APPENDIX UTIL-2: CALIFORNIA AMERICAN WATER COMPANY CORRESPONDENCE AND WATER SUPPLY ASSESSMENT

THESE CORRESPONDENCES INCLUDED FOUR ADDITIONAL SITES THAT ARE LONGER INCLUDED IN THE PROJECT. ADDITIONALLY, NUMBERING OF THE CANDIDATE REZONE SITES HAVE BEEN MODIFIED SINCE THE OCCURRENCE OF THESE CORRESPONDENCES. **Todd Smith**, **Planning Director** Planning and Environmental Review



Troy Givans, Director Department of Community Development

County of Sacramento

December 29, 2023

Audie Foster, General Manager California American Water 4701 Beloit Drive Sacramento, CA 95838 audie.foster@amwater.com

Subject:Request for a Water Supply Assessment for the Sacramento County Regional Housing
Needs Allocation (RHNA) Rezone Project (Control No. PLNP2020-00042)

Dear Audie Foster,

Planning and Environmental Review (PER) is currently preparing the environmental analysis associated with the Sacramento County Regional Housing Needs Allocation (RHNA) Rezone Project (Project). The Project's revised Notice of Preparation (NOP) was released on December 22, 2023, and may be viewed online at: <u>https://planning.saccounty.gov/PlansandProjectsIn-Progress/Pages/Countywide-Rezone-Program.aspx</u>.

The Sacramento County Housing Element of 2021-2029 identifies a shortfall of 2,884 units for the lower-income category (includes the low, very low, and extremely low income categories; incomes ranging from \$0 to \$69,050 annually) in the County. Simply, there is insufficient appropriatelyzoned sites to accommodate the County's RHNA obligation for the lower-income category. As such, PER is undertaking a rezone of ± 248.33 acres comprising 83 candidate rezone sites within the unincorporated County to provide additional lower-income (to fulfill the RHNA obligation and increase the buffer) and moderate income (to increase the buffer) category housing opportunities. The Project does not propose to construct new residential or other development on the ± 248.33 acres proposed to be rezoned; rather, it provides capacity for future development of housing units to meet the County's remaining unmet RHNA of 2,884 lower income category units, consistent with State law. The planning horizon year for the Project is 2029.

Attachment 1 lists the 33 candidate rezone sites (Sites 5, 8, 16-17, 23, 27-28, 31, 33-42, 44, 48-59, and 62-23) within California American Water's service area that are proposed to be rezoned with the Project. Information regarding site acreage, existing and proposed zoning designations, and net increase in units are also provided. The net increase in residential units is calculated as the difference between an existing zoning designation's maximum density and the proposed zoning designation's maximum density. For example, a 1-acre site currently zoned RD-20 (maximum density of 20 units per acre) with a proposed zoning of RD-30 (maximum density of 30 units per acre) nets 10 additional units with a rezone. Attachment 2 depicts the locations of these candidate rezone sites within California American Water's service area, as well as individual site maps. In total, the Project is anticipated to result in a net increase of <u>2,105 units (1,990 lower-income units</u> <u>and 115 moderate-income units</u>) within California American Water's service area. It is noted that Section 4.5.2 of California American Water's 2020 Urban Water Management Plan for the Sacramento Mian District provides a projection of water use for lower income households. Pursuant to California Water Code §10910 through 10915, PER requests the following information:

- 1. Whether the projected water demand associated with the Project was include as part of the most recently adopted urban water management plan; and
- 2. If the Project's water demand was not included as part of the most recently adopted urban water management plan, since the Project would result in a net increase of more than 500 dwelling units within California American Water's service area, please provide a water supply assessment (WSA) for the Project.

California Water Code §10910(c) identifies that the WSA shall include a discussion regarding whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with a proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

Additionally, PER requests any comments (including conditions of approval or advisories) California American Water may have for the Project. If you have any questions or would like to set up a meeting to further discuss the Project, please contact me at <u>shenj@saccounty.gov</u> or 916.875.3711.

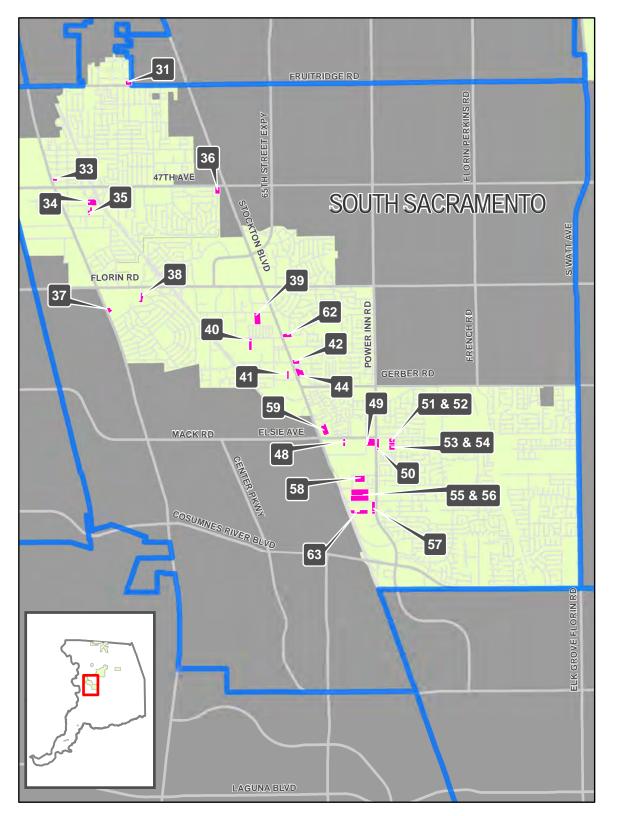
Sincerely,

Jessie Shen Senior Planner

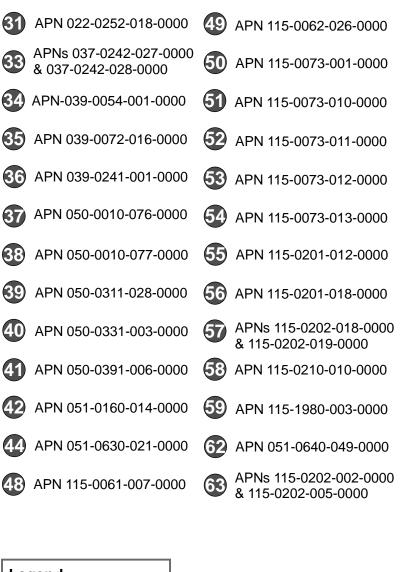
Attachments

Attachment 1 – California American Water List of Candidate Rezone Sites Attachment 2 – California American Water Maps of Candidate Rezone Sites

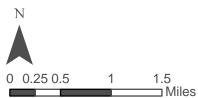
Site #	APN	Address/Siting Description	Lot size / Portion of Lot Rezoned (net acres)	Zoning Designation/SPA/ Specific or Master Plan Area (Current)	Zoning Designation (Proposed)	Net Increase
5	209-0720-027-0000	370 feet N Roseville Road/Antelope Road	5.28	MP	RD-40	211
8	220-0311-019-0000	5804 Garfield Avenue	0.89	RD-20	RD-30	9
16	075-0020-015-0000	9425 Folsom Boulevard	11.45	RD-20/O	RD-40/O	229
17		450 feet NE Folsom Boulevard/Paseo Rio Way	2.45	RD-20(PC)	RD-40	49
23	222-0024-001-0000 & 222-0024-041-0000	E Roseville Road/Elkhorn Boulevard overpass	9.96	RD-10	RD-30	79
27	203-0080-021-0000	120 feet W of Elverta Road/Bellingrath Drive	1.15	RD-5	RD-30	29
28	203-0080-027-0000	480 feet W of Elverta Road/Bellingrath Drive	5.86	AR-5	RD-30	174
31	022-0252-018-0000	4541 Fruitridge Road	1.77	RD-20	RD-30	18
33	037-0242-027-0000 & 037-0242-028-0000	SE 45th Avenue/Franklin Boulevard & 6301 Franklin Boulevard	1.73	LC	RD-30	0
34	039-0054-001-0000	4001 48th Avenue	3.51	RD-20	RD-30	35
35	039-0072-016-0000	NE 49th Avenue/Wesley Avenue	1.39	RD-20	RD-30	14
36	039-0241-001-0000	240 feet W of 47th Avenue/Stockton Boulevard	2.14	RD-20	RD-30	22
37	050-0010-076-0000	180 feet SE of Franklin Boulevard/Meadowgate Drive	1.05	GC	RD-40	11
38	050-0010-077-0000	7236 E Parkway	2.08	RD-20	RD-30	21
39	050-0311-028-0000	630 feet W of 66th Avenue/Stockton Boulevard	4.39	RD-20	RD-40	88
40	050-0331-003-0000	6130 Orange Avenue	2.35	RD-5	RD-30	59
41	050-0391-006-0000	6707 Stacy Avenue	1.10	RD-5	RD-30	28
42	051-0160-014-0000	NE Stockton Boulevard/Walter Avenue	1.68	RD-20	RD-40	34
44	051-0630-021-0000	NE Stockton Boulevard/Whitewillow Drive	3.21	RD-20	RD-40	64
48	115-0061-007-0000	7604 Elsie Avenue	1.22	RD-5	RD-15	12
49	115-0062-026-0000	7825 Robinette Road	3.08	RD-5	RD-40	108
50	115-0073-001-0000	SE Elsie Avenue/Power Inn Road	1.78	RD-5	RD-15	18
51	115-0073-010-0000	SW Elsie Avenue/Iona Way	0.73	RD-5	RD-15	7
52	115-0073-011-0000	140 feet W of Elsie Avenue/Iona Way	0.84	RD-5	RD-15	8
53	115-0073-012-0000	220 feet S of Elsie Avenue/Iona Way	0.94	RD-5	RD-15	10
54	115-0073-013-0000	350 feet S of Elsie Avenue/Iona Way	1.87	RD-5	RD-15	19
55	115-0201-012-0000	7901 Stevenson Avenue	6.51	RD-5	RD-30	163
56	115-0201-018-0000	7516 Rangeview Lane	6.98	RD-5	RD-40	245
57	115-0202-018-0000 & 115-0202-019-0000	8016 Stevenson Avenue & 540 feet S of Stevenson Avenue/Power Inn Road	2.65	RD-5	RD-30	66
58	115-0210-010-0000	540 feet W of Lenhart Road/Power Inn Road	4.13	RD-5	RD-15	41
59	115-1980-003-0000	7333 Elsie Avenue	3.64	RD-20	RD-40	73
62	051-0640-049-0000	NE Stockton Boulevard/Orange Avenue			RD-40	45
63	115-0202-002-0000 & 115-0202-005-0000	8095 E Stockton Boulevard & 8099 E Stockton Boulevard	4.66	RD-5/NPA (Victory Avenue)	RD-30	116

