

To SACOG

From Steer

Date May 1, 2025

Project **Mobility Zones**

Memo

Mobility Zone Identification Methodology

Equity Priority Communities

EPC Methodology Overview

The purpose of developing EPCs is to identify communities that have historically been most marginalized and underserved by transportation projects. EPCs serve as a starting point for identifying Mobility Zones across the SACOG region. The EPC methodology is driven by demographic characteristics within communities. Once EPCs have been established, broader mobility concerns such as barriers to access and quality of life will be considered alongside EPCs to identify Mobility Zones.

The EPC methodology aims to assess community needs uniformly across the SACOG region while providing counties with the flexibility to tailor their equity priorities to their local context. To achieve this flexibility, input from the project's Community Committees and a regional public survey were used to assign unique weights to the Equity criteria for each county. The results of the weighted evaluation were shared with Community Committees in October 2024 and the Mobility Zones Task Force approved the results at their November 2024 meeting. The SACOG Board will take an action to approve the EPCs in December 2024.

EPC Criteria

The Mobility Zones evaluation framework includes ten criteria under the Equity goal, shown in Table 1. These criteria were developed and refined through an iterative process based on research and best practice, Committee input, and data availability. Table 1 also shows how each criterion was measured, and the data source used to conduct the evaluation.

Table 1 Equity Criteria

Criterion	Measurement	Data Source	Geography
Race and Ethnicity	% Non-white and/or Latino	ACS 2018–2022 5-year	Block Group
Low-Income	% of HHs with income below 200% of the Federal poverty level	ACS 2018–2022 5-year	Block Group
Cost Burden	CNT Housing + Transportation Index (0-100)	CNT H+T index (https://htaindex.cnt.org/)	Census Tract

Pollution Burdens	CalEnviroScreen percentile (0-100)	CalEnviroScreen 4.0 (https://oehha.ca.gov/calenviroscreen)	Census Tract
Youth	% Youth (17 and younger)	ACS 2018–2022 5-year	Block Group
Older Adults	% Older Adults (65 and older)	ACS 2018–2022 5-year	Block Group
People with Disabilities	% of People with a Disability	ACS 2018–2022 5-year	Block Group
Linguistic Isolation	% of HHs with Limited English Proficiency	ACS 2018–2022 5-year	Block Group
Lower Educational Attainment	% of Adults with no High-School Diploma	ACS 2018–2022 5-year	Block Group
Tribal Areas	Tribal area	Tribal land reservation boundaries	Tribal Input

EPC Identification Process

The section presents the detailed technical methodology used to identify EPCs, starting with a summary of the seven steps involved and additional detail on each step to follow:

- **Step 1: Calculate each criterion:** Compile and clean data, calculate each criterion, and summarize all criteria at the block group level.
- **Step 2: Standardize criteria:** Values for all criteria across all block groups are standardized (on a scale of 0 to 100) to account for varying units of measurement. This step is critical for enabling cross-criteria comparison and assigning weights in following steps.
- **Step 3: Assign criteria weights:** Each county assigns a total of 100 points between Race/Ethnicity and Income, and 100 points across seven other criteria.
- **Step 4: Score block groups:** Sum all weighted criteria to obtain a score for each block group across the SACOG region. This score is then normalized on a scale of 0-100.
- **Step 5: Identify home-based EPCs:** For each county, select the highest scoring block groups until 20 percent of the county's population is represented by EPCs.
- **Step 6: Identify destination-based EPCs:** Use Replica to identify destinations throughout the SACOG region where EPCs are traveling to.
- **Step 7: Draft EPCs:** Combine home-based and destination-based EPCs.

Step 1: Calculate Each Criterion

This section provides the data source, geography, and formula used to calculate each of the Equity criteria.

Race & Ethnicity

Measurement: % Non-white and/or Latino

Data Source: ACS 2018-2022 5 year

Geography: Block Group

Formula: [$\text{*Total Population*} - (\text{*Total Population: Not Hispanic Or Latino*} - \text{SUM}(\text{*Total Population: Not Hispanic Black Or African American Alone*}, \text{*Total Population: Not Hispanic American Indian Or Alaska Native Alone*}, \text{*Total Population: Not Hispanic Asian Alone*}, \text{*Total Population: Not Hispanic Native Hawaiian Or Pacific Islander Alone*}, \text{*Total Population: Not Hispanic Some Other Race Alone*}, \text{*Total Population: Not Hispanic Two Or More Races Alone*})) / \text{*Total Population*}$]

Low-Income

Measurement: % of HHs with income below 200% of the Federal poverty level

Data Source: ACS 2018-2022 5 year

Geography: Block Group

Formula: sum of all estimate columns with the number of households whose income is between “under 0.50” and “1.85 to 1.99” percent of the federal poverty level.

Cost Burden

Measurement: Indexed valued of housing + transportation cost burden (0-100)

Data Source: Center for Neighborhood Technology

CNT Housing + Transportation (H+T) Index includes both the cost of housing and the cost of transportation at the neighborhood level. The (H+T) Index measures the true affordability of living in an area by combining housing and transportation costs. It helps to understand how much of a household's income is spent on these essential expenses, providing a clearer picture of cost of living Methodology: <https://htaindex.cnt.org/about/method-2022.pdf>

Geography: Census Tract

Formula: n/a

Pollution Burden

Measurement: CalEnviroScreen percentile

Data Source: CalEnviroScreen 4.0

- CalEnviroScreen is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution.
- The score in the data represents the percentile of the given census tract
- Source website: CalEnviroScreen 4.0 | OEHHA

Geography: Census Tract

Formula: n/a

Youth

Measurement: % Youth (17 and younger)

Data Source: ACS 2018–2022 5-year

Geography: Block Group

Formula: $\text{sum}(*\text{Total Population: Males Under 5 Years}*, *\text{Total Population: Males Aged 5-9 Years}*, *\text{Total Population: Males Aged 10-14 Years}*, *\text{Total Population: Males Aged 15-17 Years}*, *\text{Total Population: Females Aged Under 5 Years}*, *\text{Total Population: Females Aged 5-10 Years}*, *\text{Total Population: Females Aged 10-14 Years}*, *\text{Total Population: Females Aged 15-17 Years}*)/*\text{Total Population}*$

Older Adults

Measurement: % Older Adults (65 and older)

Data Source: ACS 2018–2022 5-year

Geography: Block Group

Formula: $\text{sum}(*\text{Total Population: Males Aged 65-66 Years}*, *\text{Total Population: Males Aged 67-69 Years}*, *\text{Total Population: Males Aged 70-74 Years}*, *\text{Total Population: Males Aged 75-79 Years}*, *\text{Total Population: Males Aged 80-84 Years}*, *\text{Total Population: Males Aged 85 Years And Over}*, *\text{Total Population: Females Aged 65-66 Years}*, *\text{Total Population: Females Aged 67-69 Years}*, *\text{Total Population: Females Aged 70-74 Years}*, *\text{Total Population: Females Aged 75-79 Years}*, *\text{Total Population: Females Aged 80-84 Years}*, *\text{Total Population: Females Aged 85 Years And Over}*)/*\text{Total Population}*$

People with Disabilities

Measurement: % of People with a Disability

Data Source: ACS 2018–2022 5-year

Geography: Block Group

Formula: $\text{sum}(*\text{Total: Males Aged 18 To 34 Years With A Disability}*, *\text{Total: Males Aged 35 To 64 Years With A Disability}*, *\text{Total: Males Aged 65 To 74 Years With A Disability}*, *\text{Total: Males Aged 75 Years And Over With A Disability}*, *\text{Total: Females Aged 18 To 34 Years With A Disability}*, *\text{Total: Females Aged 35 To 64 Years With A Disability}*, *\text{Total: Females Aged 65 To 74 Years With A Disability}*, *\text{Total: Females Aged 75 Years And Over With A Disability}*)/*\text{Total Population}*$

Linguistic Isolation

Measurement: % of HHs with Limited English Proficiency

Data Source: ACS 2018–2022 5-year

Geography: Block Group

Formula: $\text{sum}(*\text{Total Limited Speaking English Household: Spanish}*, *\text{Total Limited Speaking English Household: Other Indo-European Languages}*, *\text{Total Limited Speaking English Household: Asian and Pacific Island Languages}*, *\text{Total Limited Speaking English Household: Other Languages}*)/*\text{Total Households}*$

Lower Educational Attainment

Measurement: % of Adults with no High-School Diploma

Data Source: ACS 2018–2022 5-year

Geography: Block Group

Formula: $\text{sum}(*\text{Less than 9th grade}*, *\text{9th to 12th grade, no diploma}*)/*\text{Total Population: 25 years and over}*$

Tribal Areas

Tribal community representatives provided geographic guidance on Tribal Areas throughout the SACOG region

Step 2: Standardize Criteria

Standardizing each criterion is required to enable a fair comparison and compilation of metrics with different units. For example, Race & Ethnicity is measured as the percent of the population in each block group who identify as communities of color, whereas Pollution Burden is measured as an index developed by CalEnviroScreen. The standardization process assigns a value of 100 to the highest scoring block group, regardless of units, and a score of 0 to the lowest scoring block group. For the Mobility Zones project, standardization was applied at the county level. The block groups in each county are treated as distinct sets of data to which the standardization methodology is applied. The standardization formula is as follows:

$$BG_S = (BG_N - \text{MIN}(\text{range})) / (\text{MAX}(\text{range}) - \text{MIN}(\text{range}))$$

Where:

BG_S = Standardized block group value

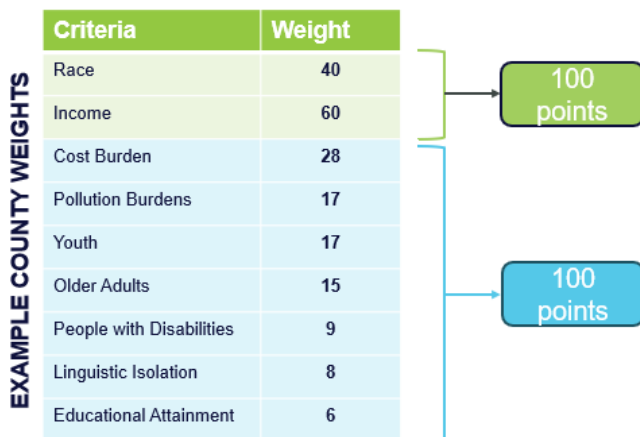
BG_N = Non-standardized block group value

range = All block groups in the county

Step 3: Assign Criteria Weights

The EPC methodology allots each County a total of 200 points to assign to the nine Equity criteria. To align with policy guidance and region-wide priorities, Race & Ethnicity and Low-Income criteria are allotted a combined total of 100 points, and the remaining seven criteria are allotted a combined total of 100 points (Figure 3). Community Committee input and public survey responses were used to inform weighting at the County level. These results are shown in the Tables 2 - 4.

Figure 1 Example County Criteria Weighting



Each committee member voted on the allocation of points across criteria. Municipal and technical committees include representatives from across the SACOG region. Their input was used to validate the county-level weighting results.

Table 2 Community Committee Weighting Results

County	Cost Burden	People with Disabilities	Older Adults	Educational Attainment	Linguistic Isolation	Youth	Pollution Burden	Income	Race & Ethnicity
Sacramento	16	15	12	16	17	11	13	52	48
Yolo	14	25	16	15	16	8	7	58	42
Yuba	13	14	25	9	10	18	11	68	33
Sutter	13	14	25	9	10	18	11	68	33
Placer	28	15	17	17	6	9	8	68	32
El Dorado	20	34	21	7	4	13	1	76	24
Technical Committee	32	12	16	9	10	4	17	62	38
Municipal Committee	21	16	14	11	16	9	12	57	43

A non-representative public survey was administered to assess the importance of each Equity criteria to community members. The survey was used as a supplement to the committee weightings, since some committees are made up of only a few representatives.

Table 3 Public Survey Weighting Results

County	Cost Burden	People with Disabilities	Older Adults	Educational Attainment	Linguistic Isolation	Youth	Pollution Burden	Income	Race & Ethnicity
Sacramento	28	12	13	12	5	11	18	58	42
Yolo	28	11	13	11	7	12	17	59	41
Yuba	27	11	15	16	4	12	15	76	24
Sutter	29	13	14	15	7	12	10	78	22
Placer	27	10	17	13	2	12	18	67	33
El Dorado	26	14	17	10	4	13	15	75	25

To account for discrepancies between Committee and public survey weighting, the sets of weights were averaged to produce the final weightings shown below.

Table 4 Final Weights

County	Cost Burden	People with Disabilities	Older Adults	Educational Attainment	Linguistic Isolation	Youth	Pollution Burden	Income	Race & Ethnicity
Sacramento	22	14	13	14	11	11	16	55	45
Yolo	21	18	15	13	12	10	12	59	42
Yuba	20	13	20	13	7	15	13	72	29
Sutter	21	14	20	12	9	15	11	73	28
Placer	28	13	17	15	4	11	13	68	33

El Dorado	23	24	19	9	4	13	8	76	25
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The standardized values for each block group are then multiplied through the weight assigned to each criterion and county. The step produces a weighted standardized score for every block group across each criterion.

Step 4: Score Block Groups

Next the weighted criteria values are summed to generate a composite score, with 200 being the highest theoretical score. The composite scores are then normalized on a scale of 0-100, with 100 representing the highest scoring block group and 0 representing the lowest scoring block group. The normalization allows for an analysis of the relative performance for each of the block groups compared to the highest- and the lowest-scoring areas across the SACOG region. The formula for summing the weighted criteria is as follows:

$$BG_{CS} = S_C + S_D + S_O + S_E + S_{LI} + S_Y + S_P + S_I + S_{R\&E}$$

Where:

BG_{CS} = Composite Score for the block group

S_C = Cost Burden standardized and weighted value for the block group

S_D = People with Disabilities standardized and weighted value for the block group

S_O = Older Adults standardized and weighted value for the block group

S_E = Educational Attainment standardized and weighted value for the block group

S_{LI} = Linguistic Isolation standardized and weighted value for the block group

S_Y = Youth standardized and weighted value for the block group

S_P = Pollution Burden standardized and weighted value for the block group

S_I = Income standardized and weighted value for the block group

$S_{R\&E}$ = Race & Ethnicity standardized and weighted value for the block group

The formula for normalizing the block group scores is as follows:

$$BG_{NCS} = (BG_{CS} - \text{MIN}(\text{range})) / (\text{MAX}(\text{range}) - \text{MIN}(\text{range}))$$

Where:

BG_{NCS} = Normalized Composite Score for the block group

range = Composite Score values for all block groups in SACOG region

Normalized scores are then visualized for the entire SACOG region. This process is summarized in Figure 2. Table 5 shows the minimum and maximum block group score for each county, as well as the normalized score.

