool wetland values are included in vernal pool complex values.

Vernal Pool Wetlands. The area of vernal pool wetlands is estimated based on the area of vernal pool complexes.⁹ Approximately 17,666 acres of vernal pool complexes are estimated to be present in the study area as of 2007. The typical density of vernal pools in a vernal pool complex in the study area is estimated to be a ratio of 1 wetland acre for every 6 acres of vernal pool complex, or 2,944 acres of vernal pool wetlands in the study area. The Parkway alternatives could affect 17.8 to 21.3 acres of vernal pool wetlands, a maximum impact of approximately 0.72 percent (percentages are similar to vernal pool complexes due to derivation of numbers as described in Table G-14, footnote 3). Other reasonably foreseeable projects in the study area are estimated to potentially affect as much as 1,351.7 acres of vernal pool wetlands, a reduction of 45.9 percent (Table G-14)

In summary, this analysis supports the conclusions in the Draft Tier 1 EIS/EIR that the potential adverse impacts on sensitive biological resources associated with Placer Parkway are considered cumulatively considerable, because it would contribute incrementally to total projected losses in the context of past, present, and future losses. Losses in the context of projected future losses only would be less than 1 percent.

5.3 CONCLUSIONS

The USFWS recovery plan for vernal pool species specifies that at least 85 percent of the core vernal pool habitat within western Placer County should be preserved to meet the recovery goals (USFWS, 2005). Therefore, the estimated cumulative impacts by 2040 for all projects including the Parkway would

⁹ Based on the assumption of vernal pool density described above, most of the potentially affected vernal pool wetlands, approximately 1,198.9 acres, are located in the proposed expansion area of the City of Lincoln. If the City of Lincoln Expansion area were excluded from this analysis, the Placer Parkway project alternatives would contribute approximately 10 to 20 percent of the potential future impacts to vernal pools and other wetlands compared to the impacts of other projects anticipated in the study area by 2040 other projects would contribute 80 to 90 percent. However, this estimate does not include the potential avoidance and minimization that would be feasible in the Tier 2 project development for the Parkway project.

substantially exceed the recovery goal of limiting future losses to less than 15 percent of the core vernal pool habitat although greater losses would potentially be allowed by the USFWS if the PCCP is approved.

Table G-12 presents an overview of past losses in the WPA and NBHCP. In these areas there were historically approximately 18,849 acres of wetlands, which were reduced by approximately 15,723 acres by 2007, a total loss of approximately 83 percent of the original wetland acreage. There were historically approximately 74,076 acres of vernal pool complexes, which were reduced by approximately 55,557 acres by 2007, a total loss of approximately 75 percent of the original acreage. With respect to vernal pools, there were historically approximately 12,346 acres, which were reduced by approximately 9,259.5 acres by 2007, a total loss of approximately 75 percent of the original vernal pool acreage.

In the context of these historic losses, the Parkway's impacts are low, ranging from with a maximum of 0.23 percent of total historic losses for wetlands and a maximum of 0.22 percent of total historic losses for vernal pools and complexes. However, as previously stated, because historical losses of these habitats have been extremely high, the relatively small contribution of the Parkway to these losses has not been used to determine the significance of overall cumulative contribution, as this would make the Parkway's potential contribution to total cumulative impacts appear negligible.

The available quantitative data indicate that the proposed Parkway project would make a very minor contribution to future cumulative impacts on vernal pools and other wetlands habitat in western Placer County (Table G-14). For all habitats, the maximum impacts of the Parkway would be less than 1 percent of remaining habitat, as discussed above. Alternative 1 would make the greatest contribution to cumulative wetland impacts (0.78 percent), and Alternative 5 the least (0.61 percent). With respect to vernal pool complexes and vernal pool wetlands, Alternative 3 would make the greatest contribution (0.72 percent) and Alternative 4 the least (0.60 percent). Although these levels of impact are relatively minor, it is still considered potentially significant because total impacts would exceed the maximum losses that USFWS considers to be viable for meeting the vernal pool species recovery goal. This contribution is considered to be substantial at both the individual project and the cumulative levels. This conclusion is consistent with the conclusions for cumulative effects that were presented in the Draft Tier 1 EIS/EIR.

Potential contribution to cumulative effects would vary only slightly among the proposed Parkway build alternatives. Alternatives 4 and 5 would have the lowest contribution to cumulative impacts to vernal pool complexes and wetlands, respectively, and would therefore be the least environmentally damaging to wetlands and waters of the United States.

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