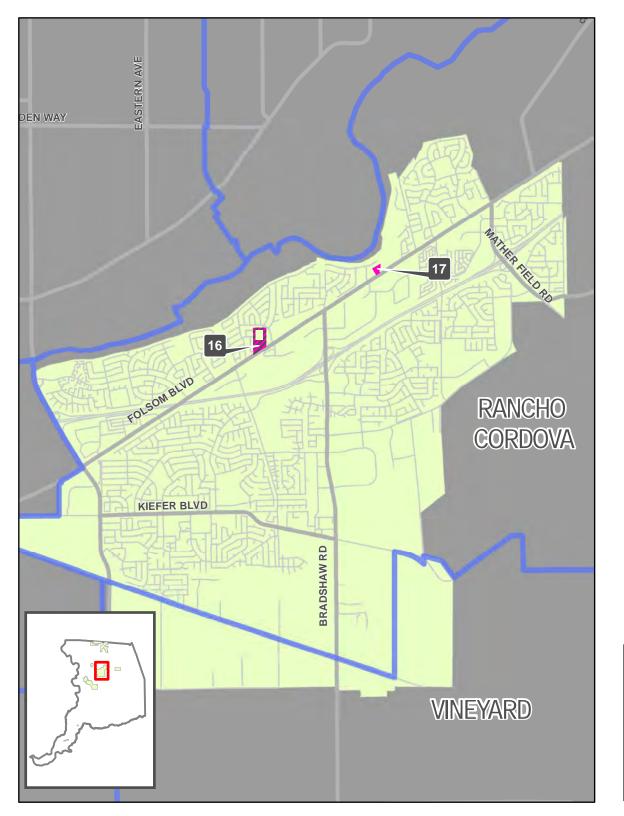


California American Water, Part A









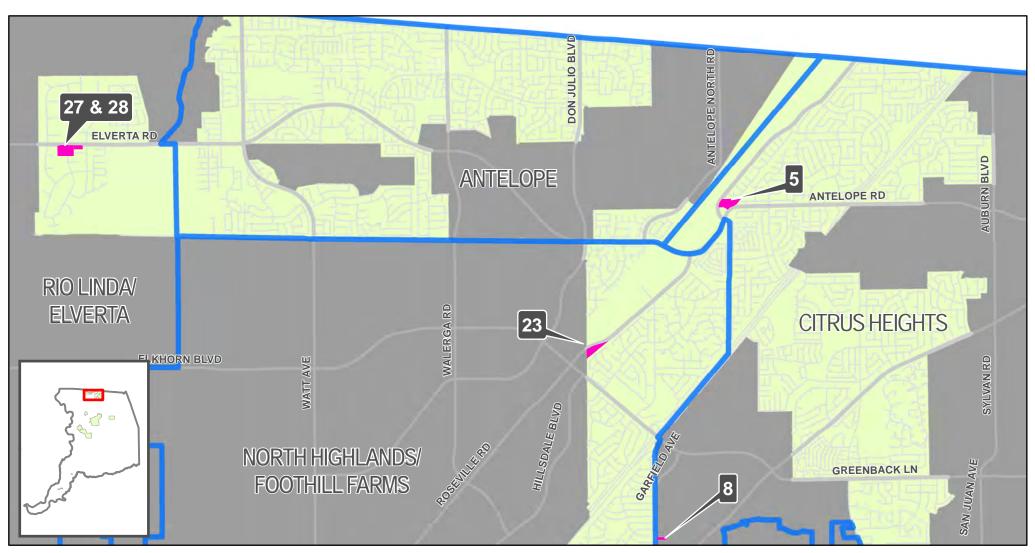
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Miles

16 APN 075-0020-015-0000

17 APN 075-0440-024-0000





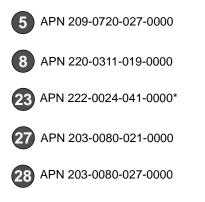
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Miles

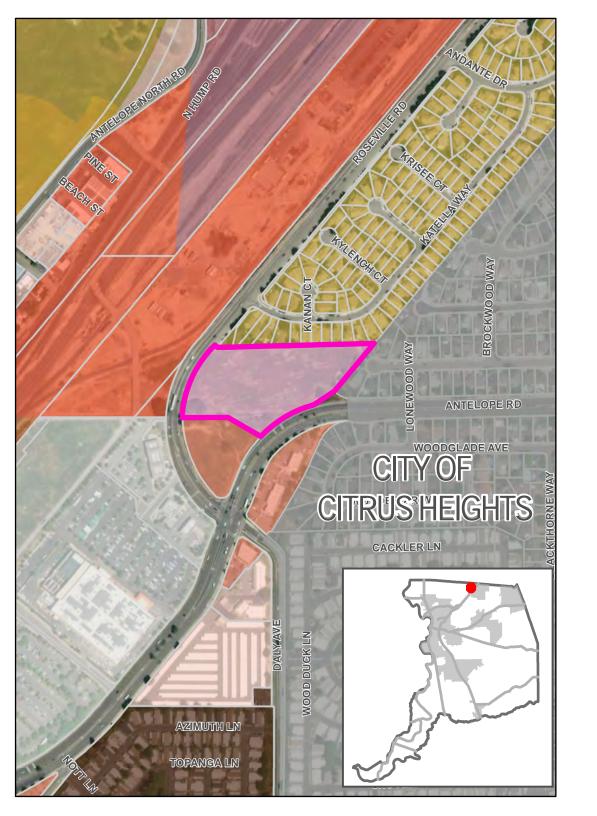
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California American Water, Part C



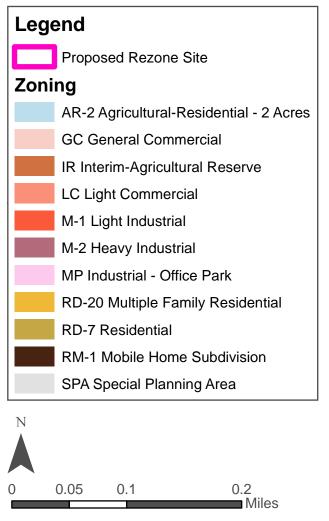


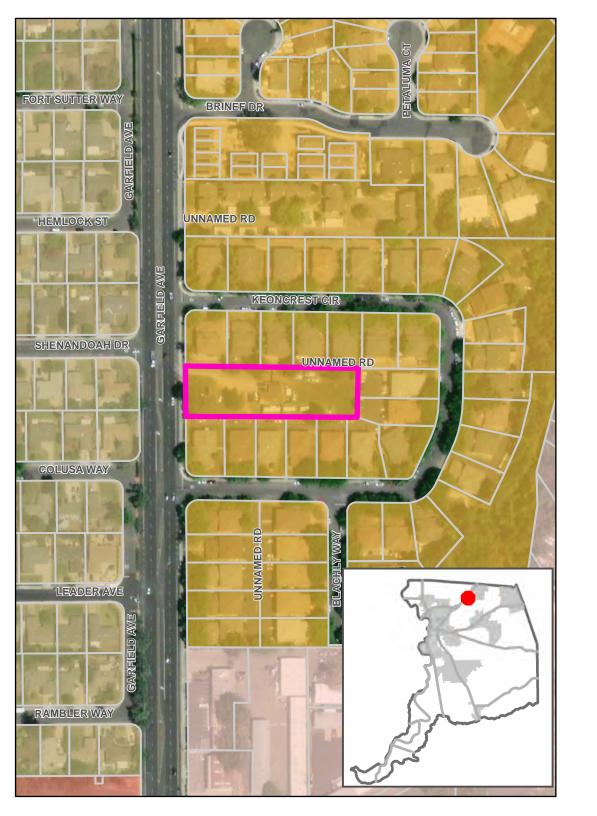
*Overlaps with Sacramento Suburban Water District



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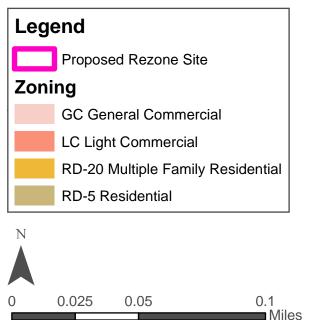
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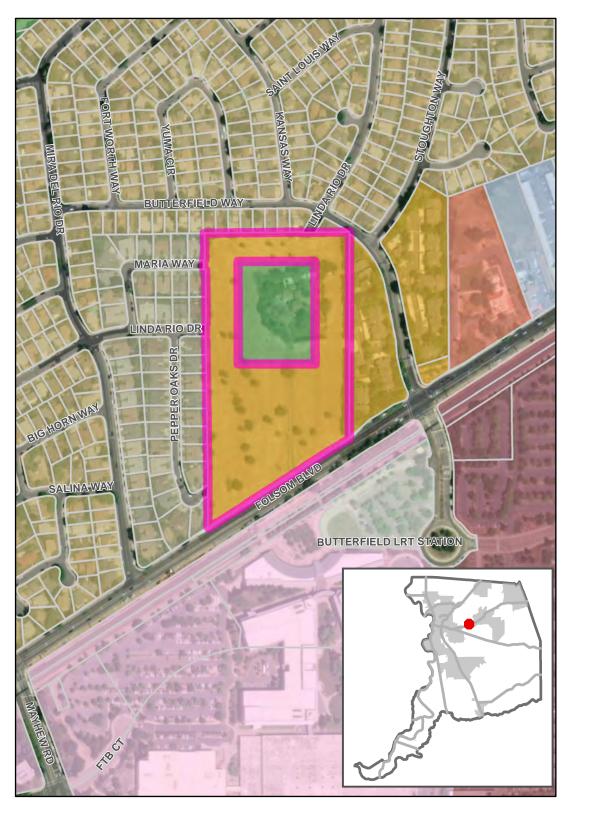




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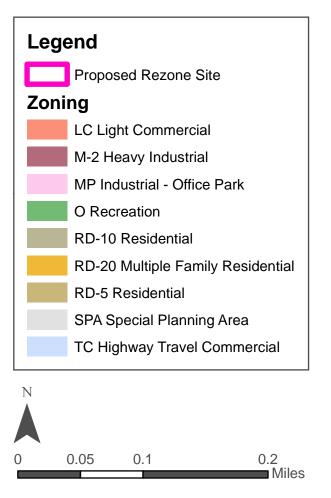
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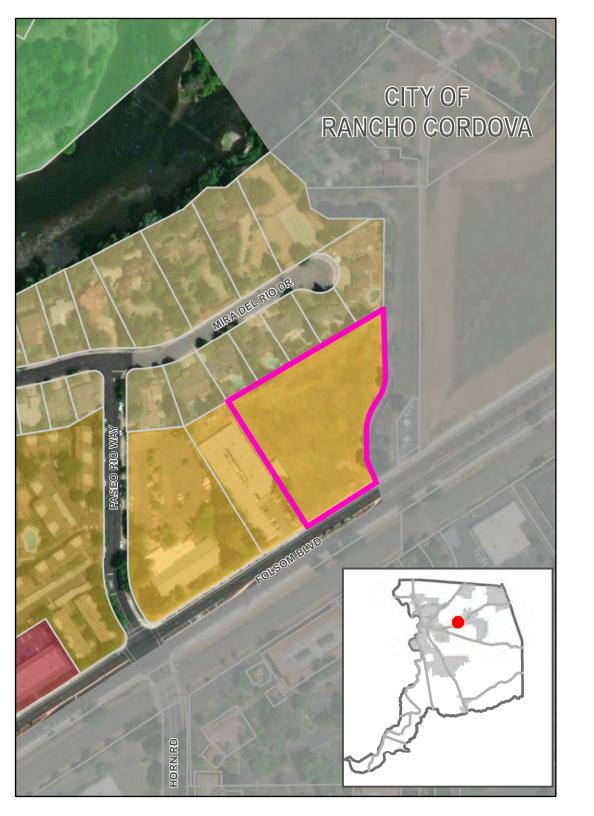




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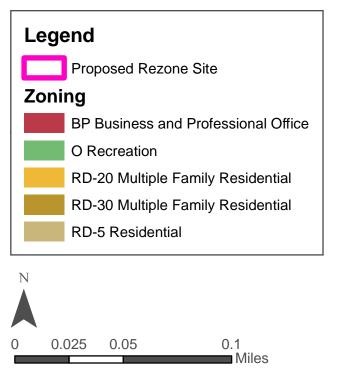
9425 Folsom Boulevard, Cordova

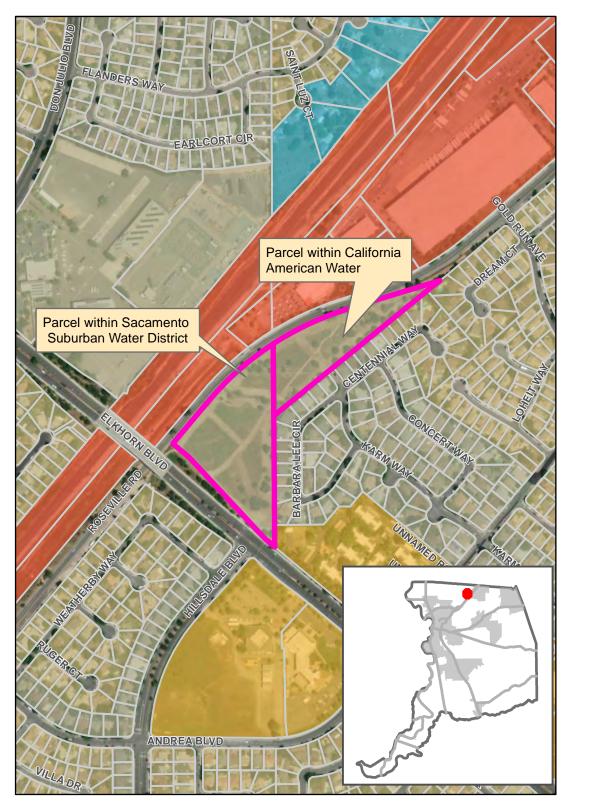




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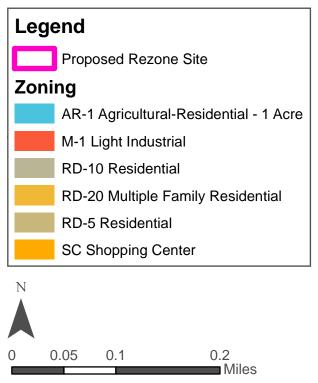
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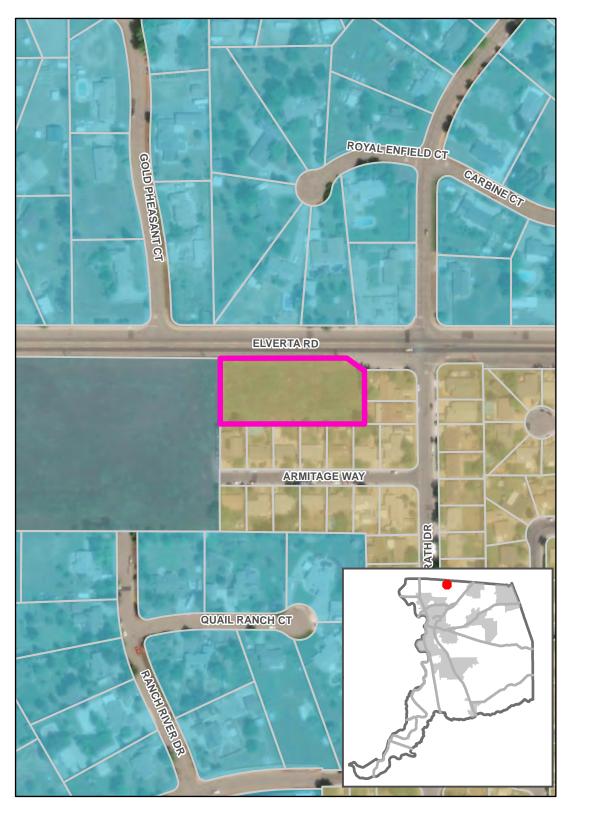