Figure 2 Block Group Scoring Overview

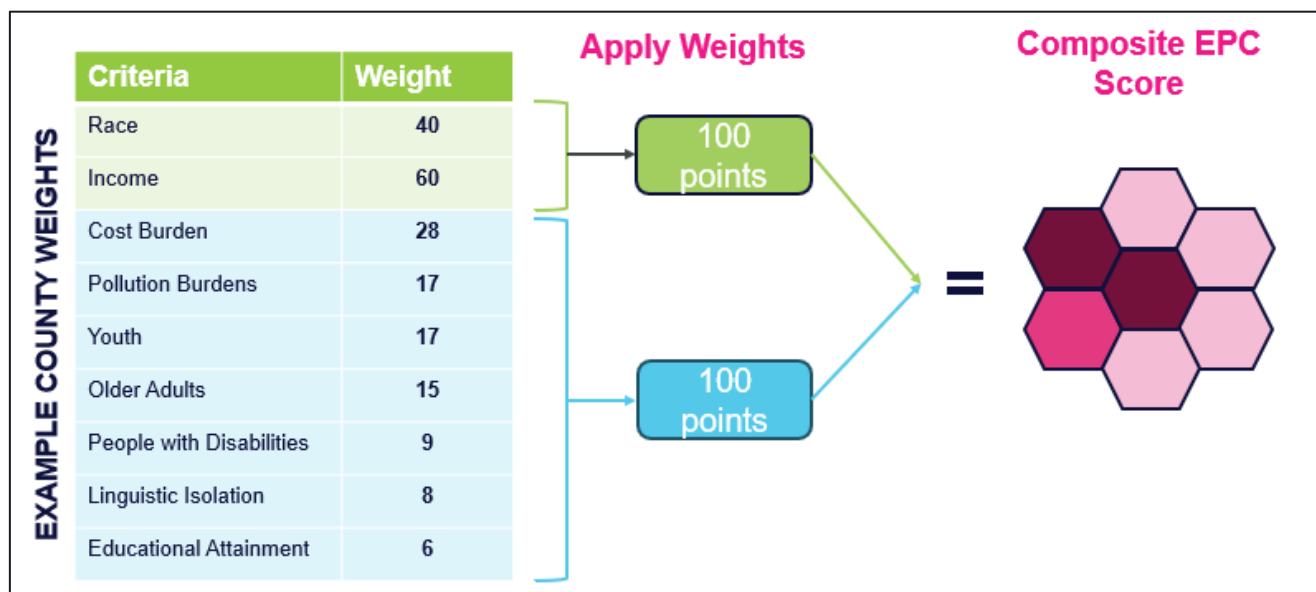


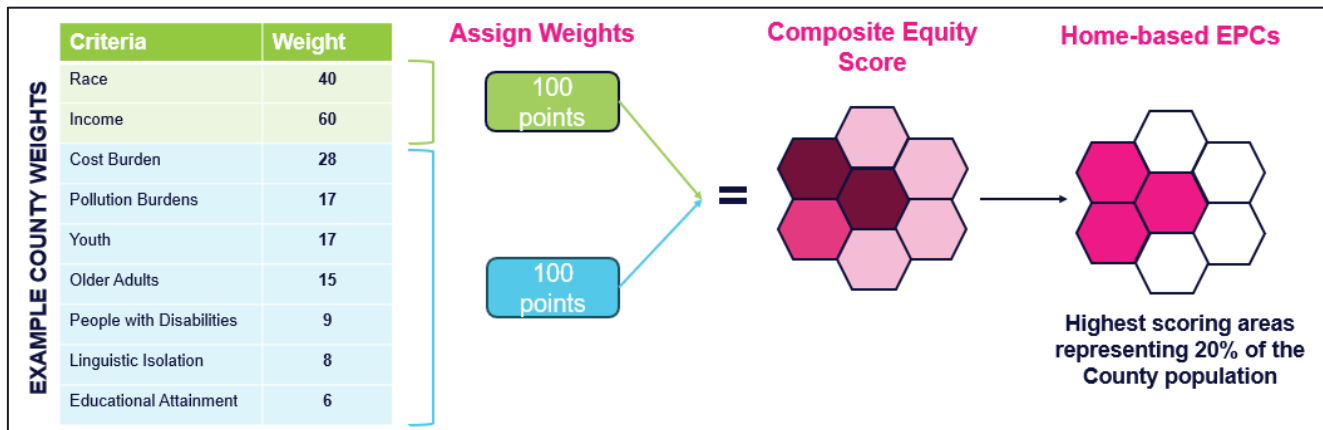
Table 5 Summary of Block Group EPC Score Range

County	Min Score	Max Score	Min Normalized Score	Max Normalized Score
El Dorado	91	137	54	84
Placer	56	108	32	66
Sacramento	98	142	59	87
Sutter	113	161	68	100
Yolo	101	140	61	86
Yuba	69	149	40	92

Step 5: Identify Home-Based EPCs

This step involves selecting the top scoring block groups in each county to move forward as EPCs. A 20-percent population target was set for each county. This ensures that roughly the same number of residents are included in EPCs across each county within SACOG region, even if the number of block groups differ. For example, the top 52 ranked block groups in Placer County include 20 percent of the Placer County population, whereas the top 13 ranked block groups in Yuba County include 20 percent of the Yuba County population. These top ranked block groups were then visualized, as demonstrated in Figure 3.

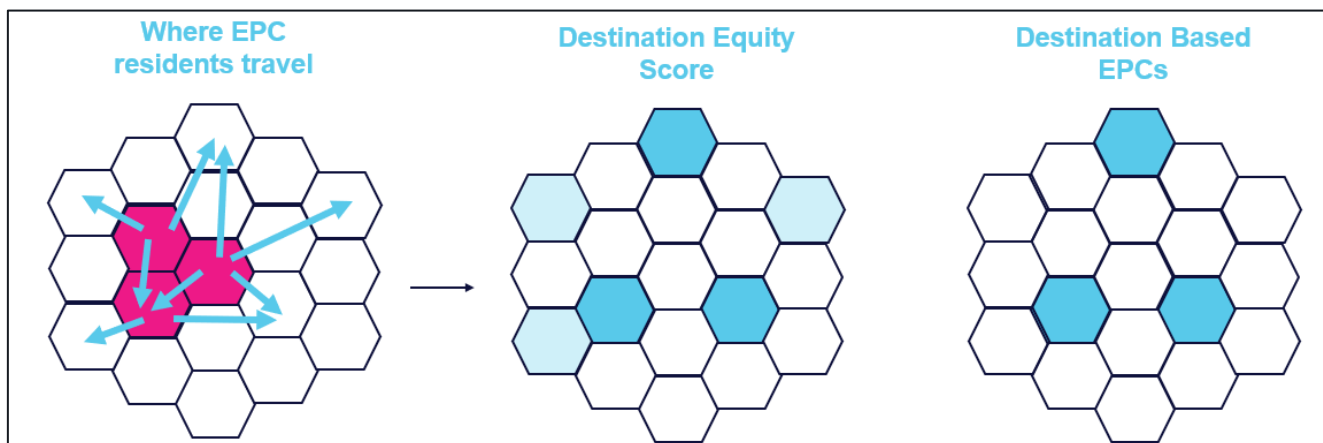
Figure 3 Summary of Home-based EPC Identification Process



Step 6: Identify Destination-Based EPCs

The identification of destination-based EPCs is driven by the volume of trips originating from selected home-based EPCs and intended to reflect destinations where members of disadvantaged communities are typically traveling. The analysis of trip volumes was based on Replica 2024 data, an origin-destination trip matrix at the block group level. Block groups with over 4,000 daily trip destinations from home-based EPCs were selected as destination-based EPCs.

Figure 4 Summary of Destination-based EPC Identification Process



Step 7: Draft EPCs

Some selected destination-based EPCs were already identified as home-based EPCs, resulting in three types of EPCs:

1. Home-based EPCs
2. Destination-based EPCs, and
3. Both home- and destination-based EPCs

Combined, these comprise the EPCs that will be used as a basis for identifying Mobility Zones. These are shown in Figures 5 – 9.