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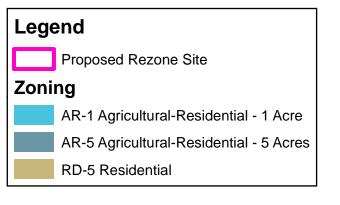
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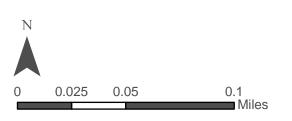


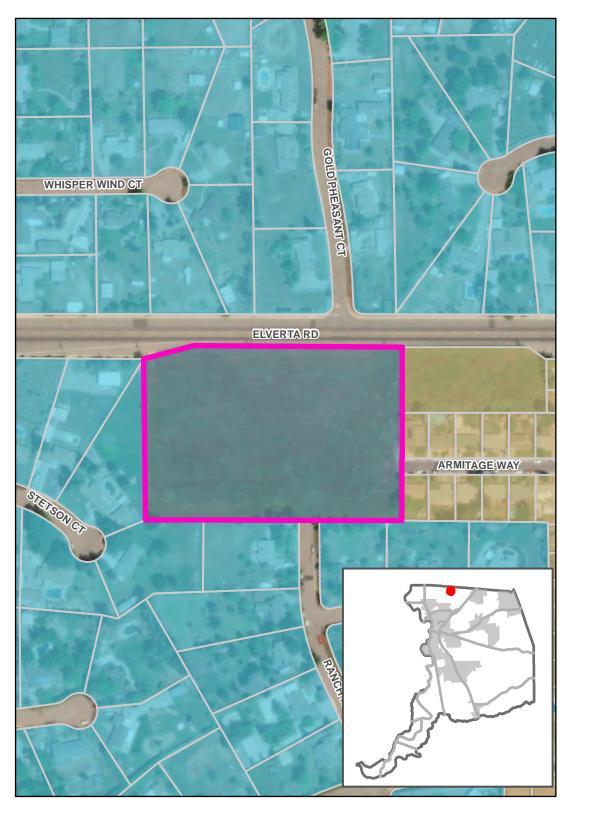


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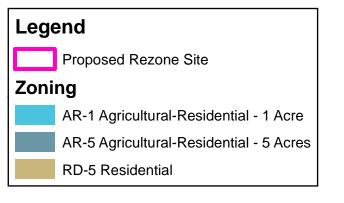




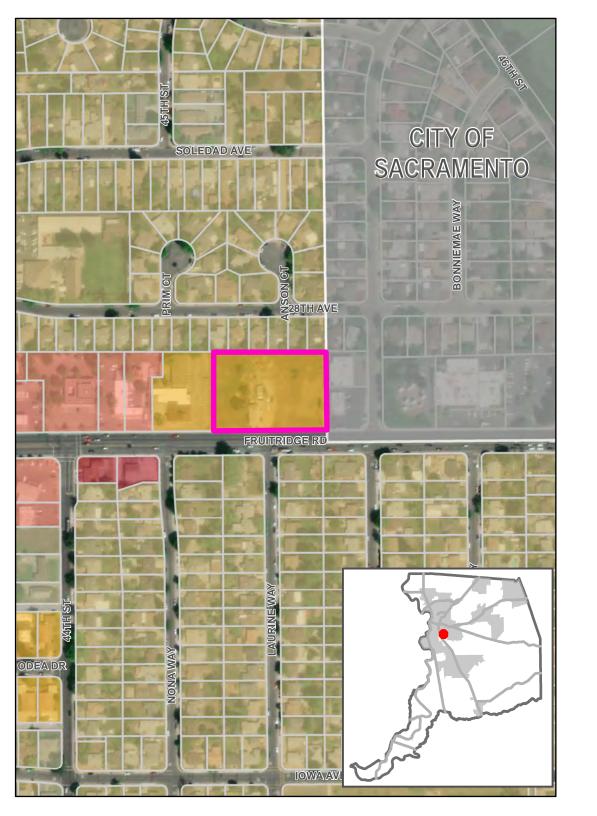


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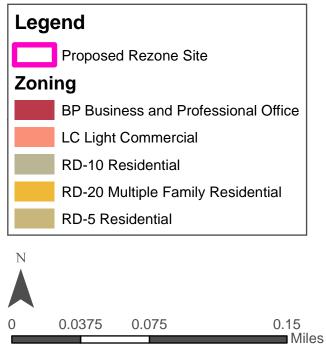


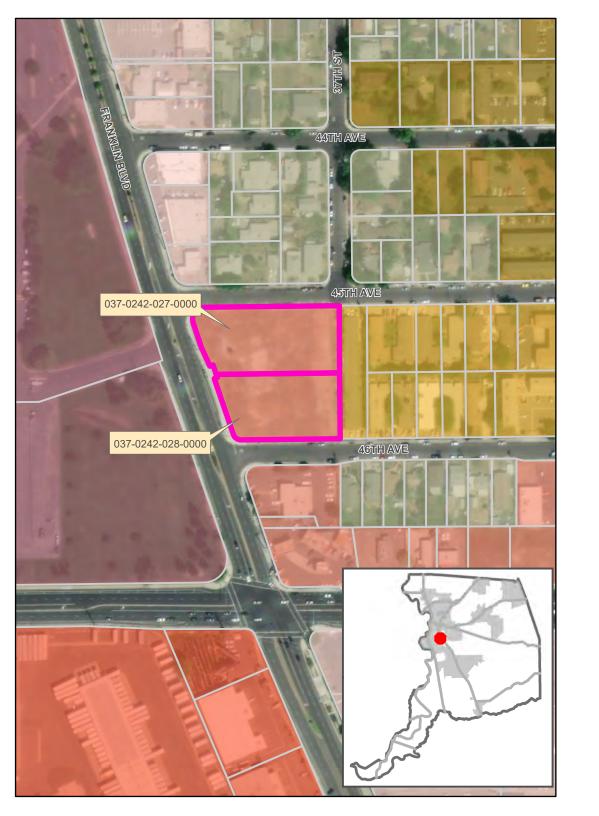




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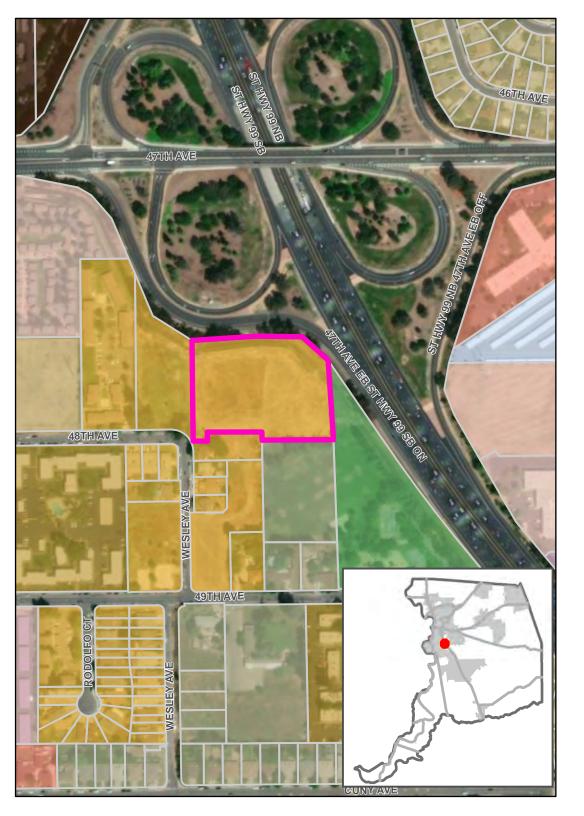




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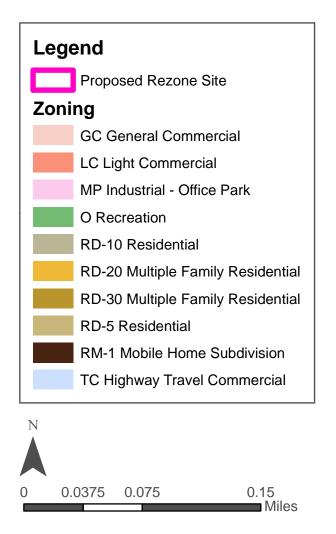
Southeast 45th Avenue/Franklin Boulevard & 6301 Franklin Boulevard, South Sacramento

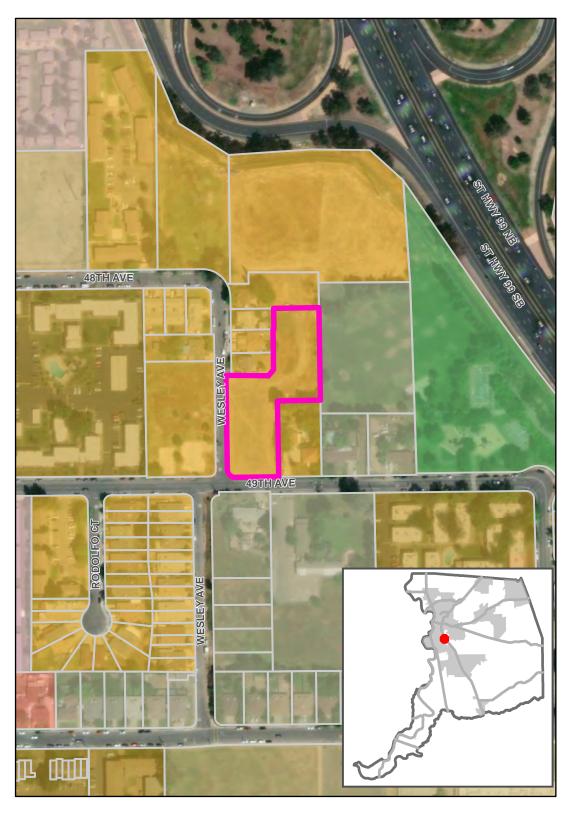




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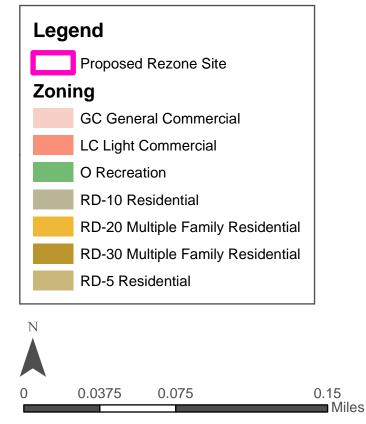
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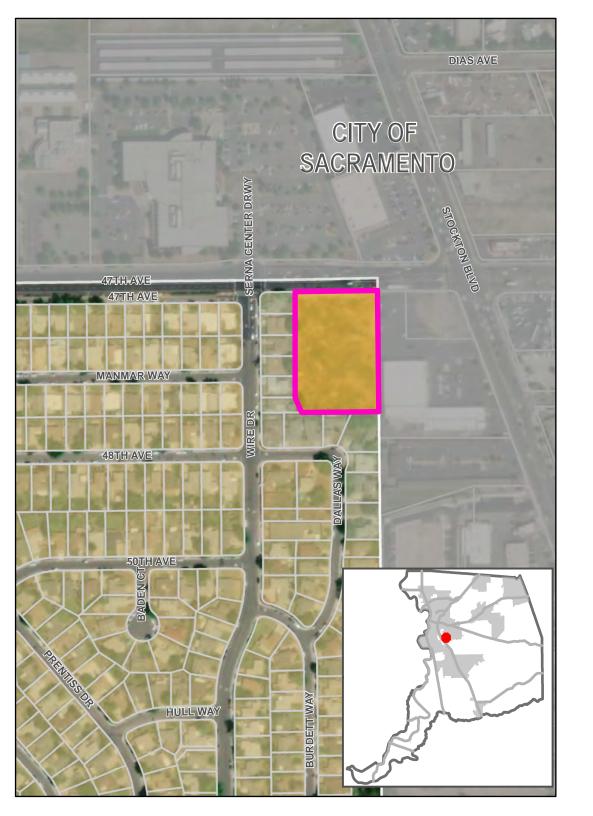




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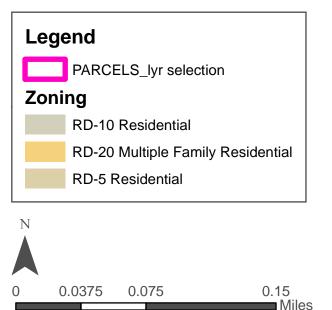
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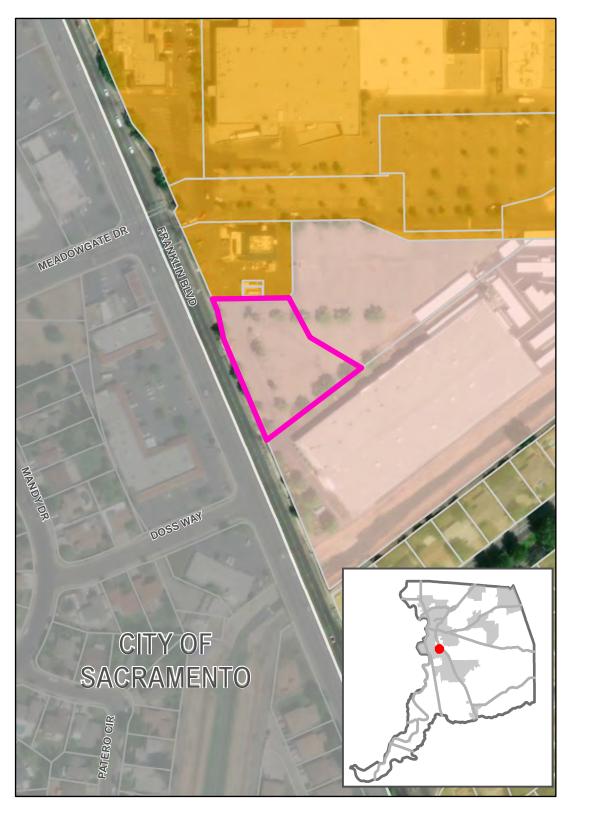




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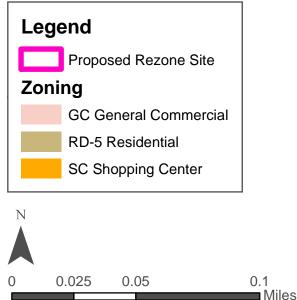
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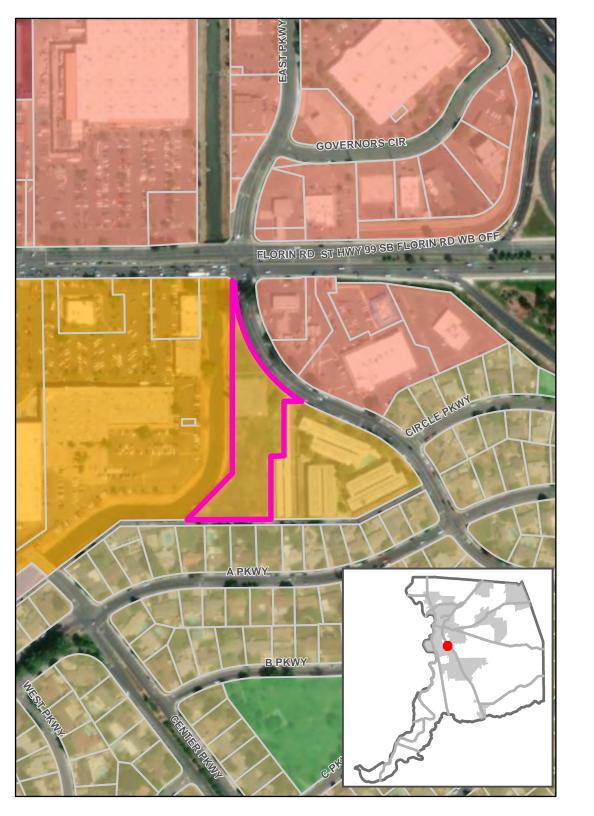




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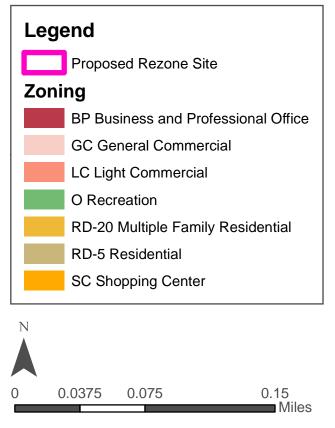
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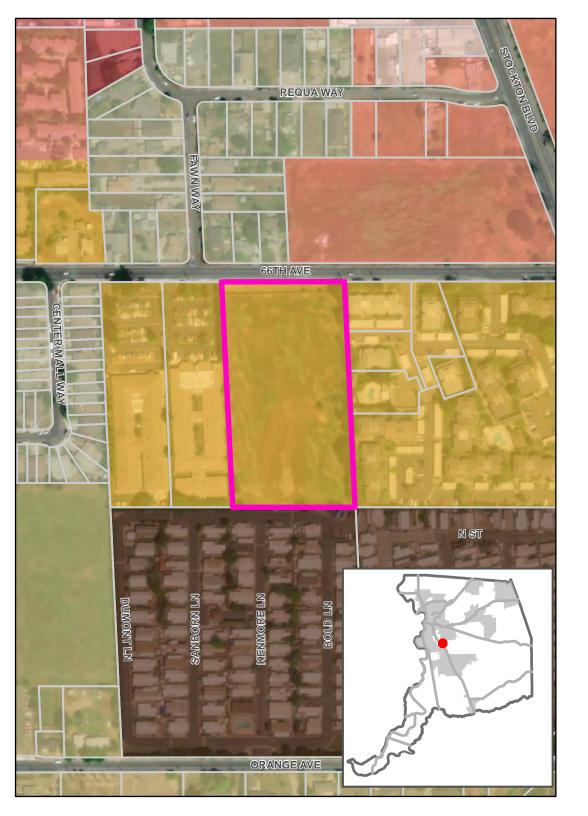




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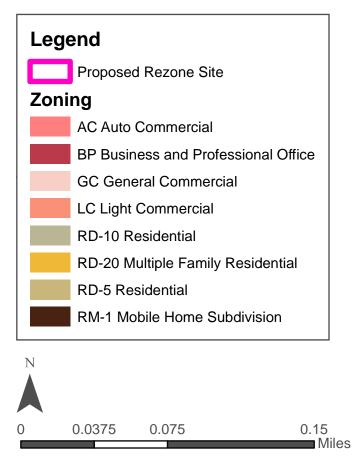
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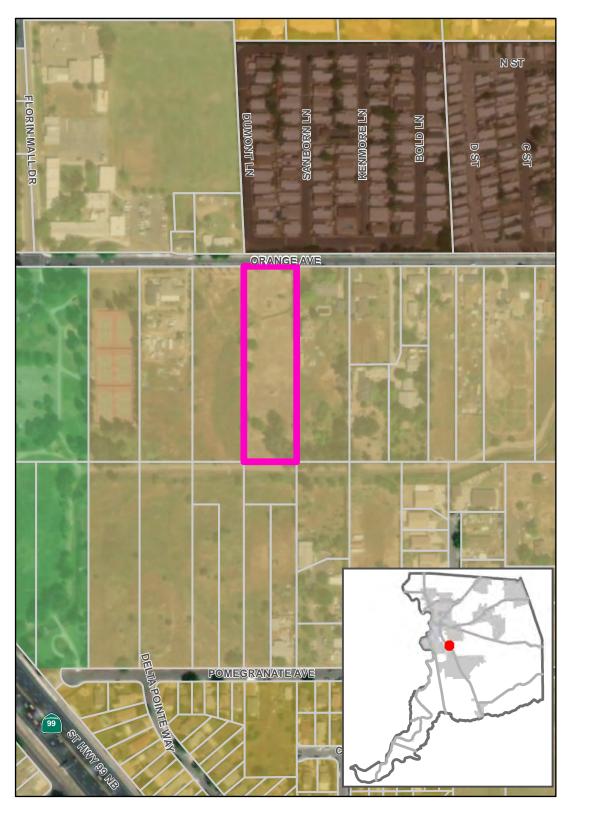




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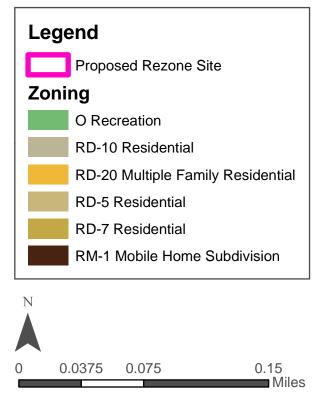
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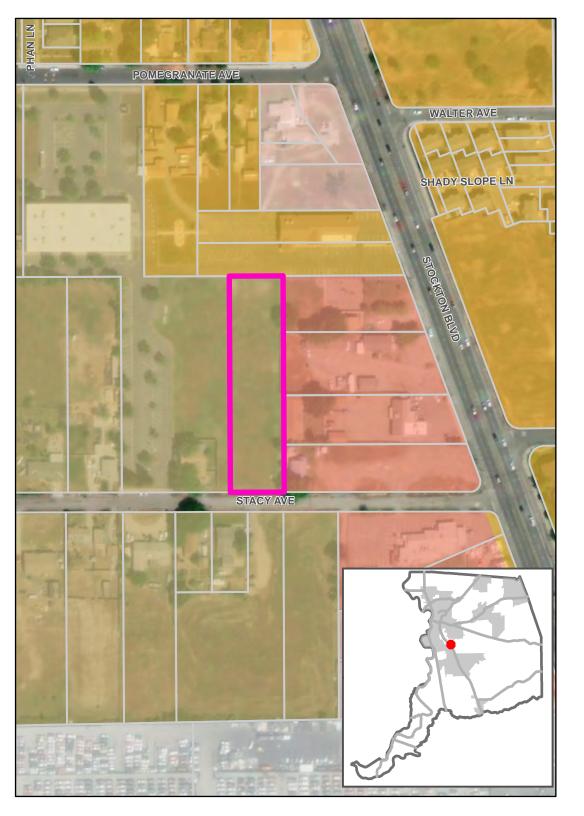




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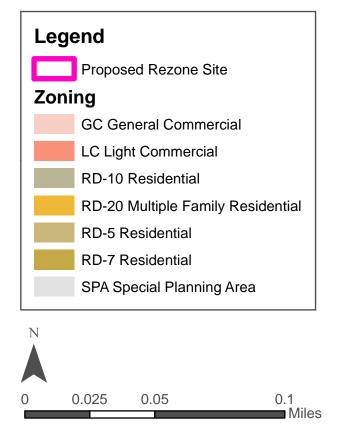
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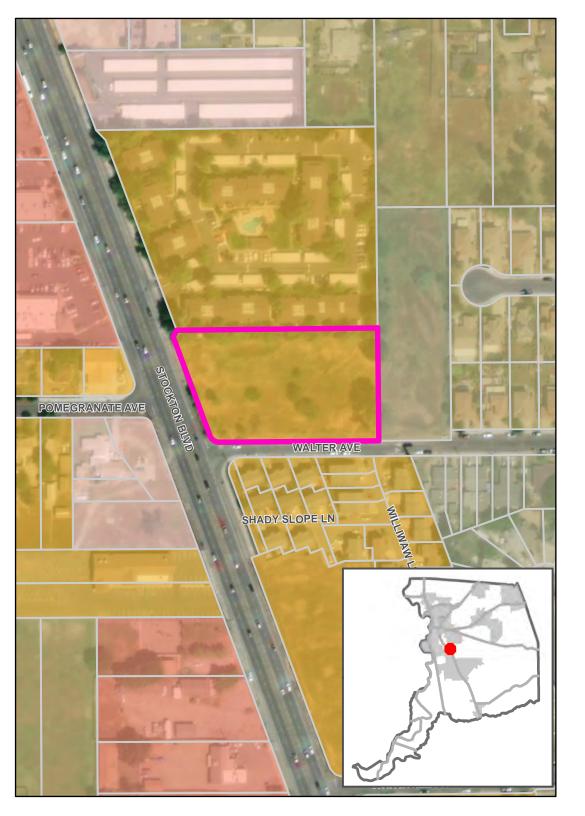