Figure 5 El Dorado County EPCs

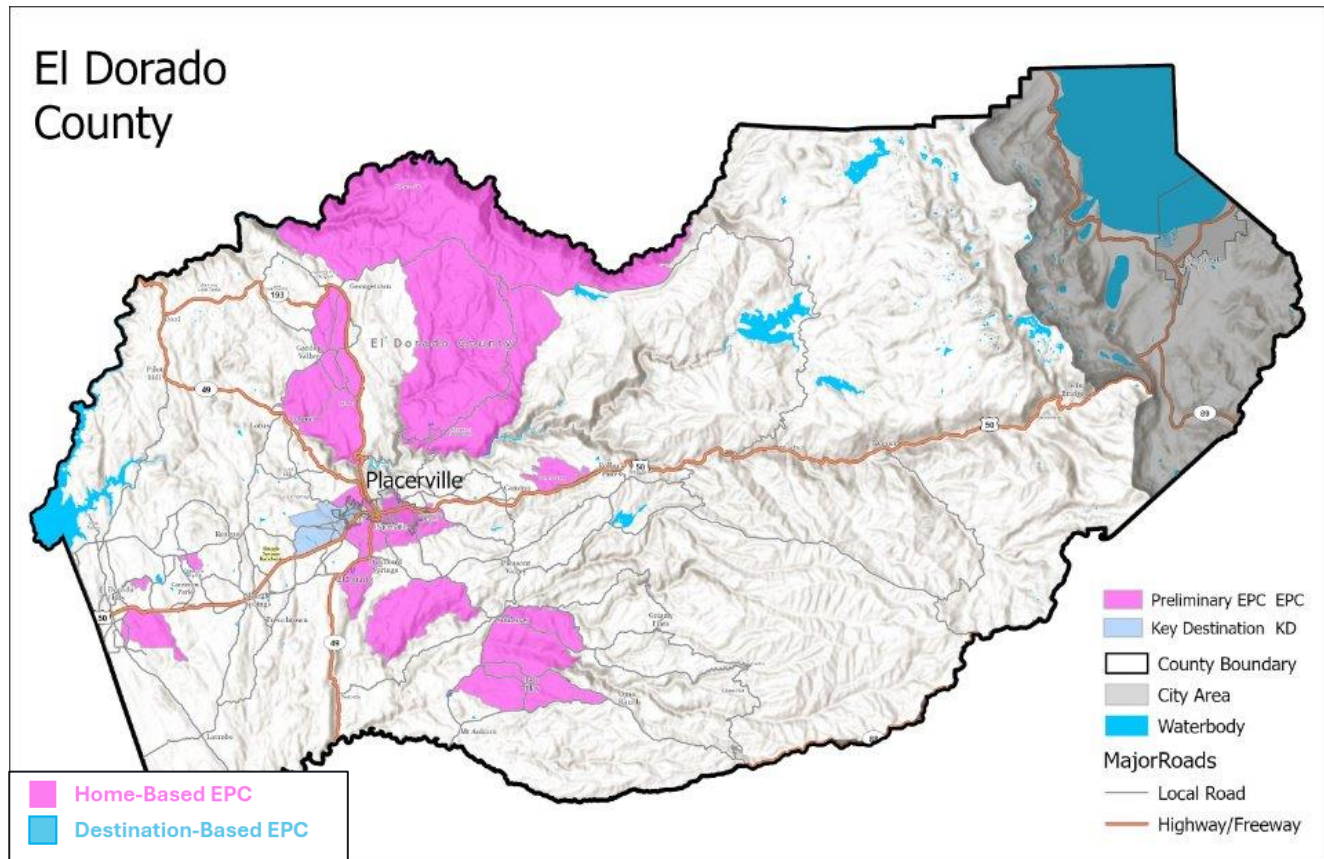


Figure 6 Placer County EPCs

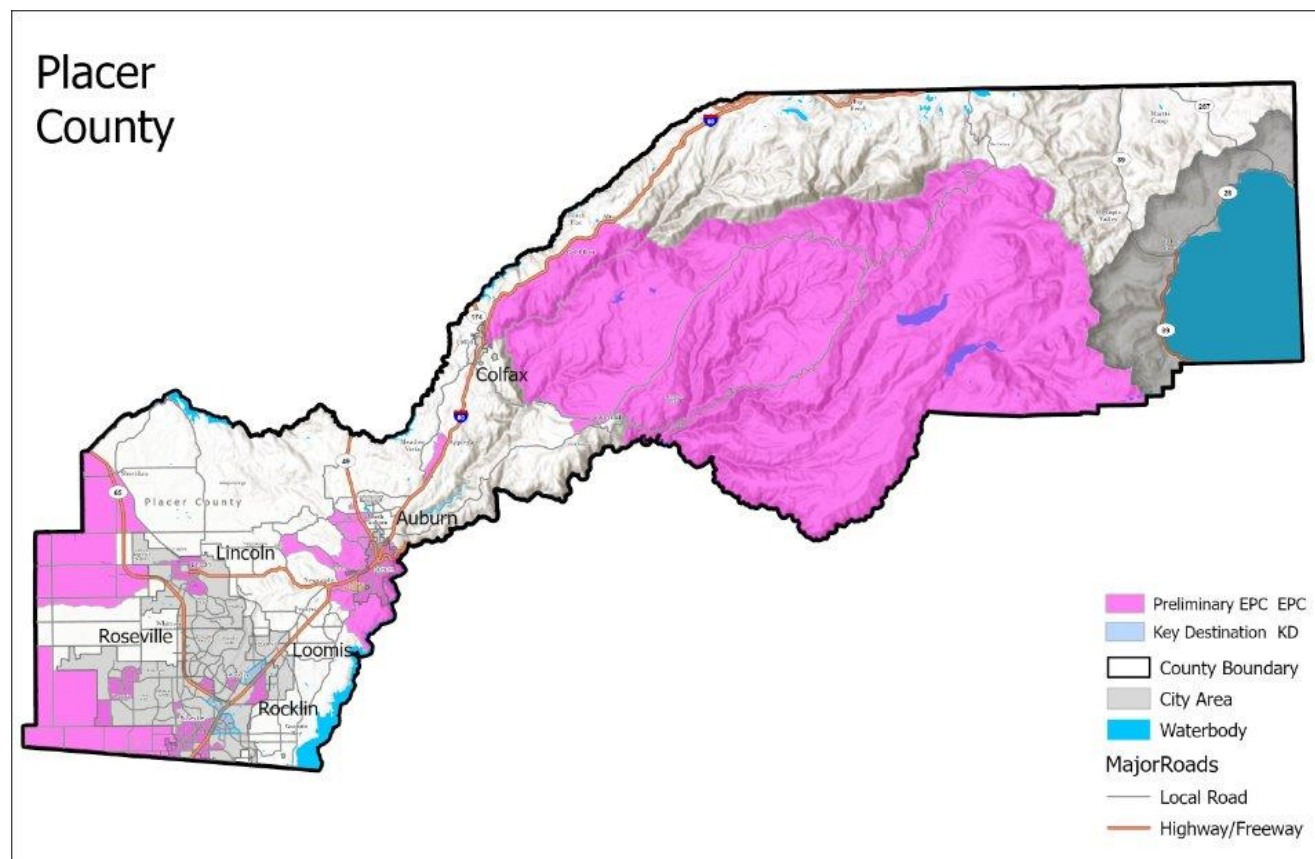


Figure 7 Sacramento County EPCs

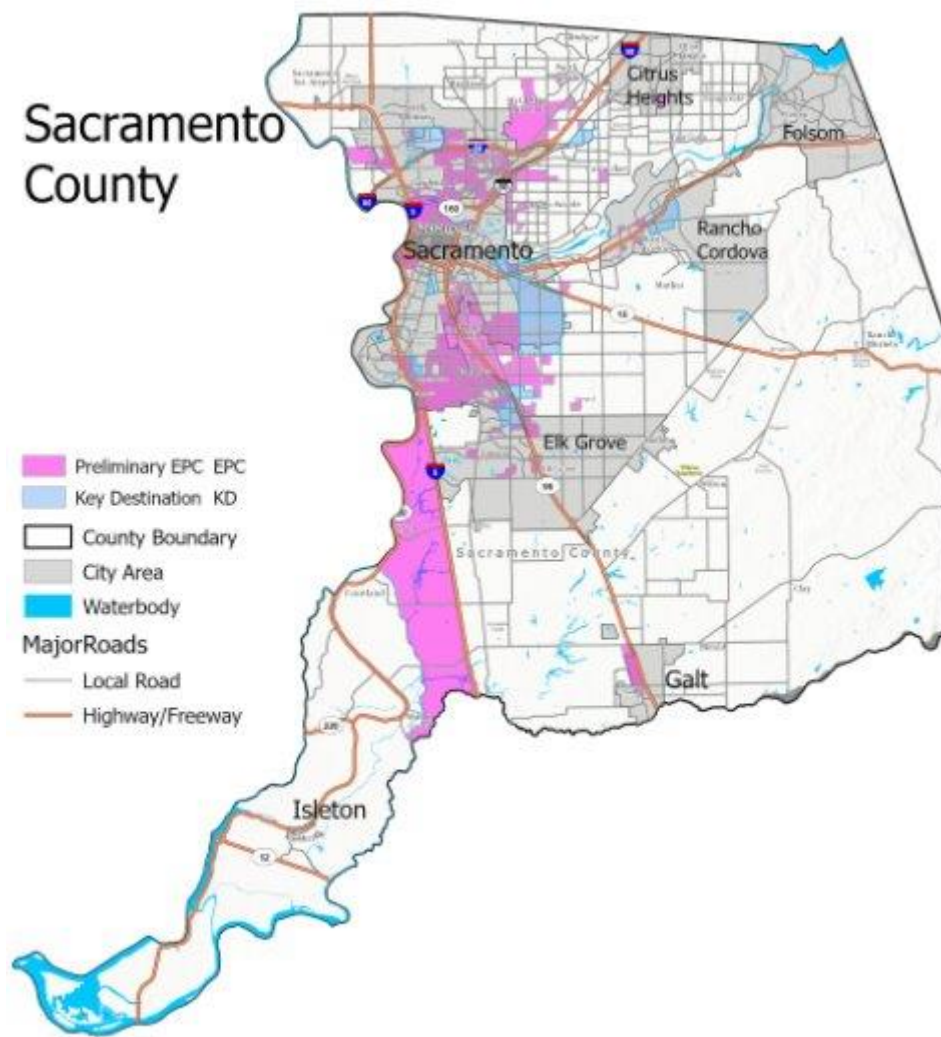


Figure 8 Yolo County EPCs

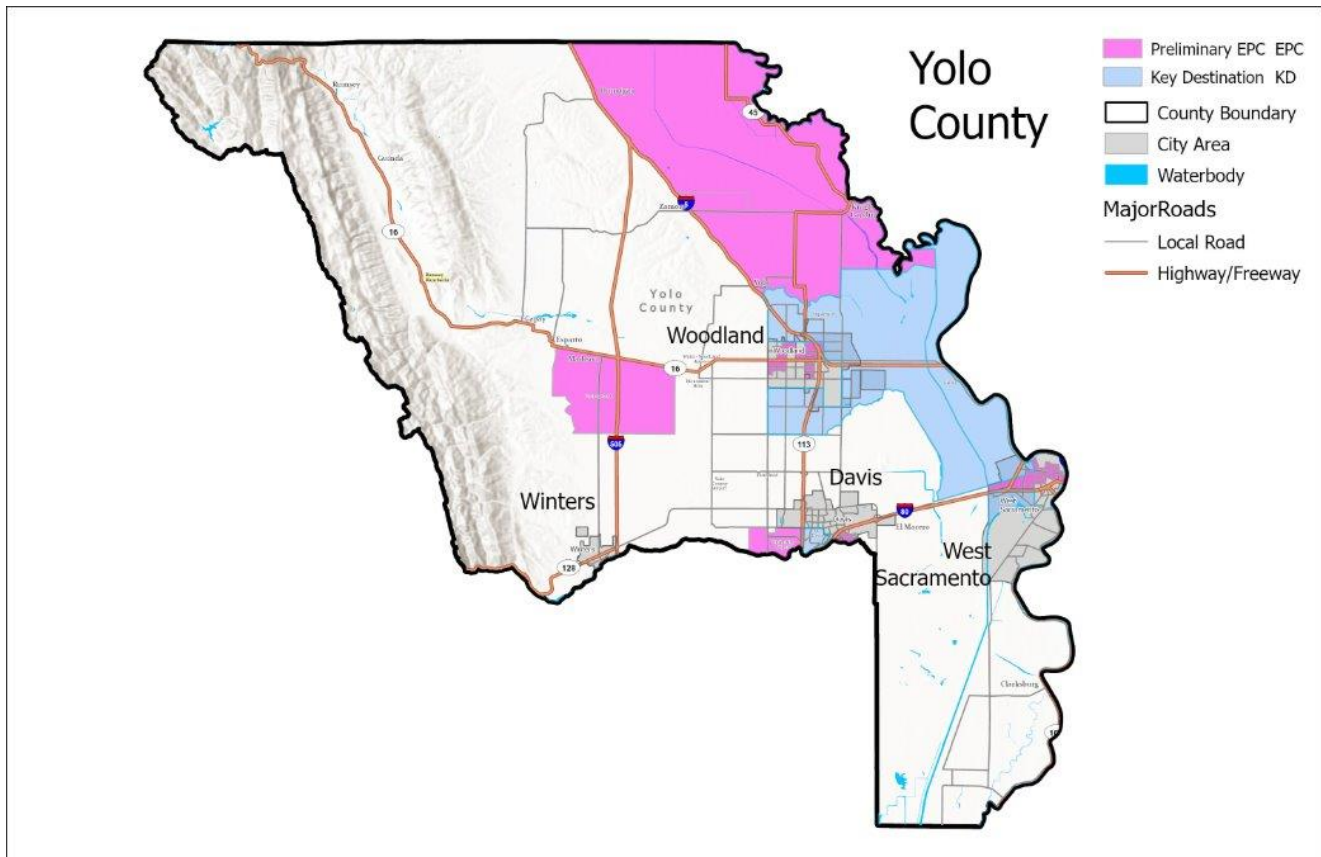
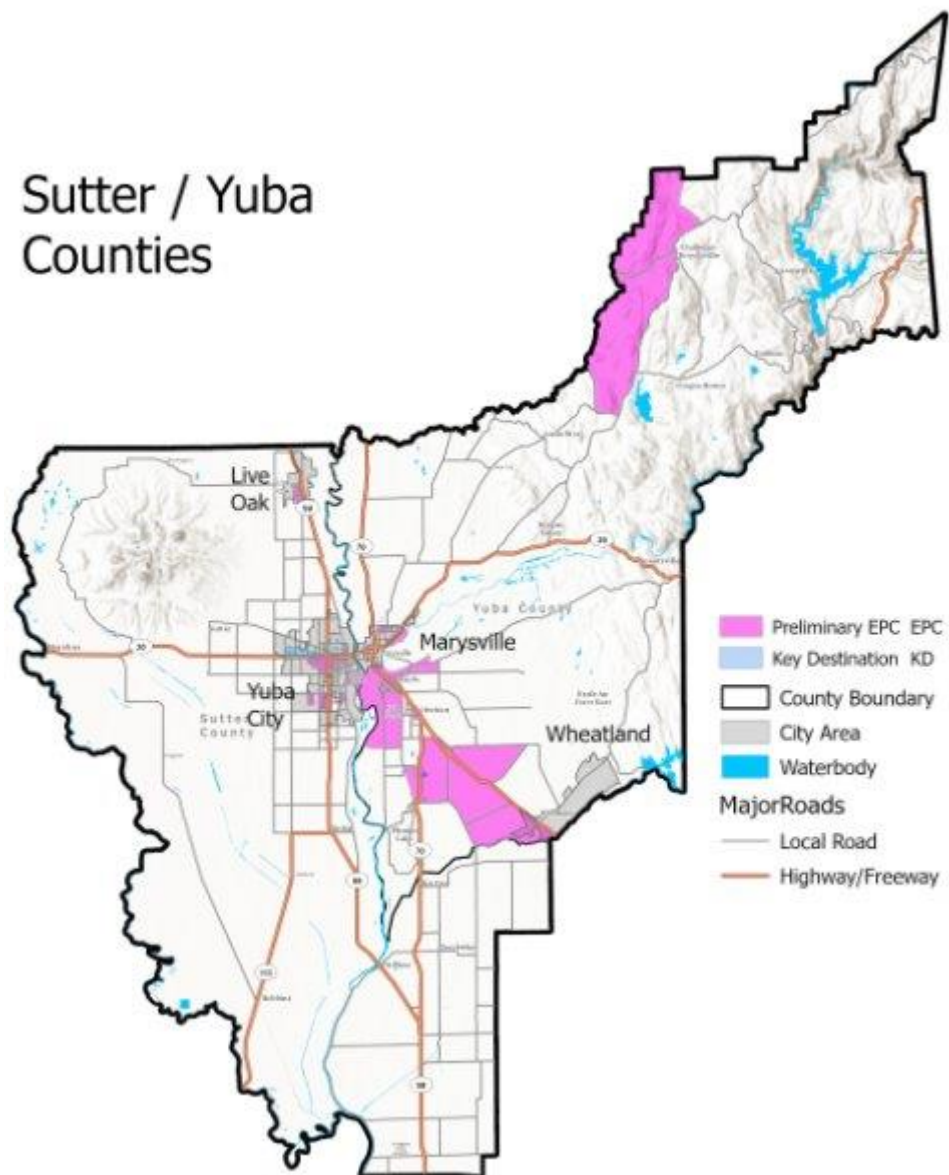


Figure 9 Yuba/Sutter Counties EPCs



High Priority Areas

High Priority Area Overview

High priority areas are Block Groups throughout the SACOG region with the greatest need and greatest opportunity for mobility improvements. High priority areas were identified based on seven criteria related to the Access and Quality of Life (QOL) goals. Access criteria are intended to capture the ability of the transportation system to get people where they want to go, while QOL criteria are intended to capture the impacts of the transportation system on people's health and safety. The criteria are summarized in the following section. High priority areas were assessed in tandem with EPCs to inform the selection of Mobility Zones. Note that the methodology outlined in this document describes a quantitative process used to inform a qualitative identification of Mobility Zones.

Access & Quality of Life Criteria

The Mobility Zones evaluation framework identified three criteria under the Access goal and four criteria under the QOL goal which were used to identify high priority areas. Each criterion is comprised of one to three subcriteria (Table 6 and 7). These criteria and subcriteria were developed and refined through an iterative process based on Committee input, data availability, and best practice. The following section describes the technical methodology for calculating each criterion, and how the criteria were used to identify high priority areas.