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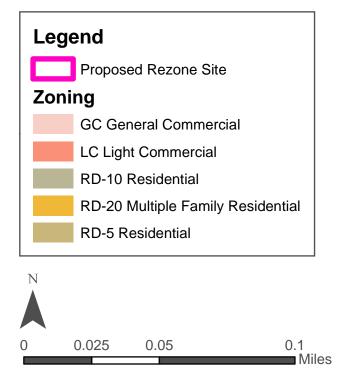
6707 Stacy Avenue, South Sacramento

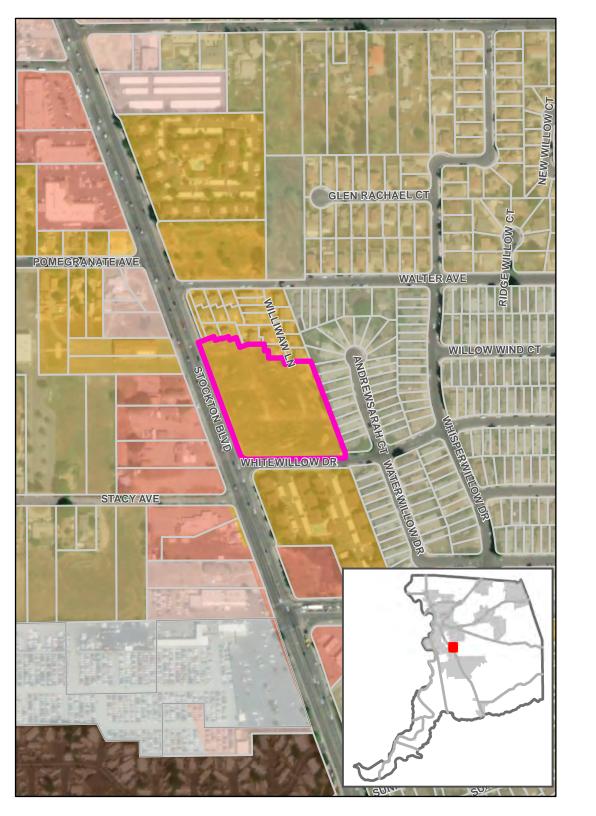




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Northeast Stockton Boulevard/Walter Avenue, South Sacramento

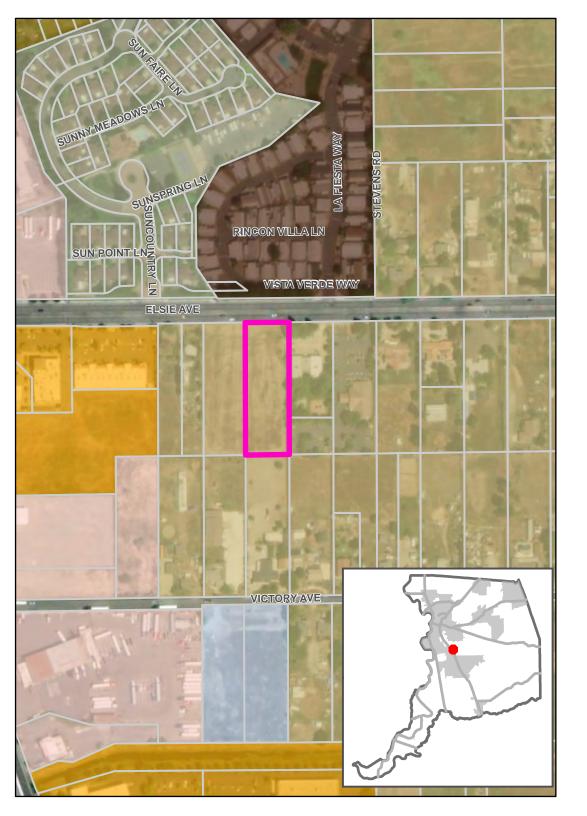




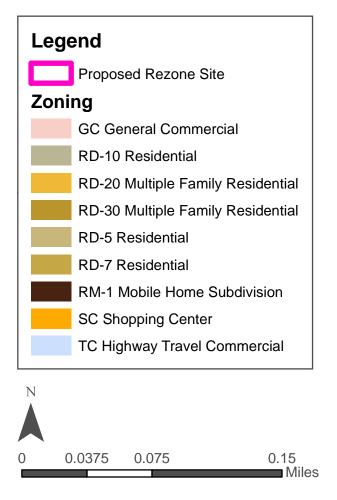
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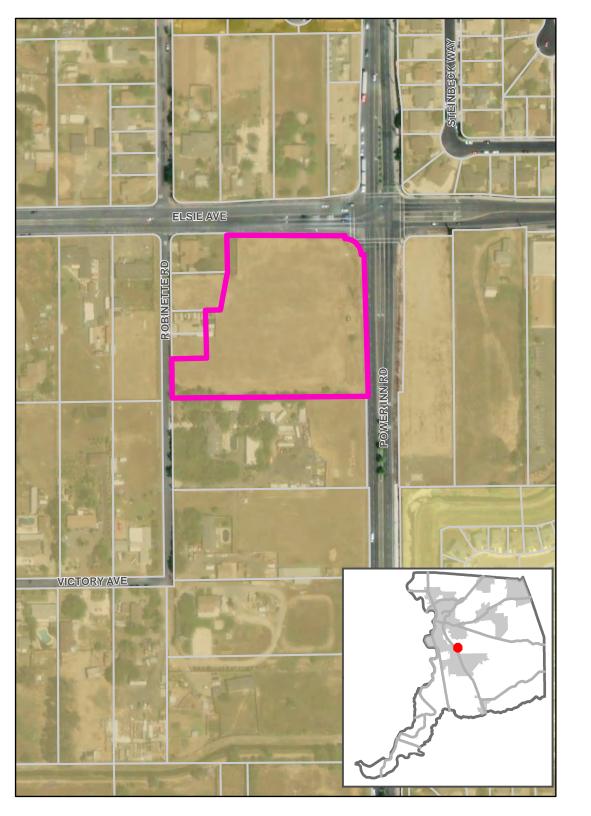
Northeast Stockton Boulevard/ Whitewillow Drive, South Sacramento





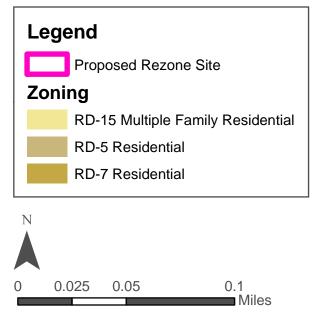
APN 115-0061-007-0000 7604 Elsie Avenue, South Sacramento

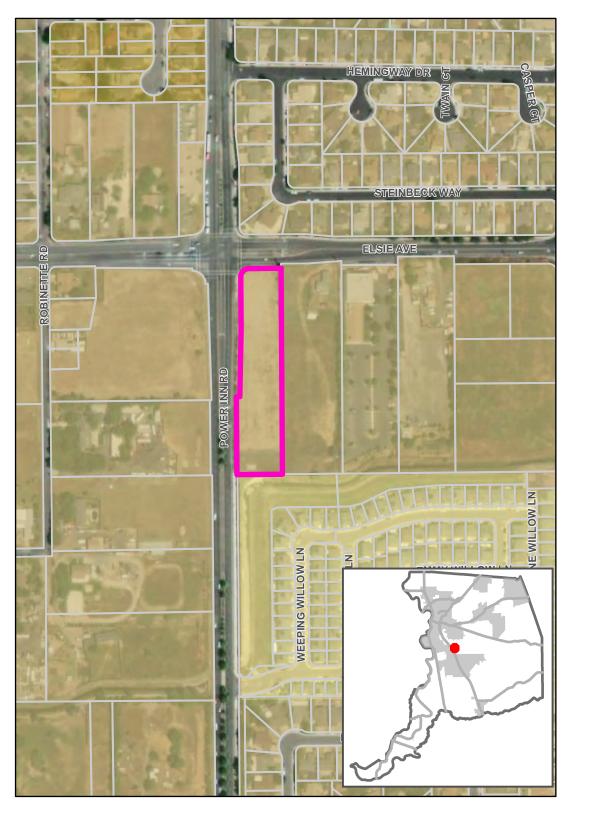




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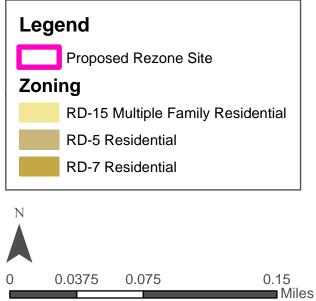
7825 Robinette Road, South Sacramento

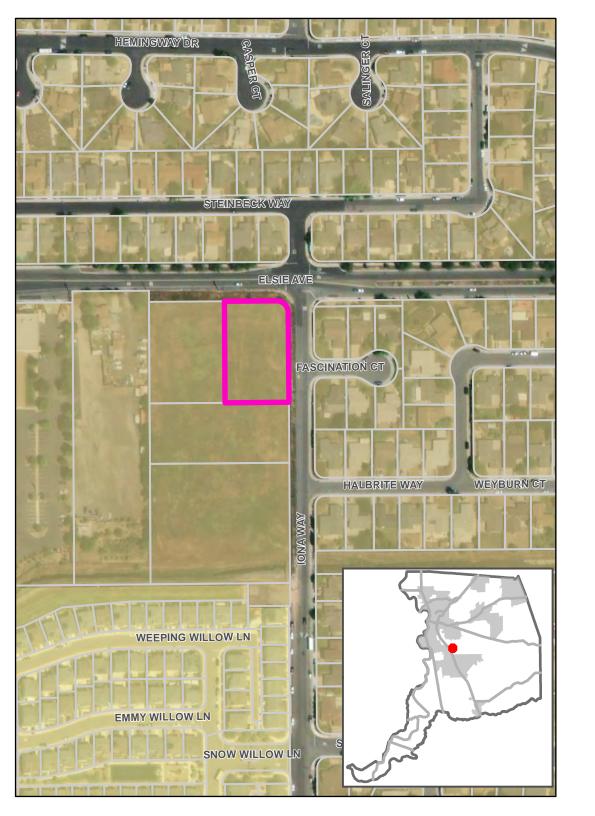




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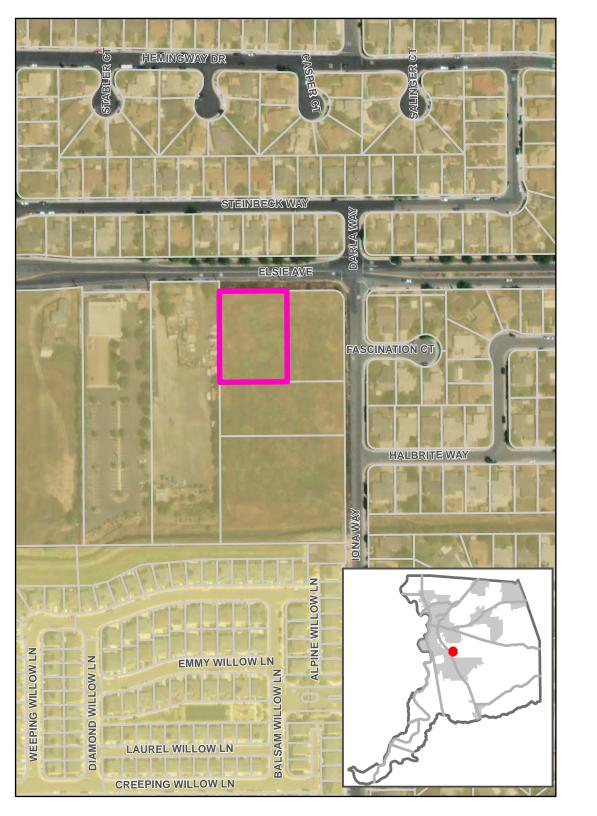
Southeast Elsie Avenue/Power Inn Road South Sacramento