Table 6 Access Criteria

Criteria	Subcriteria	Data Source
High Transit Dependency	Higher % of households with more workers than vehicles available	ACS 2018–2022 5-year
	Higher daily trips on transit	Replica Cal-Nev Trips
Limited Transit Access	Longer distance to a transit station from a block group's population-weighted centroid	US EPA Smart Location Database (Smart Location Mapping US EPA)
	Rural transit access – longer distance to light rail transit or a bus stop with <60 minute headways	GTFS for major SACOG transit operators
Access to Community Resources	Better access to businesses and services, shops and restaurants (hotspots ¹ of more than 10 businesses)	Open Street Map (Open Street Map HOT Export Tool)
	Better access to elementary schools	Open Street Map (Open Street Map HOT Export Tool)
	Better access to community centers and libraries	Open Street Map (Open Street Map HOT Export Tool)

¹ Coordinates rounded to 3 decimal places (clustering all the crashes within 360 ft – an approximate size of an intersection/block)

Table 7 QOL Criteria

Criteria	Subcriteria	Data Source
High Pollution Burden	High CalEnviroScreen percentile	CalEnviroScreen 4.0
	Higher traffic congestion intensity during 4 slowest weekday hours (<0.4 by link)	SACOG Congestion Management Process Update, 2020
	Arterial truck volumes >1,500 vehicles per day	Replica Cal-Nev Trips
	Highway truck volumes >3,000 vehicles per day	Replica Cal-Nev Trips
Lack of Safety	More crash hotspots: At least four severe crashes in the area ¹ over the span of two years (2022-2023)	TIMS Transportation Injury Mapping System
	More bike and pedestrian crash hotspots: At least two severe crashes involving pedestrians or cyclists in the area ¹ over the span of two years (2022-2023)	TIMS Transportation Injury Mapping System
Lack of Multimodal Infrastructure	Lower National Walkability Index	US EPA Smart Location Database (Smart Location Mapping US EPA)
	Lower sidewalk coverage % of road length with sidewalks present on both sides of the street	SACOG Centerlines Shapefile
	Lower bike infrastructure coverage % of bike infrastructure (bike paths, lanes, and bikeways) compared to the road network length	SACOG Open Data: Existing and Proposed Bike Facilities
Poor Road Quality	Higher percent of streets with a Pavement Condition Index <50	SACOG Centerlines Shapefile

High Priority Area Identification Process

The section presents the detailed technical methodology used to identify High Priority Areas, starting with a summary of the five steps involved and additional detail on each step to follow:

- **Step 1: Summarize Data at the Block Group Level:** Compile and clean data; summarize all criteria at the block group level, apply point/line data to block groups using buffers.
- **Step 2: Establish Buffers and Thresholds by Urbanicity Type:** Thresholds were established at the block group level to determine whether each subcriterion was met based on urbanicity type, using binary yes/no assignments based on specific numeric or proximity-based criteria.
- **Step 3: Identify Criteria Met by Each Block Group:** Block groups are assigned a binary value (yes/no) for each subcriterion, and if any subcriterion within one of the criteria is flagged as “yes,” the entire criterion is also flagged as “yes.”
- **Step 4: Score block groups:** Sum all the binary criteria values by block group to generate a composite score (range of 0 to 7).

Step 1: Summarize Data at the Block Group Level

The data used to calculate each criterion comes in different spatial units. For example, transit ridership data is available at the block group (polygon) level, while truck traffic data is available by roadway link (line data), while crashes are available at specific locations (point data). The raw data for each subcriterion must be processed in a way that supports analysis at the block group level. This was done by establishing buffers and/or thresholds for line and point data to enable identification of where each block group intersected with the data for each subcriterion. A specific block group would match with a buffer if its population-weighted centroid falls within the buffer. These buffers and thresholds are described in further detail in Step 2.

More details about the estimation of the metrics can be found in the [Pro Formas documentation](#).

Step 2: Establish Buffers and Thresholds by Urbanicity Type

Once data was summarized at the block group level, thresholds were established to assess which subcriteria were met by each block group. The purpose of this is to assign a binary value (yes/no) to each block group signifying whether or not it meets each subcriteria. For example, a threshold of 100 daily transit trips was established to assess the “higher daily transit trips” subcriterion. Block groups that met the threshold were assigned a “yes”. To assess point and line data, proximity based thresholds (buffers), described in Step 1, were used.

Some subcriteria have specific thresholds for different urbanicity types of block groups. For example, for better access to elementary schools subcriterion to be assigned a “yes” a rural block group would need to be within 3 miles from an elementary school, while an urban or suburban block group – within a half mile. Urbanicity types for each block group were defined based on the land use Blueprint 2025 SACOG Community Subtypes dataset.

The thresholds and buffer sizes were assigned to each subriterion based on several workshops with the SACOG Mobility Zones project team. Several subcriteria have thresholds based on research and benchmarking, for example for higher traffic congestion intensity, some research suggests that the impact of congestion on health and the surrounding environment tends to be higher within a half a mile of the congested road. For other subcriteria, the thresholds were defined to capture characteristics that correlated with the bottom 10% of Equity Priority Communities (EPCs). For example, for % of households with more workers than vehicles available, roughly 10% of EPCs have more than 15% of such households, hence, the value of 15% was selected as a threshold. Again, urbanicity type of block groups was taken into account when selecting the thresholds and buffers to make sure that each type is represented proportionally.

Criteria	Subcriteria	Urbanicity Type	Threshold/Buffer
High Transit Dependency	Higher % of households with more workers than vehicles available	All	>15%
	Higher daily trips on transit	All	100 trips
Limited Transit Access	Longer distance to a transit station from a block group’s population-weighted centroid	Non-Rural Only	½ mile
	Rural transit access – longer distance to light rail transit or a bus stop with <60-minute headways	Rural Only	7.5 miles

Access to Community Resources	Better access to businesses and services, shops and restaurants (hotspots of more than 10 businesses)	All	Urban/Suburban: ½ mi Rural: 3 mi
	Better access to elementary schools	All	Urban/Suburban: ½ mi Rural: 2 m
	Better access to community centers and libraries	All	Urban/Suburban: ½ mi Rural: 3 mi
High Pollution Burden	High CalEnviroScreen percentile	All	>90 th percentile
	Higher traffic congestion intensity during 4 slowest weekday hours (<0.4 by link)	All	½ mi
	Arterial truck volumes >1,500 vehicles per day	All	<½ mi
	Highway truck volumes >3,000 vehicles per day	All	<1/4 mi
Lack of Safety	More crash hotspots	All	Urban/Suburban: <1 mi Rural: <2 mi
	More bike and pedestrian crash hotspots	All	<1/2 mi
Lack of Multimodal Infrastructure	Lower National Walkability Index	All	Urban/Suburban: <10 Rural: <5
	Lower sidewalk coverage	All	<10%
	Lower bike infrastructure coverage	Non-rural only	<10%
Poor Road Quality	Higher percent of streets with a Pavement Condition Index <50	All	>90%

Step 3: Identify Criteria Met by Each Block Group

Once each subcriterion was assigned a binary value (yes/no) by block group, they were then aggregated to the seven Access and Quality of Life criteria. If any of the underlying subcriteria were flagged as a “yes”, the entire criteria was flagged as a “yes”. For example, Lack of Multimodal Infrastructure has three underlying subcriteria; if lower sidewalk coverage is flagged as a “yes” for this block group, then the entire criteria is also flagged as a “yes” even if other subcriteria (lower national walkability Index and bike infrastructure coverage) were not met.

Step 4: Score Block Groups

Next the binary criteria values (“yes” = 1, “no” = 0) are summed by block group to generate a composite score, with 7 being the highest potential score. The formula for summing the weighted criteria is as follows:

$$BG_{HP} = C_{HTD} + C_{LTA} + C_{ACR} + C_{HPB} + C_{LS} + C_{LMI} + C_{PRS}$$

Where:

BG_{HP} = High Priority Composite Score for the block group

C_{HTD} = High Transit Dependency flag for the block group

C_{LTA} = Limited Transit Accessibility flag for the block group

C_{ACR} = Access to Community Resources flag for the block group

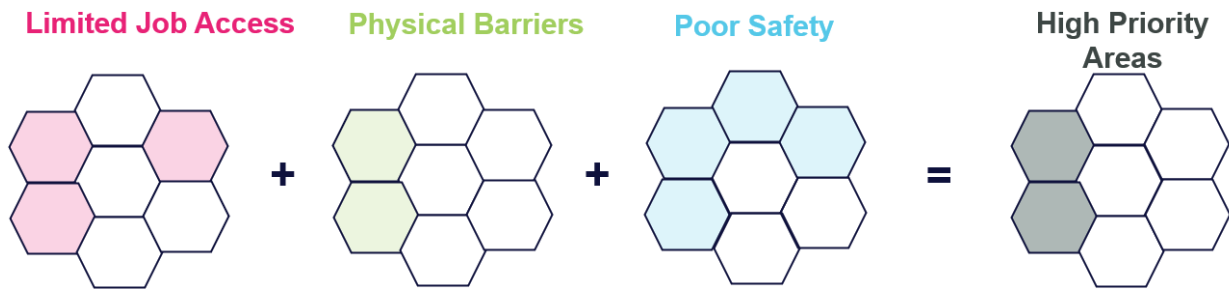
C_{HPB} = High Pollution Burden flag for the block group

C_{LS} = Lack of Safety for the block group

C_{LMI} = Lack of Multimodal Infrastructure for the block group

C_{PRS} = Poor Road Quality for the block group

Figure 10 High Priority Areas process illustration



Mobility Zones

Mobility Zones Overview

Mobility Zones are neighborhood-sized areas with high transportation and equity need.

Mobility Zones Identification and Selection Process

The Mobility Zones decision-making process is being completed through a multi-level collaborative effort involving community members, community-based organizations (CBOs), local agency/municipality staff, school districts, business chambers, and other local stakeholders. This collaborative effort was organized through the development of one Technical Committee, one Municipal Committee, five Community Committees representing the interests of each county in the SACOG region, and one Project Task Force. Table 8 summarizes basic information about each Committee and the Task Force.

The process to identify Mobility Zones was based on the several steps:

Step 1: Identify Mobility Zones Candidates: SACOG PMT Workshop to identify Mobility Zones (23 zones identified)

Step 2: Prepare Zone Profiles: Collect additional information on socio-economic, demographic and mobility characteristics of each of the 23 Mobility Zones.

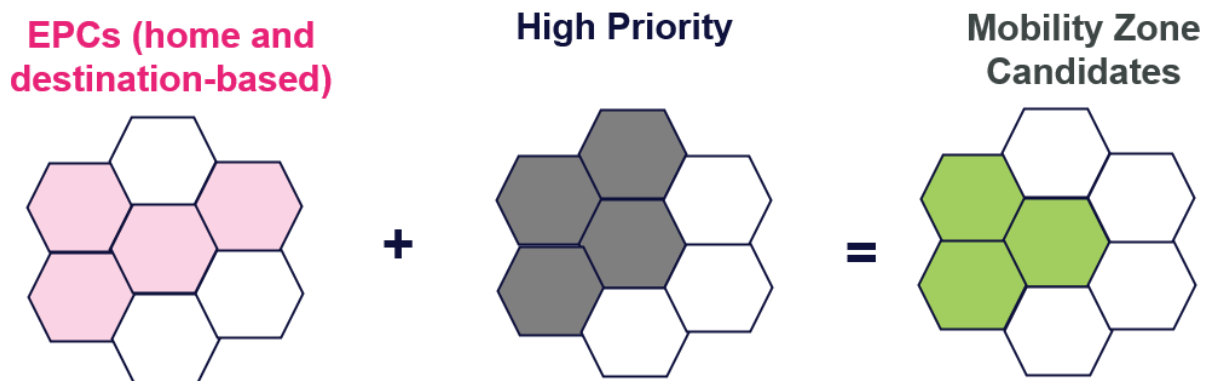
Step 3: Ask Community Committees to rank Mobility Zones in their counties. Identify two to four Candidate Phase 1 Zones per county for discussion with the Municipal and Technical Committees and for rank-choice voting by the Task Force.

Step 4: Draft Phase 1 Mobility Zones

Step 1: Identify Mobility Zones Candidates

The SACOG Mobility Zones Project Management Team had several workshops in November 2024 using GIS to identify Mobility Zones based on the EPCs, High Priority Areas (see Figures 13-19), and general knowledge of regional and local context.

Figure 11 Mobility Zones Candidates identification



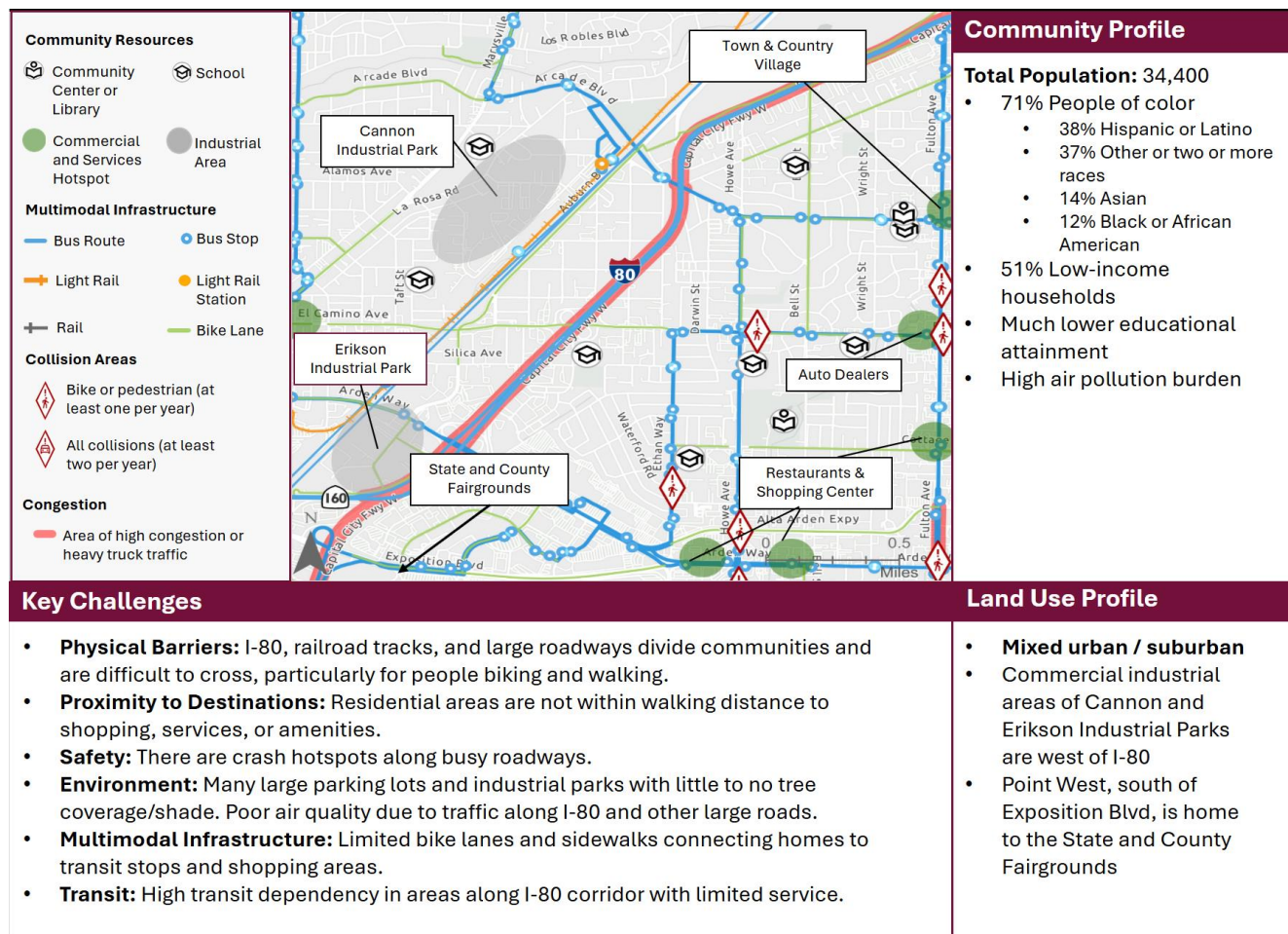
The analysis resulted in the 23 Mobility Zones.