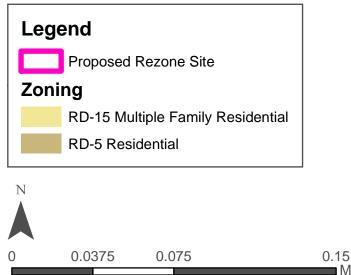
APN 115-0073-010-0000 Southwest Elsie Avenue/Iona Way South Sacramento

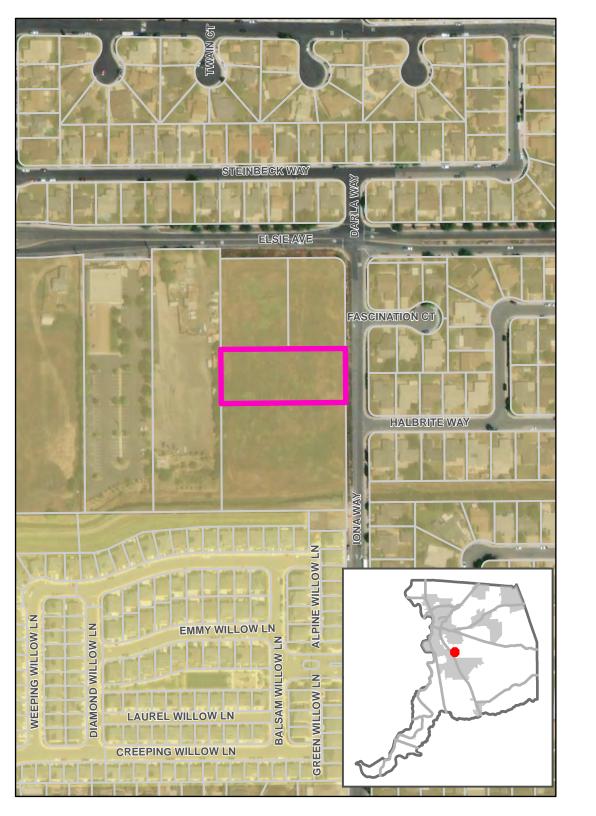




Miles

APN 115-0073-011-0000 140 feet West of Elsie Avenue/Iona Way, South Sacramento

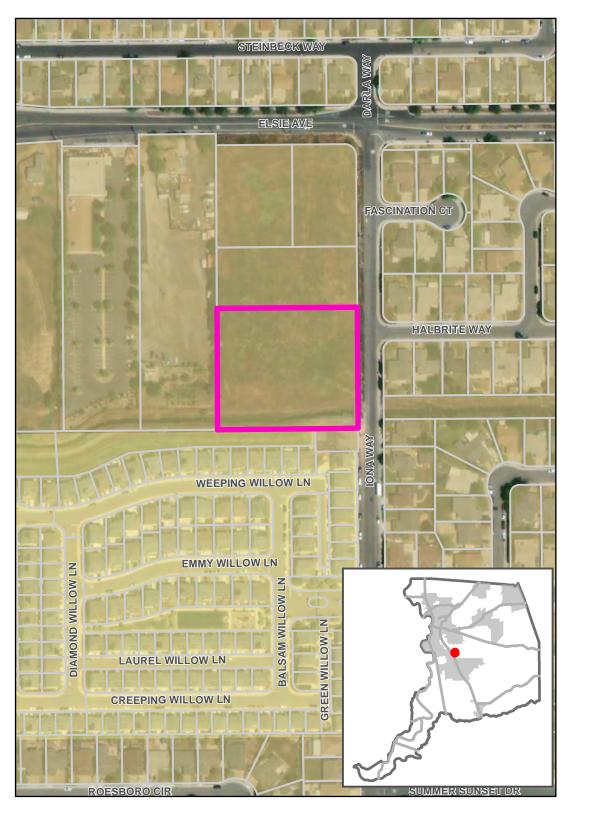




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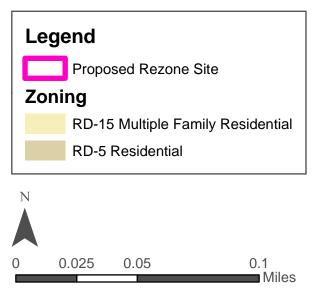
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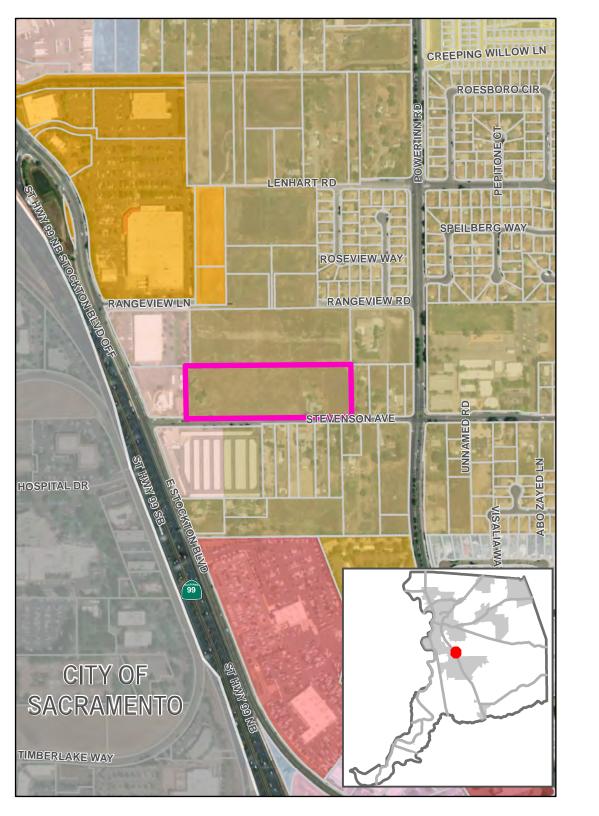




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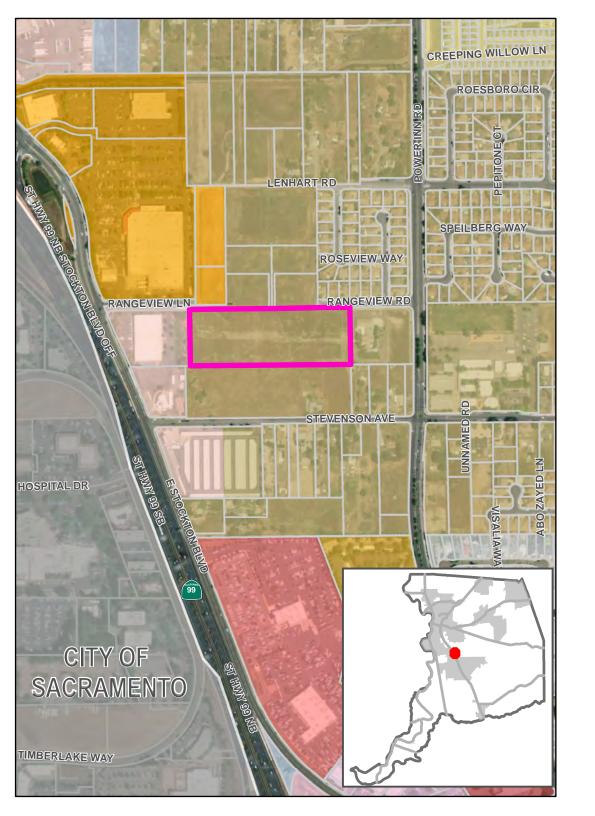
350 feet South of Elsie Avenue/Iona Way, South Sacramento





APN 115-0201-012-0000 7901 Stevenson Avenue, South Sacramento

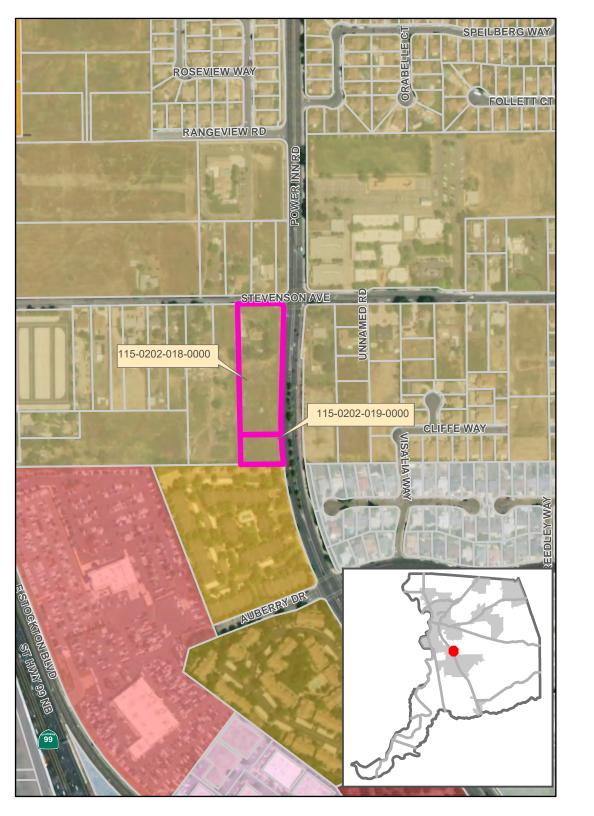




APN 115-0201-018-0000 7516 Rangeview Lane,

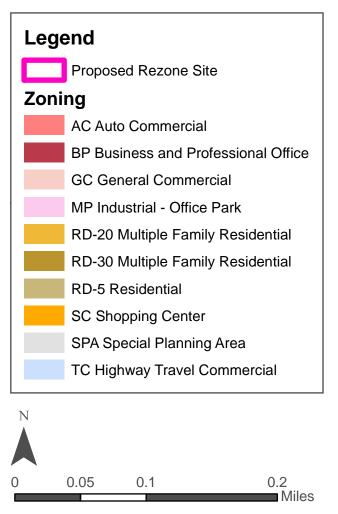
South Sacramento

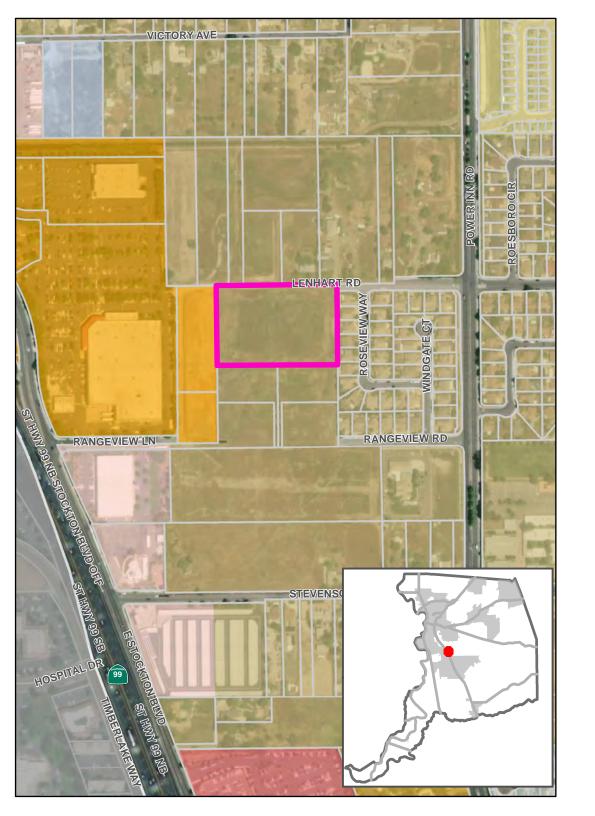




APNs 115-0202-018-0000 & 115-0202-019-0000

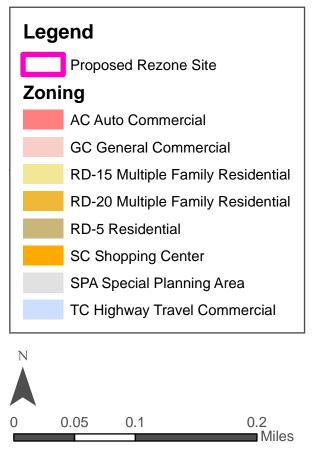
8016 Stevenson Avenue & 540 feet South of Stevenson Avenue/Power Inn Road, South Sacramento