Step 2: Prepare Zone Profiles

In preparation for the identification of Phase 1 Mobility Zones, Zone Profiles were developed to summarize key information from the EPC and High Priority Area analyses, as well as additional desktop research into key challenges and land use conditions in each Zone. A standardized format for the profiles was developed and included the following layers (see an example in Figure 12):

- 1) Map with several features:
 - a. Community Resources: schools
 - b. Multimodal Infrastructure
 - c. Collision Areas
 - d. Congestion
- 2) Community Profile: total population, race and ethnicity, income, pollution, etc.
- 3) Key Challenges: physical barriers, safety, environment, lack of accessibility to destinations, etc.
- 4) Land Use Profile: urbanicity type and key destinations.

Figure 12 Zone Profile example - Ben Ali / Swanston in Sacramento County



Step 3: Workshop with Committees to rank Mobility Zones

Only ten of the twenty-three candidate Mobility Zones could be advanced into Phase 1. The Technical, Municipal, and Community Committees served as the main collaborative bodies that recommended Candidate Phase 1 Mobility Zones through their input, feedback, and overall guidance. The Task Force served as the final decision-making body that narrowed the twenty-three Mobility Zones down to the ten Phase 1 Mobility Zones for project prioritization. Figure 13 presents the basic structure of how information flows through the bodies discussed in the following section.

Table 8: Committee Information.

Name	Number of Committees	Number of Members	Member Composition	Frequency of Meetings	*Primary Role/Function
Community Committees	Five (5)	Six (6) per committee	Community leaders, CBOs, and residents/workers in the county	Every three (3) months	Provide input and rank the Mobility Zones
Municipal Committee	One (1)	~Twenty (20)	Staff from local jurisdictions	Every three (3) months	Provide input and recommendations for the selection of the Phase 1 Mobility Zones
Technical Committee	One (1)	~Twenty (20)	Representatives from transit and planning agencies, Caltrans, utility companies, etc.	Every three (3) months	Provide input and recommendations for the selection of the Phase 1 Mobility Zones
Task Force	One (1)	Seven (7)	One member from each of the committees and non-voting members of the project team	Every three (3) months	Final decision-making body

*Primary role/function regarding the selection of the Phase 1 Mobility Zones.



Figure 13: Mobility Zone Decision-Making Structure.

Local Partners

The project team, consisting of SACOG and Steer staff, engaged with local partners throughout the Mobility Zone selection process to align project goals with local priorities. Local partners provided data resources, information on current initiatives, and input on how the Mobility Zone boundaries should be shaped.

3a. Community Committees

During the fourth round of Community Committee meetings in January 2025, the committee members utilized rank-choice voting to determine the top priority Mobility Zones in their respective counties that should be considered for Phase 1 Mobility Zones. This voting resulted in the identification of twelve Phase 1 Mobility Zone Candidates.

3b. Municipal and Technical Committees

Municipal and Technical Committee members then reviewed the Phase 1 Mobility Zone Candidate list, as well as the Zone profiles and Community Committee input to provide additional information about the selection of Phase 1 Mobility Zones. This process resulted in the inclusion of an additional four Zones in the Phase 1 Mobility Zone Candidates.

3c. Task Force

The Task Force was then presented with the twelve Phase 1 Mobility Zone Candidates put forth by the Community Committees and was asked to rank eleven of them to identify one Mobility Zone for each county. South Yuba City was omitted from ranking and automatically selected as the Phase 1 Mobility Zone for Sutter County, as it was the only Zone recommended by the Yuba/Sutter Committee for Sutter County.

The Task Force then completed a second round of ranked-choice voting, which included three additional Mobility Zones recommended by the Municipal and Technical Committees, to select the remaining four Phase 1 Mobility Zones.

Step 4: Draft Phase 1 Mobility Zones

As a result of this process, ten Phase 1 Mobility Zones were selected.

See the locations of Mobility Zones overlapped with EPCs and High Priority Score data in Figures 13-19. These Phase 1 Mobility Zones will be further refined through community and local partner engagement to draw more accurate and responsive boundaries around each Zone. The final ten Phase 1 Mobility Zones will be presented to the SACOG Board of Directors for final approval.