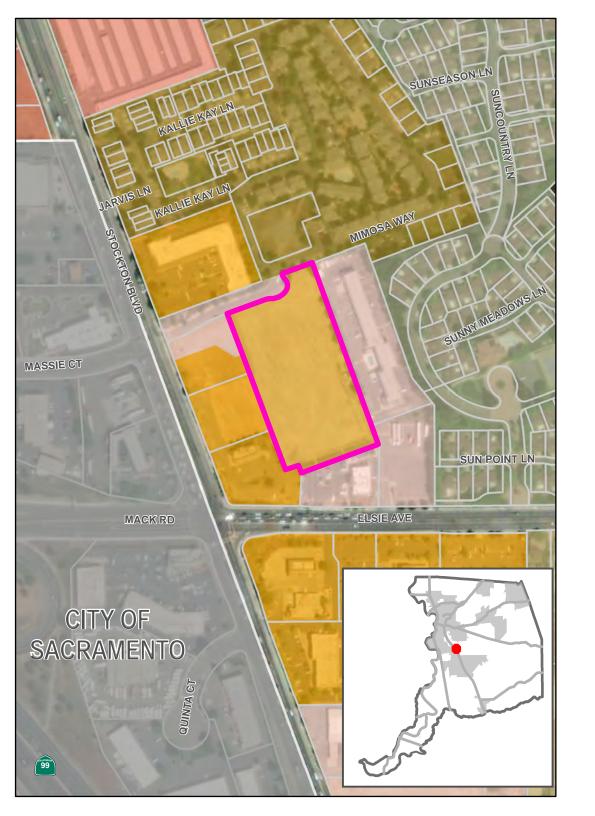




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540 feet West of Lenhart Road/ Power Inn Road, South Sacramento

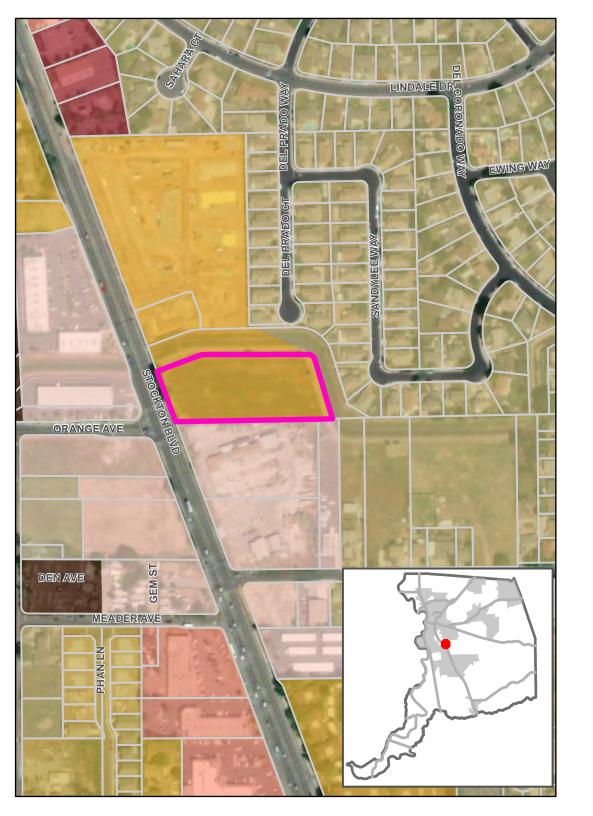




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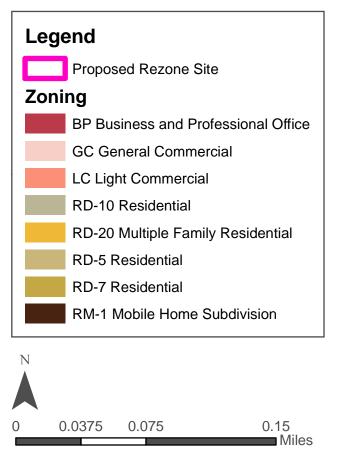
7333 Elsie Avenue, Sacramento

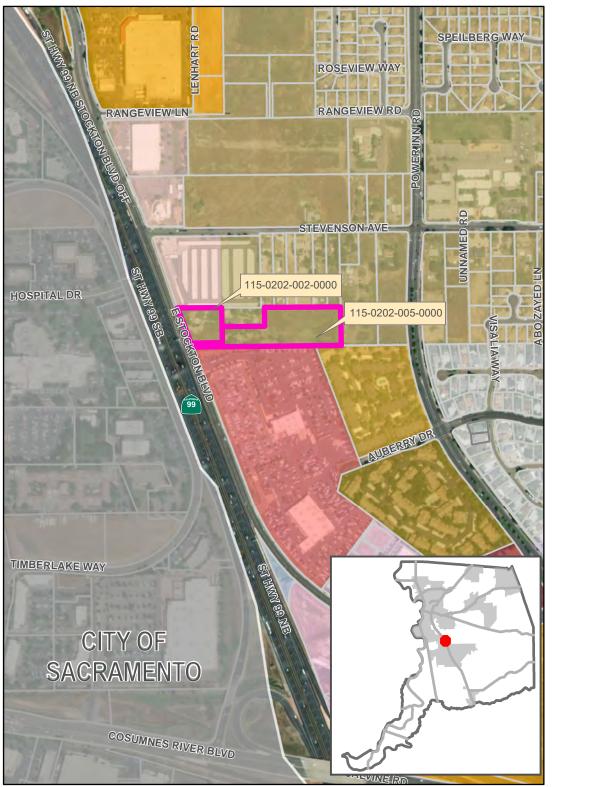




APN 051-0640-049-0000

Northeast Stockton Boulevard/ Orange Avenue, South Sacramento





APNs 115-0202-002-0000 & 115-0202-005-0000

8095 & 8099 E Stockton Boulevard, South Sacramento



California American Water

Water Supply Assessment for Sacramento County Regional Housing Needs Allocation Rezone Project

March 2024

I. Introduction

On December 29, 2023, the County of Sacramento submitted a letter to California American Water requesting a Water Supply Assessment (WSA) for the Sacramento County (County) Regional Housing Needs Allocation (RHNA) Rezone Project (Project). This WSA was prepared pursuant to the **California Water Code [Section 10910]**. California American Water's 2020 Urban Water Management Plan for the Sacramento Main Districts (2020 UWMP) did not include water demands for the Project; therefore, this assessment addresses the ability of California American Water to serve water to this Project.

II. Project Overview

The County has identified a shortfall of 2,884 housing units in the lower-income categories and therefore cannot accommodate the County's RHNA obligation for lower- and moderate- income housing. The Project provides capacity for future development of housing to meet the County's remaining unmet RHNA needs of 2,884 lower-income category units for the planning year of 2029. The County identified 33 rezone sites within California American Water's service areas. These service areas include Antelope, Fruitridge Vista, Lincoln Oaks, Parkway, and Suburban-Rosemont. Within these service areas, there will be a net increase of 2,105 units including 1,990 lower-income units and 115 moderate-income units. The number of additional units and associated demands in million gallons (MG) are shown in **Table 1**.

Service Area	Additional Units	Additional Demand (MG)
Antelope	203	10.8
Fruitridge Vista	89	23.8
Lincoln Oaks	290	6.2
Parkway	1,236	58.7
Suburban-Rosemont	278	3.4

Table 1: Additional Units and Demand

III. Water Demands [Section 10910(c)]

California American Water's 2020 UWMP for the Sacramento Main District did not include the proposed demands for the Project. There have been no significant changes or updates to demand projections for California American Water's Antelope, Fruitridge Vista, Lincoln Oaks, or Parkway service areas since the 2020 UWMP. Within the Suburban-Rosemont service area there, a WSA was completed earlier this year for the West Jackson Highway (WJH) Project, which is anticipated to add 996 million gallons (MG) of water demand. Historical demands from the past five years are presented in **Table 2**.

Service Area	2019	2020	2021	2022	2023			
Antelope	1,349	1,452	1,442	1,367	1,190			
Fruitridge Vista	1,026	964	990	979	928			
Lincoln Oaks	1,732	1,849	1,753	1,656	1,591			
Parkway	2,482	2,655	2,478	2,373	2,277			
Suburban-Rosemont	2,629	2,872	2,622	2,699	2,543			

Table 2: Historical Demands (MG)

Future demands were estimated by applying historical growth rates and include the demands for the WJH Project in Suburban-Rosemont as well as the projected demands for this Project. For the purpose of this WSA, the Project is projected to be in service by 2030. Projected demands are shown in **Table 3**.

Service Area	2025	2030	2035	2040	2045			
Antelope	1,421	1,469	1,507	1,547	1,565			
Fruitridge Vista	998	1,097	1,158	1,218	1,224			
Lincoln Oaks	1,830	1,878	1,921	1,966	1,981			
Parkway	2,526	2,595	2,606	2,660	2,723			
Suburban-Rosemont	2,727	3,027	3,325	3,623	3,923			

Table 3: Projected Demands (MG)

IV. Water Supply [Section 10910(d)]

A. Identification of Water Supply Entitlements [Section 10910(d)(1)]

California American Water's service areas are served primarily by groundwater wells. The wells in the Fruitridge Vista, Parkway, and Suburban-Rosemont service areas draw water from the South American Subbasin (SASb). The wells in the Antelope and Lincoln Oaks service areas draw water from the North American Subbasin (NASb). These basins are not adjudicated, therefore rights to the groundwater are based on the water rights of the property owner. As is the case with most municipal water providers, California American Water delivers water to parcels that it does not own. This is considered an appropriative use of groundwater. There is no permitting required for the use of groundwater in this case; however, the use of groundwater is limited to what is used by the overlying property owners.

California American Water has an agreement with the City of Sacramento to purchase water. In 2010, CAW revised an existing wholesale supply agreement with the City to receive a maximum of 3.46 million gallons per day (MGD) of non-firm supply during off-peak periods (October 15th through May 14th), plus an additional 2.3 MGD of firm capacity, for a total of 5.76 MGD. Because the non-firm capacity of 3.46 MGD can only be used during seven months of the year, the total yearly amount available is calculated to be 1,576 MG. However, in a dry year or multiple dry years, it is assumed that only the firm supply would be available. Additionally, this agreement includes three of California American Water's service areas, Arden, Parkway, and Suburban-Rosemont, so it is assumed that this firm supply would be available to each of these service areas proportional to their respective demands. For the Suburban-Rosemont service area, this equates to 403 MG, and for the Parkway service area, this equates to 378 MG. California American Water has an additional agreement with the City of Sacramento to purchase water for the Fruitridge Vista service area in the amount of 3.24 MGD. The is considered a guaranteed supply source, so it is assumed to be available in normal and dry years.

California American Water has a take or pay agreement with Sacramento Suburban Water District (SSWD) to purchase up to 652 MG per year of water for its Antelope and Lincoln Oaks service areas. This is not a guaranteed supply source, so it is considered unavailable in dry years.

Total firm supply availability is summarized in **Table 4** for a normal year, a dry year, and multiple dry years. Firm well supply is calculated as the total well supply with the largest well out of service.

Year		Capacity (MG)						
Туре	Source	Antelope	Fruitridge Vista	Lincoln Oaks	Parkway	Suburban- Rosemont		
	Groundwater Wells	6,776	3,637	7,827	7,446	9,279		
Normal Years	Purchased Water	652	1,183	652	1,576	1,576		
Tears	Total	7,428	4,820	8,479	9,022	10,855		
Circola	Groundwater Wells	6,776	3,637	7,827	7,446	9,279		
Single Dry Year	Purchased Water	0	1,183	0	378	403		
Dry real	Total	6,776	4,820	7,827	7,824	9,682		
Multiple	Groundwater Wells	6,776	3,637	7,827	7,446	9,279		
Dry	Purchased Water	0	1,183	0	378	403		
Years	Total	6,776	4,820	7,827	7,824	9,682		

Table 4: Supply by Year Type

B. Demonstration of Water Supply [Section 10910(d)(2)]

Section 10910(d)(2)(A), contracts or proof of entitlements: The agreements between California American Water and the City of Sacramento and SSWD for purchased water are documented in the 2020 UWMPs for California American Water, City of Sacramento, and SSWD, which can be found on the Department of Water Resources website at wuedata.water.ca.gov.

California American Water has appropriative rights to the groundwater extracted from groundwater wells.

Section 10910(d)(2)(B), capital outlay program: California American Water's Capital Improvement Program (CIP) must be approved by the California Public Utilities Commission (CPUC). The current approved CIP from the 2019 General Rate Case (GRC) can be found on the CPUC website at cpuc.ca.gov, Decision D.21-11-018, Appendix B, Attachment C-4. California American Water is currently awaiting a CPUC decision for its latest GRC filed in 2022, which contains an updated CIP.