Figure 14 SACOG Selected Mobility Zones Phase 1

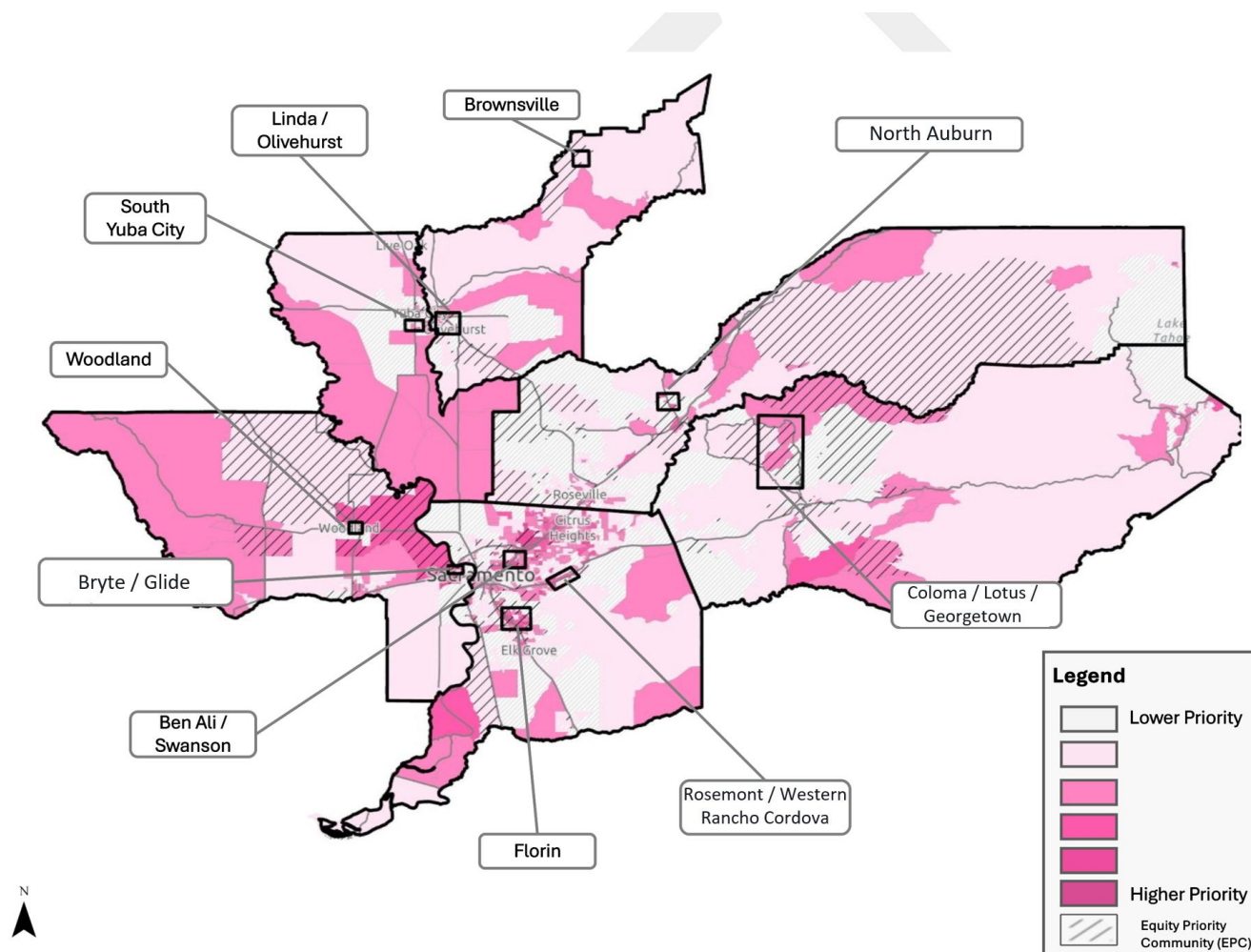


Figure 15 Yuba: Selected Mobility Zones

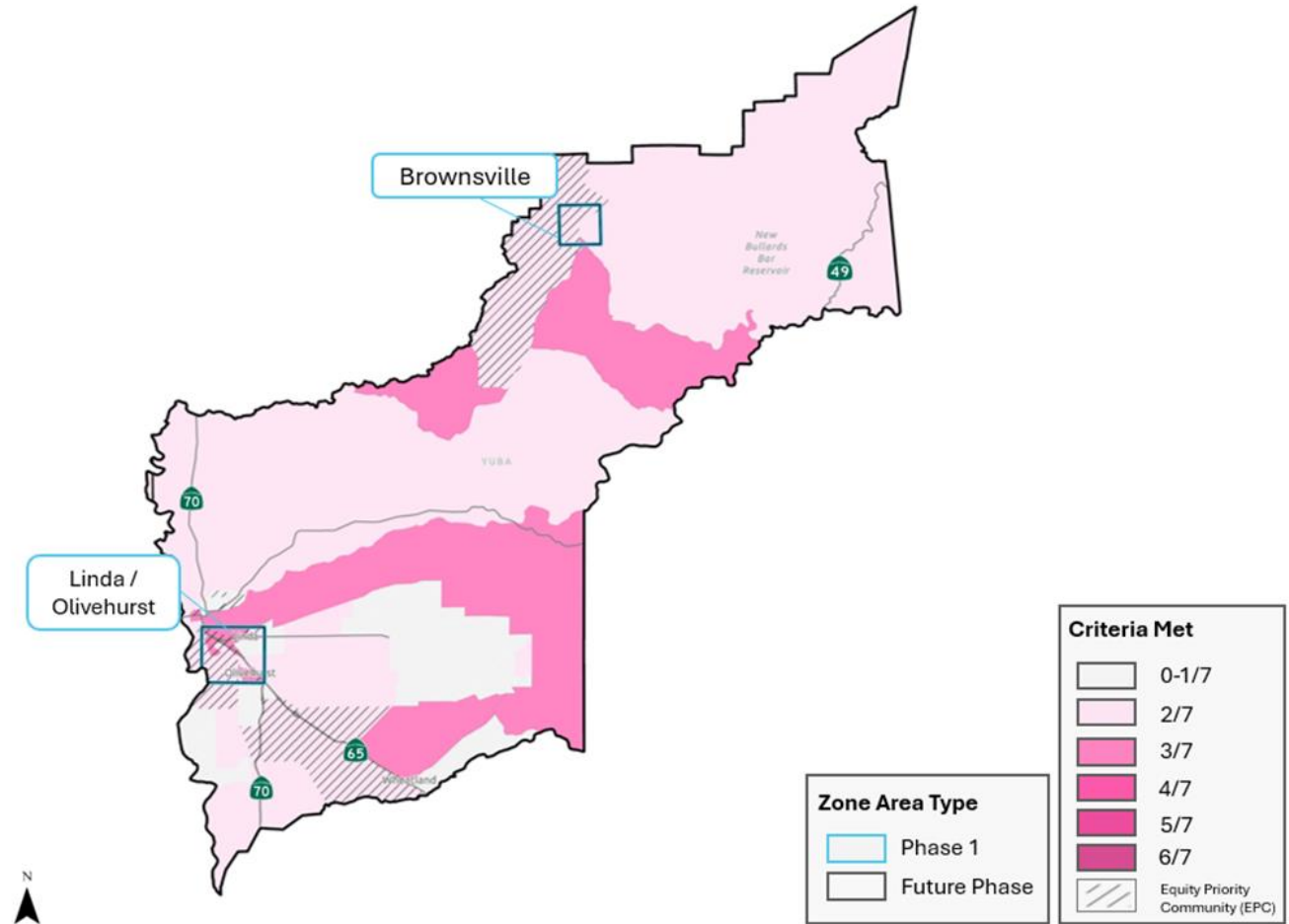


Figure 16 Sutter: Selected Mobility Zones

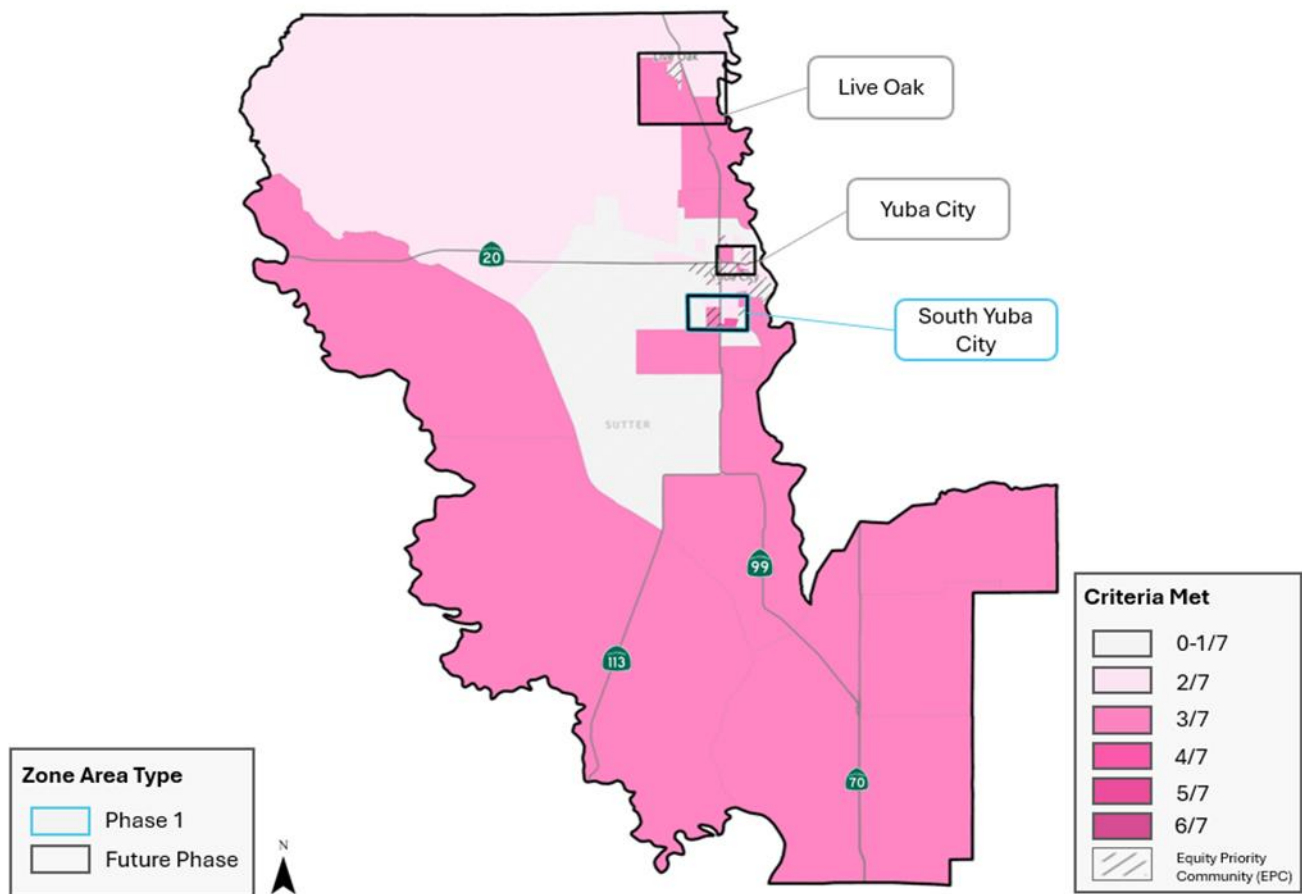


Figure 17 Yolo: Selected Mobility Zones

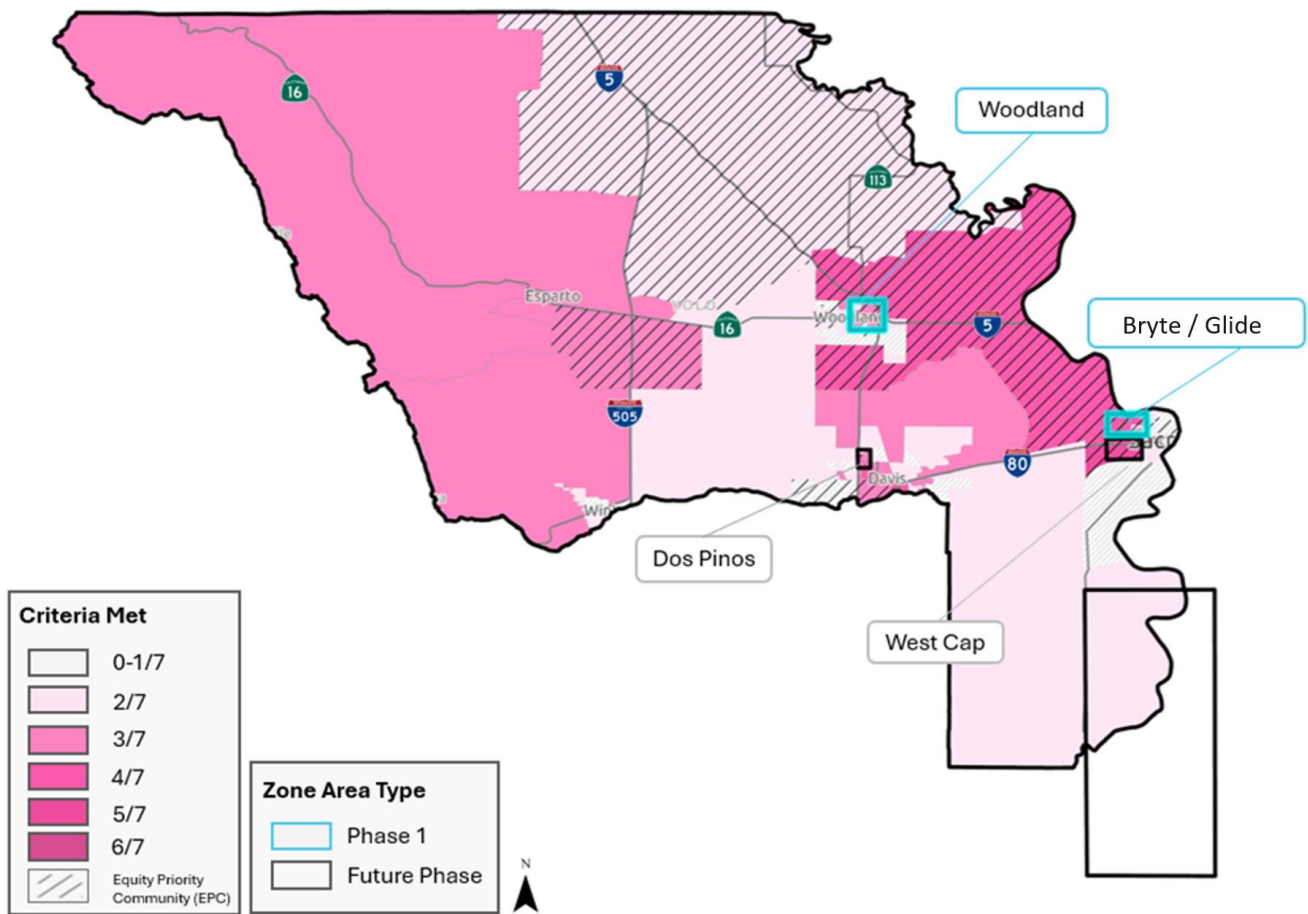


Figure 18 Sacramento: Selected Mobility Zones

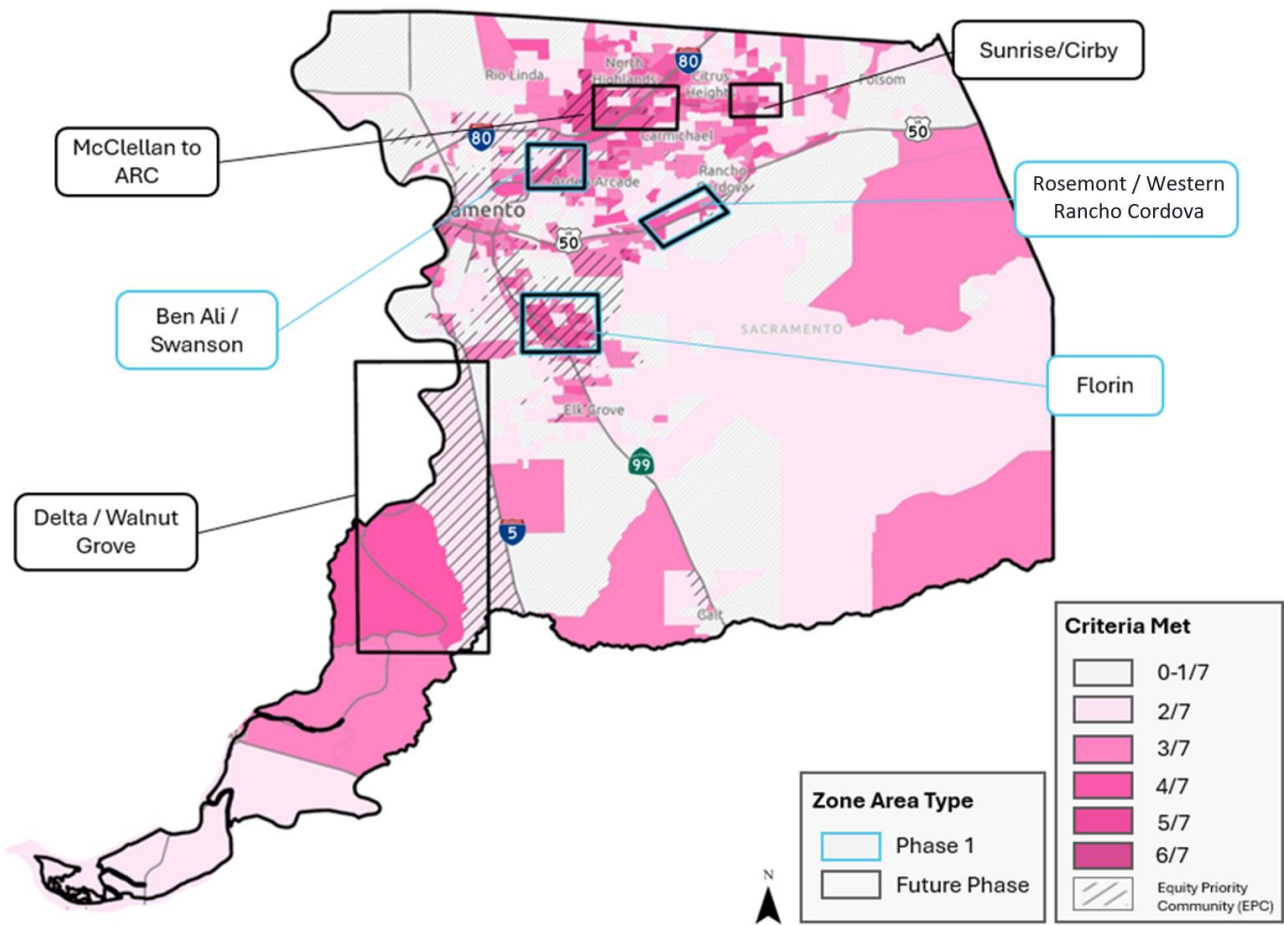


Figure 19 El Dorado: Selected Mobility Zones

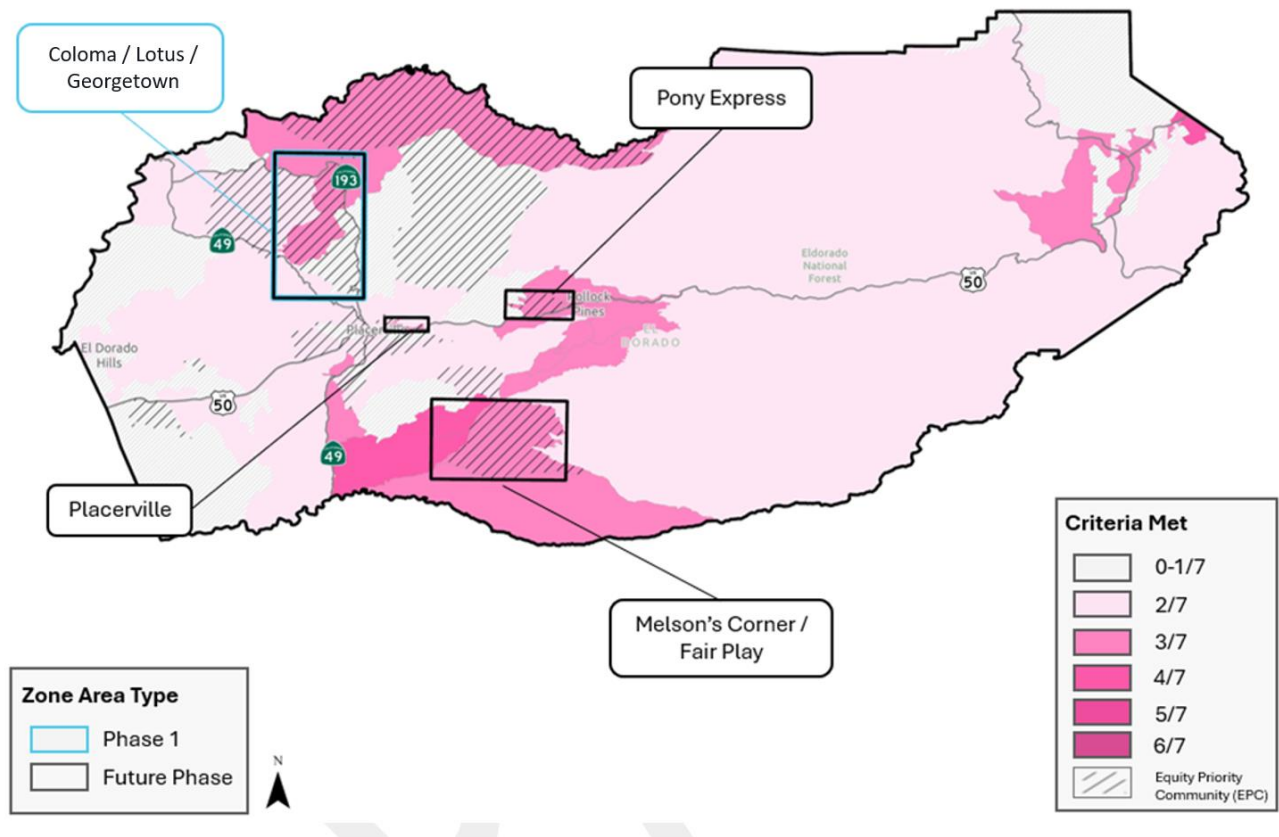
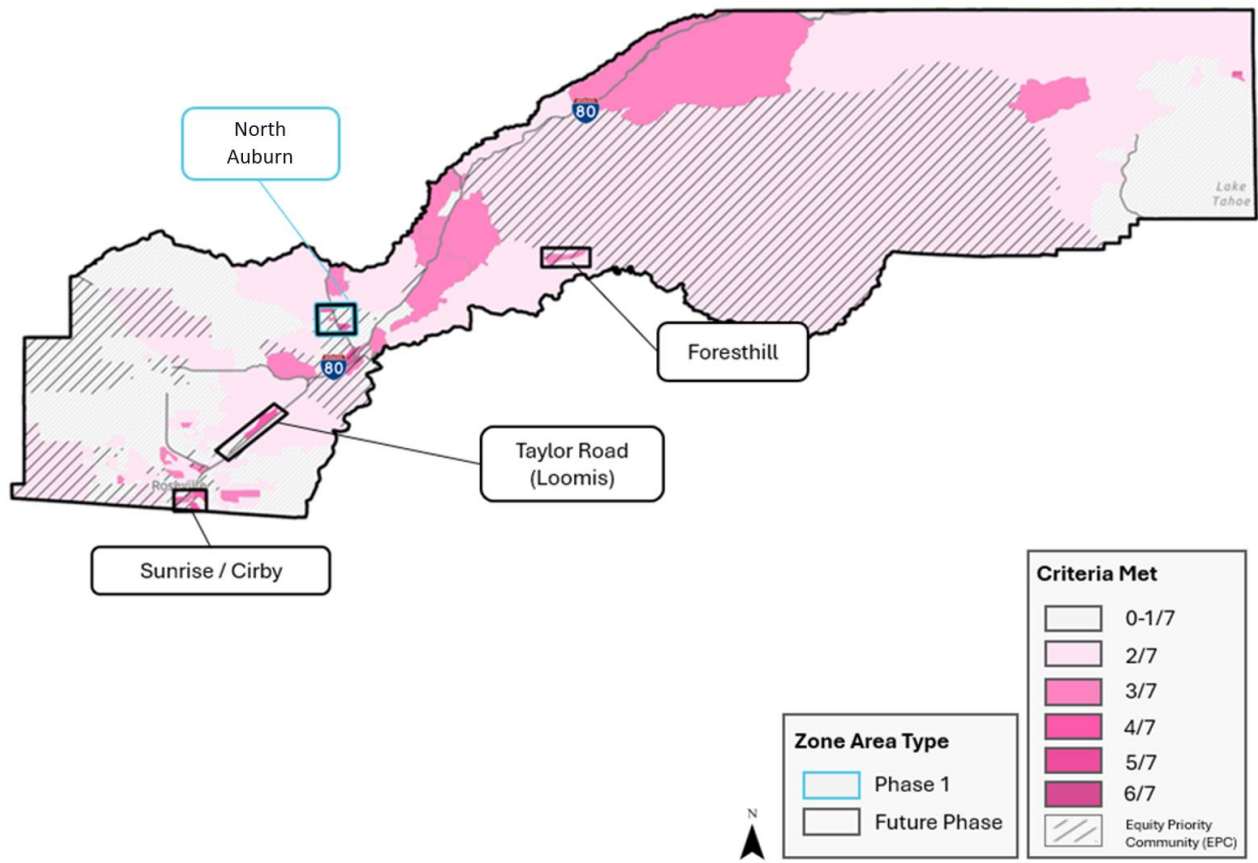