Section 10910(d)(2)(C), permits for construction of infrastructure: The Project will connect to existing California American Water infrastructure. Although no off-site infrastructure is anticipated to be needed, Project owners would be responsible for providing any infrastructure needed to convey water to the Project, including obtaining any permits for construction.

Section 10910(d)(2)(D), regulatory approvals: The Project is located within California American Water's existing service area, therefore no regulatory approvals are required in order to convey water to the Project.

V. Supply and Demand Assessment [Section 10910(c)(3)]

California American Water has sufficient supply to meet projected demands in normal, dry, and multiple dry years through 2045, as shown in **Tables 5.1 through 5.5**. However, it should be noted that the groundwater wells are aging, and as they age, they tend to lose production capacity and are at risk of failure. California American Water has a well replacement plan in place that prioritizes replacement of wells that are at high risk of failure, whether it be due to age or other factors. This analysis assumes that

these wells are replaced when needed to replace diminished capacity or avoid failure and that replacement wells are of similar production capacity.

Year Type	Source	2025	2030	2035	2040	2045
	Supply	7,428	7,428	7,428	7,428	7,428
Normal Years	Demand	1,421	1,469	1,507	1,547	1,565
	Surplus/Deficit	6,007	5,959	5,921	5,881	5,863
	Supply	6,776	6,776	6,776	6,776	6,776
Single Dry Year	Demand	1,421	1,469	1,507	1,547	1,565
	Surplus/Deficit	5,355	5,307	5,269	5,229	5,211
Multiple Dry Years	Supply	6,776	6,776	6,776	6,776	6,776
	Demand	1,421	1,469	1,507	1,547	1,565
	Surplus/Deficit	5,355	5,307	5,269	5,229	5,211

Table 5.1: Supply and Demand (MG) – Antelope

Table 5.2: Supply and Demand (MG) – Fruitridge Vista

Year Type	Source	2025	2030	2035	2040	2045
	Supply	4,820	4,820	4,820	4,820	4,820
Normal Years	Demand	998	1,097	1,158	1,218	1,224
	Surplus/Deficit	3,822	3,723	3,662	3,602	3,596
	Supply	4,820	4,820	4,820	4,820	4,820
Single Dry Year	Demand	998	1,097	1,158	1,218	1,224
	Surplus/Deficit	3,822	3,723	3,662	3,602	3,596
	Supply	4,820	4,820	4,820	4,820	4,820
Multiple Dry Years	Demand	998	1,097	1,158	1,218	1,224
	Surplus/Deficit	3,822	3,723	3,662	3,602	3,596

Table 5.3: Supply and Demand (MG) – Lincoln Oaks

Year Type	Source	2025	2030	2035	2040	2045
	Supply	8,479	8,479	8,479	8,479	8,479
Normal Years	Demand	1,830	1,878	1,921	1,966	1,981
	Surplus/Deficit	6,649	6,601	6,558	6,513	6,498
	Supply	7,827	7,827	7,827	7,827	7,827
Single Dry Year	Demand	1,830	1,878	1,921	1,966	1,981
	Surplus/Deficit	5,997	5,949	5 <i>,</i> 906	5,861	5,846
Multiple Dry Years	Supply	7,827	7,827	7,827	7,827	7,827
	Demand	1,830	1,878	1,921	1,966	1,981
	Surplus/Deficit	5,997	5,949	5,906	5,861	5,846

Year Type	Source	2025	2030	2035	2040	2045
	Supply	9,022	9,022	9,022	9,022	9,022
Normal Years	Demand	2,526	2,595	2,606	2,660	2,723
	Surplus/Deficit	6,496	6,427	6,416	6,362	6,298
	Supply	7,824	7,824	7,824	7,824	7,824
Single Dry Year	Demand	2,526	2,595	2,606	2,660	2,723
	Surplus/Deficit	5,298	5,229	5,218	5,164	5,100
	Supply	7,824	7,824	7,824	7,824	7,824
Multiple Dry Years	Demand	2,526	2,595	2,606	2,660	2,723
	Surplus/Deficit	5,298	5,229	5,218	5,164	5,100

Table 5.4: Supply and Demand (MG) – Parkway

Table 5.5: Supply and Demand (MG) – Suburban-Rosemont

Year Type	Source	2025	2030	2035	2040	2045
	Supply	10,855	10,855	10,855	10,855	10,855
Normal Years	Demand	2,727	3,027	3,325	3,623	3,923
	Surplus/Deficit	8,128	7,828	7,530	7,232	6,932
	Supply	9,682	9,682	9,682	9,682	9,682
Single Dry Year	Demand	2,727	3,027	3,325	3,623	3,923
	Surplus/Deficit	6,955	6,655	6,357	6,059	5,759
Multiple Dry Years	Supply	9,682	9,682	9,682	9,682	9,682
	Demand	2,727	3,027	3,325	3,623	3,923
	Surplus/Deficit	6,955	6,655	6,357	6,059	5,759

VI. Groundwater Withdrawals [Section 10910(f)]

Section 10910(f)(1), groundwater information in the UWMP: California American Water's 2020 UWMP identified the SASb as the source of groundwater for its Fruitridge Vista, Parkway, and Suburban-Rosemont service areas. These service areas have a combined well production capacity of approximately 43,700 gallons per minute (gpm) from 55 groundwater wells, which equates to approximately 22,600 MG per year. The firm capacity of these wells, or the capacity with the largest well out of service, is approximately 39,500 gpm, or 20,400 MG. These well capacities were updated from the 2020 UWMP with more recent well pump efficiency tests.

California American Water's 2020 UWMP identified the NASb as the source of groundwater for its Antelope and Lincoln Oaks service areas. These service areas have a combined well production capacity of approximately 30,600 gallons per minute (gpm) from 41 groundwater wells, which equates to approximately 16,100 MG per year. The firm capacity of these wells is approximately 27,800 gpm, or 14,600 MG. These well capacities were updated from the 2020 UWMP with more recent well pump efficiency tests.

Section 10910(f)(2)(A), description of groundwater basin: The SASb is a high priority subbasin surrounded by the American, Cosumnes, Mokelumne, and Sacramento Rivers to the north, south and west, and the foothills of the Sierra Nevada to the east. The SASb is comprised of two aquifers; the upper and lower aquifers are described as follows in the Sacramento Central Groundwater Authority Alternative Submittal:

"The upper fresh-water aquifer is wedge-shaped along the eastern side of the basin (dipping and thickening westward) but is relatively flat-lying on the western side. The thickness can vary up to approximately 300 feet, but is typically 200 feet, and the bottom can extend to an elevation of approximately 200 feet below mean sea level. The upper aquifer is generally correlative to the Laguna Formation and other similar/younger sediments.

The lower fresh-water aquifer is similar in shape to the upper aquifer, but considerably larger. The wedge portion of the lower aquifer, on the eastern side of the basin, rests on bedrock (relatively impermeable) and can extend to depths between 800 and 1,200 feet below mean sea level. Within the center and western portions of the basin, the base of the lower aquifer extends to depths between 1,200 and 2,000 feet below mean sea level, to the top of the unusable water. This unusable water may occur at depths of 800 feet below mean sea level beneath the Delta area of the South American Subbasin. The lower aquifer is generally correlative to the Mehrten Formation and pre-Mehrten sediments.

The Laguna and Mehrten Formations were deposited during the Pliocene and Miocene Epochs, respectively, (Gutierrez, 2011) of the Tertiary or Neogene Period (2.6 to 23.0 million years ago) in a fluvial environment (DWR, 1974). These formations are comprised of interbedded layers of gravel, sand, silt, and clay with numerous channel deposits within the South American Subbasin. The deposits are wedge-shaped and dip gently and thicken in a westerly direction. The Laguna Formation is derived from granitic and metamorphic rocks while the Mehrten Formation is derived from andesitic rock. The Mehrten Formation also includes dense, hard layers of tuff-breccia."

"The cones-of-depressions...were developed during the middle of the last century as groundwater was pumped extensively for agricultural land uses, and were known to not be in a state of equilibrium (i.e., groundwater levels still falling) in the mid 1980's. The majority of the subbasin's recharge occurs from the percolation of rainfall and irrigation water and from the rivers that bound three sides of the subbasin, including the Delta."

The NASb is a high priority basin that covers approximately 342,000 acres in Sutter, Placer, and Sacramento Counties bounded by the American, Bear, Feather, and Sacramento Rivers. Different portions of the subbasin are managed by different agencies. California American Water's service areas are managed by the Sacramento Groundwater Authority (SGA), which manages the groundwater resources in the area north of the America River within Sacramento County. The following is a description of the NASb from the 2021 Groundwater Sustainability Plan (GSP):

"The NASb is in the Sacramento Valley and is filled largely with sediments derived from the adjacent Sierra Nevada foothills, which contain fresh water. In general, these fresh-water bearing sediments beneath the NASb are thinnest to the east and thicken up to 2,000 feet to the west. The sediments consist of alternating layers of clays, silts, sand and gravel. The sand and gravels layers into which wells are constructed are referred to as aquifers. These sand and gravel layers were deposited by meandering rivers and creeks, so they are not continuous across the entire Subbasin. Although the sediments are not present as continuous layers, they are interconnected. This was demonstrated by observing that groundwater levels in the various sand and gravel layers have similar levels and trends. Based on this information, the NASb is interpreted as having one principal aquifer.

Groundwater is recharged from throughout the surface of the Subbasin and from groundwater inflow from adjacent subbasins. No geologic sediments are impermeable, so some recharge occurs in all areas that are not covered by impermeable surfaces (such as asphalt or concrete). This is particularly important in agricultural areas where, even though there are low permeability soils, there are more than one hundred thousand acres of land that have applied or ponded water throughout the growing season, which results in large volumes of recharge to the Subbasin."

"Groundwater levels in the western portion of the Subbasin are generally stable through time dating back to early in the 20th century. Groundwater levels in the central part of the Subbasin showed long-term declines in the north-central portion until the mid-1960s and in the southcentral portion until the mid-1990s, when conjunctive use programs arrested these declines and allowed groundwater levels to begin to recover. Groundwater levels in the eastern portion of the subbasin have been generally stable since the 1970s, but they do show declines during dry periods with recovery during wet periods.

The groundwater contours show a pumping depression in the center of the Subbasin that is currently about 30 feet below mean sea level. Groundwater flows radially toward this depression, from the fringes of the Subbasin toward the center. The depression has been stabilized, with groundwater levels generally declining during dry periods and recovering during wet periods.

Limited land subsidence due to groundwater pumping was documented up to the early 1990s, but there were no documented impacts associated with the subsidence. Since then, the subsidence has been negligible."

Section 10910(f)(2)(C), GSP: California enacted the Sustainable Groundwater Management Act in 2014 and this requires that the state's high and medium priority groundwater basins develop a GSP to balance pumping and recharge to the basin. To accomplish this, six Groundwater Sustainability Agencies (GSAs) were formed to develop one GSP for the SASb. The GSP was finalized in 2022 and can be found on the SASb website at sasbgroundwater.org. The key finding of the GSP is that the basin will be sustainable over the next twenty years as long as planned recycled water, recharge, and other projects are implemented. The SGA completed a Groundwater Sustainability Plan for NASb in 2021 and can be found on the SGA website as sgah2o.org. The key finding of this GSP is that while there is currently a surplus of water, there is a potential future deficit of 3,500 AFY, which can be offset through a conjunctive use project.

Section 10910(f)(3), description and analysis of the amount of groundwater pumped: Actual groundwater withdrawals for the past five years are shown in **Table 6**.

Service Area	2019	2020	2021	2022	2023				
North American Subbasin									
Antelope	1,152	1,432	1,442	1,367	938				
Lincoln Oaks	1,446	1,820	1,751	1,656	1,310				
Total	2,598	3,252	3,193	3,023	2,248				
	Sout	h American Sub	basin						
Fruitridge Vista	0	399	646	877	869				
Parkway	2,184	2,081	2,172	2,249	2,069				
Suburban-Rosemont	2,466	2,531	2,622	2,590	2,380				
Total	4,650	5,011	5,440	5,716	5,318				

Table 6: Historical Groundwater Withdrawals (MG)

VII. Conclusion of Sufficiency

In conclusion, California American Water has sufficient supply for future demands, including the Sacramento County RHNA Rezone Project, through 2045. This includes normal years, dry years, and multiple dry years.