Figure 20 Placer: Selected Mobility Zones



Mobility Zones Boundaries Identification Process

Phase 1 Mobility Zones were selected based on general rectangles to indicate the area of focus. The team then began to develop more detailed boundaries using technical data, as well as community and jurisdictional input.

The process to define Mobility Zones boundaries was based on five steps:

Step 1: Collect Community Feedback on Phase 1 Mobility Zones: collect input on boundaries, places to go, challenges, and opportunities via community engagement and meetings with local jurisdictions.

Step 2: Process and Visualize Datasets for Boundaries Identification: process relevant datasets, including community input and data on key destinations, physical barriers, and land use.

Step 3: Draft Initial Boundaries: draft initial boundaries based on data in Step 2. Share draft boundaries local jurisdictions for their review.

Step 4: Present the Draft Boundaries to the Task Force for Approval: present the draft boundaries and rationale behind them to Task Force for additional feedback and approval.

Step 5: Draft Phase 1 Mobility Zones Boundaries

Step 1: Collect Community Feedback on Phase 1 Mobility Zones

Defining Mobility Zone boundaries relied heavily on community feedback, which was collected through three main channels: community engagement, meetings with local jurisdictions, and an online map survey.

Community Engagement

CivicThread organized a series of in-person events and pop-ups across ten Phase 1 Mobility Zones. Key results:

- 510 people engaged **in person** with the Mobility Zones, leaving a total of 921 comments across the 10 zones
 - People by county- El Dorado (52), Placer (9), Sacramento (208), Yolo (39), Sutter (65), Yuba (137)
- 14,000 homes/business reached through direct mail
- Tapping into existing events and partner organizations
- Capturing feedback from linguistically isolated communities: In-person engagement took place in 6 languages (English, Spanish, Farsi, Pashto, Russian, and Punjabi)

The team aggregated the community input for all Zones where data was available, eight out of ten Phase 1 Mobility Zones. Ben Ali / Swanston and Coloma / Lotus / Georgetown did not receive direct community input on proposed boundaries.

Local Jurisdictions Meetings

Ten meetings—one for each Phase 1 Mobility Zone – were held to gather input from local agency and municipality staff on boundaries, key challenges, opportunities, and relevant projects.

Online: Maptionnaire

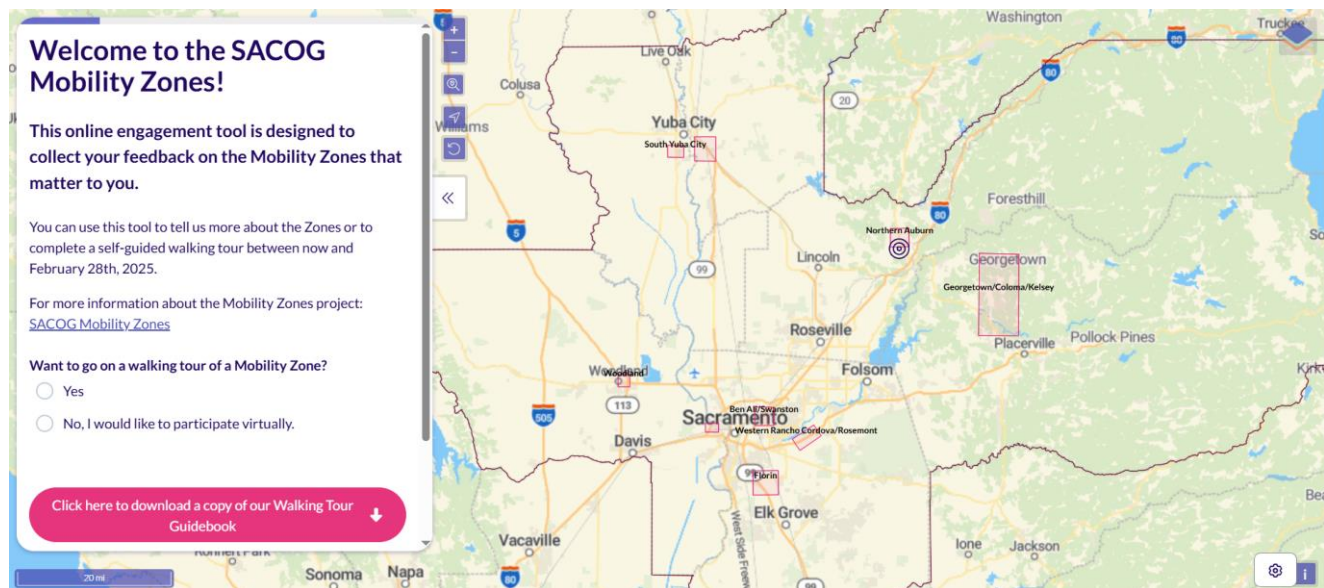
Maptionnaire (app.maptionnaire.com) is a map-based, online survey platform.

The primary goal of the Phase 1 Mobility Zones survey was to create a digital platform for gathering community input — complementing the in-person outreach events hosted by Civic Thread. The tool allowed participants to drop pins at specific locations to respond to the following questions:

- 1) Opportunity Areas – Question: *What transportation opportunities do you see in this area? Where would you like to see transportation improvements?*
- 2) Places to Go - Question: *Where is a location that you go to which you often travel? How often do you go there and why?*
- 3) Challenges - Question: *Where do you see transportation challenges in this area? Where do you have difficulty getting around? Consider the condition or absence of sidewalks, bike lanes, or transit stops or busy roads.*

The tool also allowed respondents to draw proposed boundaries by outlining where they believed the Mobility Zones project should focus. While a rough boundary box was provided on the map as reference, users were encouraged not to feel limited by it.

Figure 21 Maptionnaire survey on Mobility Zones, an example of one of the pages



Respondents were invited to share demographic information, including their racial/ethnic identity, gender, income, age, languages spoken at home, and ZIP code. To protect privacy, all demographic questions were optional, kept confidential, and used only for aggregate analysis.

The survey was available online for approximately four weeks. A total of 331 visitors accessed the survey and 149 of them left feedback on the platform. The survey was available in seven languages (English, Spanish, Farsi, Russian, Punjabi, Hmong, and Vietnamese).

The number and distribution of inputs is provided in Table 9.

Table 9 Maptionnaire response summary

Type of input	Responses
Boundary	15
Opportunity area	20
Place to go	46
Challenge	38

Step 2: Process and Visualize Datasets for Boundaries Identification

The team collected and processed all relevant datasets. Community feedback was geo-coded and aggregated on the [ArcGIS Online platform](#). Additional pre-existing datasets — such as high priority areas, key community destinations, barriers, and land use data — were also uploaded to inform the analysis.

Community Feedback

#	Name	Description
1	Community Engagement	One aggregated boundary per Phase 1 Mobility Zone was developed based on input received during in-person events, such as boundaries drawn by hand on vellum paper.
2	Maptionnaire Boundaries	Individual boundaries drawn on Maptionnaire platform.
3	Maptionnaire Pins	The Places to Go, Challenges, and Opportunities Pins gathered via Maptionnaire.
4	Local Jurisdictions Boundaries	Boundaries drawn based on meetings with local jurisdictions.

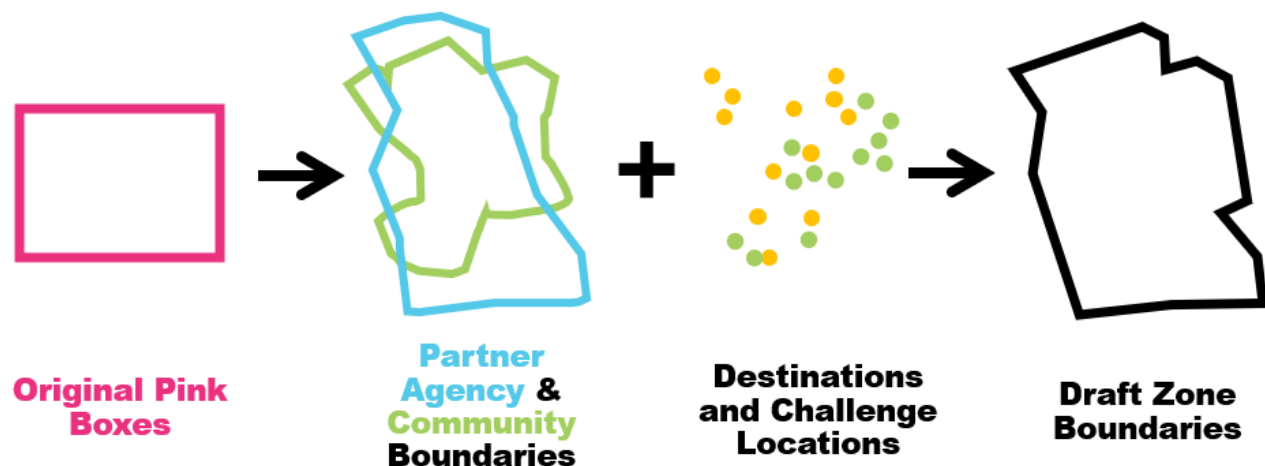
Additional datasets

#	Name	Description
5	High priority areas: Access & Quality of Life	A score out of seven reflecting Access & Quality of Life metrics evaluated during the previous stage of the project at Census Block Group Level
6	Key destinations	<ul style="list-style-type: none"> Schools by type Hospitals High-capacity transit, including light rail (lines and stops) Commercial hotspots (hotspots of more than 10 businesses: services, shops and restaurants) Community Centers and Libraries
7	Physical Barriers	<ul style="list-style-type: none"> Rivers, creeks Large Parks Major Arterials Railways Collision hotspots (severe only, all and bike-ped)
8	Land Use data	Parcel level data on land use types (residential, industrial, commercial, etc.), population and employment density

Step 3: Draft Initial Boundaries

The process to draft the initial boundaries was structured in two phases (see Figure 22).

Figure 22 Boundaries Identification Process



Phase 1: Community input:

The team started with the initial rectangles (pink), then layered on the three key community feedback boundaries layers: community engagement (green), local jurisdictions (blue), and Maptionnaire polygons (yellow, not shown in graphic) to draft a preliminary, input-responsive boundary.

Phase 2: Key Destinations:

The team then reviewed the additional data layers to ensure that the new boundaries include key destinations and account for physical barriers, which may serve as natural boundaries.

The key destinations were split by priority:

1) Priority 1:

- High need areas: Access & Quality of Life
- Middle- / High-schools
- Hospitals
- High-capacity transit and LRT
- Other Maptionnaire engagement points (Challenges, Opportunities, Places to Go)
- Exclude: major industrial and logistics land uses.

2) Priority 2:

- Elementary schools
- Commercial hotspots
- Collision hotspots

Natural and built features — such as rivers, creeks, parks, railways, and major roads — were used as boundaries, where appropriate. A 0.1 mi buffer was added to the proposed boundaries to ensure coverage on both sides of major streets and to capture areas with limited connectivity, such as those along railway corridors.

Step 4: Discuss the Draft Boundaries with Task Force

The team first reviewed the draft boundaries in a workshop with the PMT, then shared them with local agency and municipal staff for feedback.

After incorporating partner input, the preliminary boundaries were presented to the Task Force for review and approval.

Step 5: Draft Phase 1 Mobility Zones Boundaries

The maps on the following pages represent the proposed Draft Boundaries, shown as black polygons. These boundaries were informed by several key data sources, each represented in different colors:

- Green: Community engagement input
- Blue: Local jurisdiction feedback
- Yellow: Maptionnaire survey responses
- Pink: Original rectangular reference area.

Each figure also includes key considerations for the Draft Boundaries, provided on the right-hand side of the map for context.

Figure 23 Coloma / Lotus / Georgetown boundaries

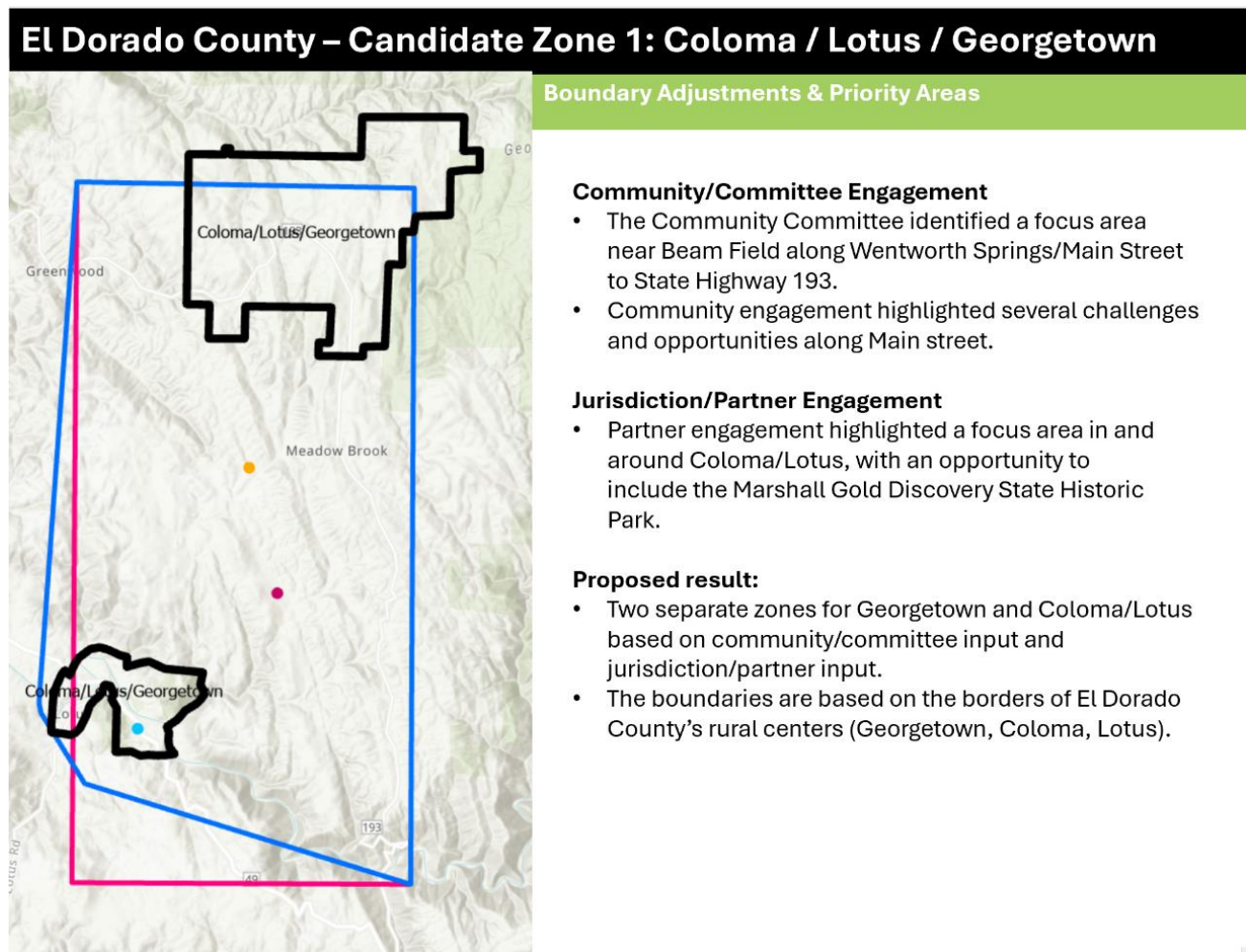


Figure 24 North Auburn boundaries

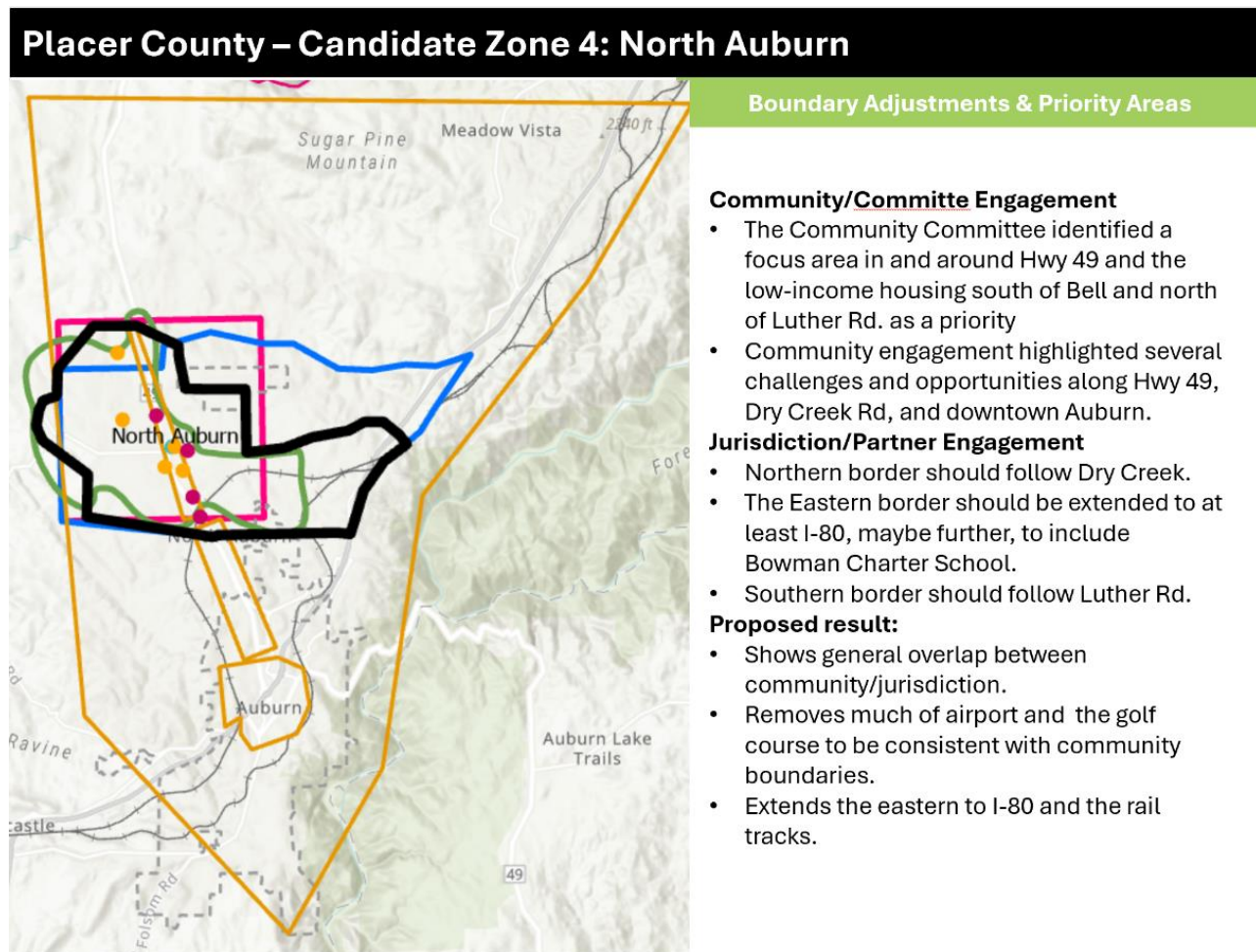
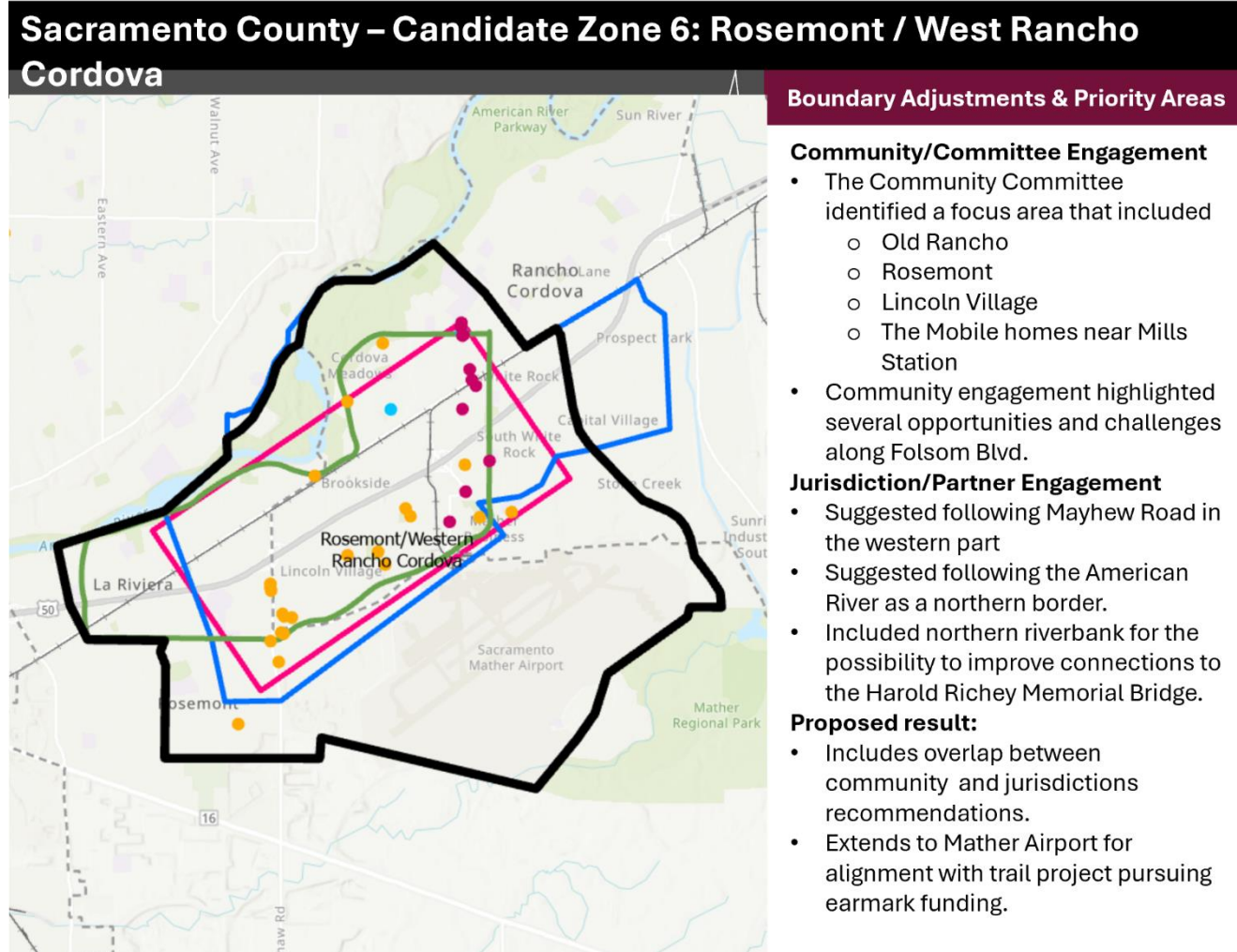


Figure 25 Rosemont / Western Rancho Cordova boundary



Sacramento County – Candidate Zone 2: Florin

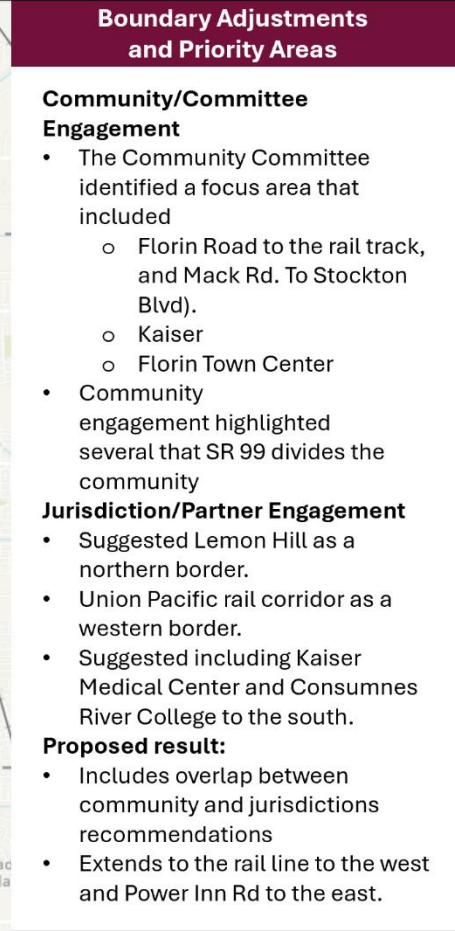
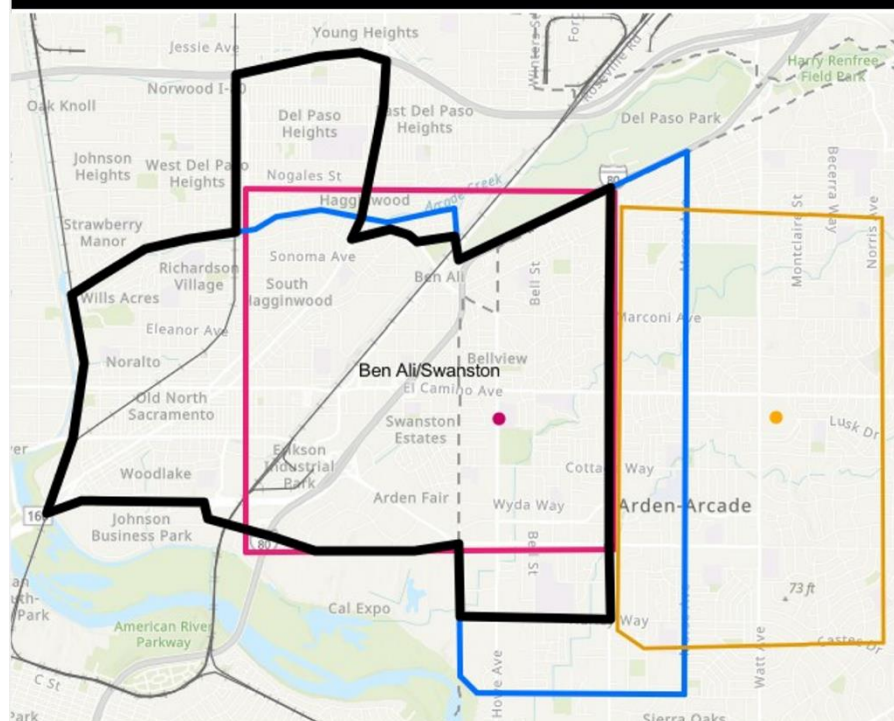


Figure 27 Ben Ali / Swanston boundary

Sacramento County – Candidate Zone : Ben Ali / Swanston



Boundary Adjustments & Priority Areas

Community/Committee Engagement

- Community engagement highlighted several opportunities and challenges along routes to several schools
- * No community boundaries drawn for this zone.

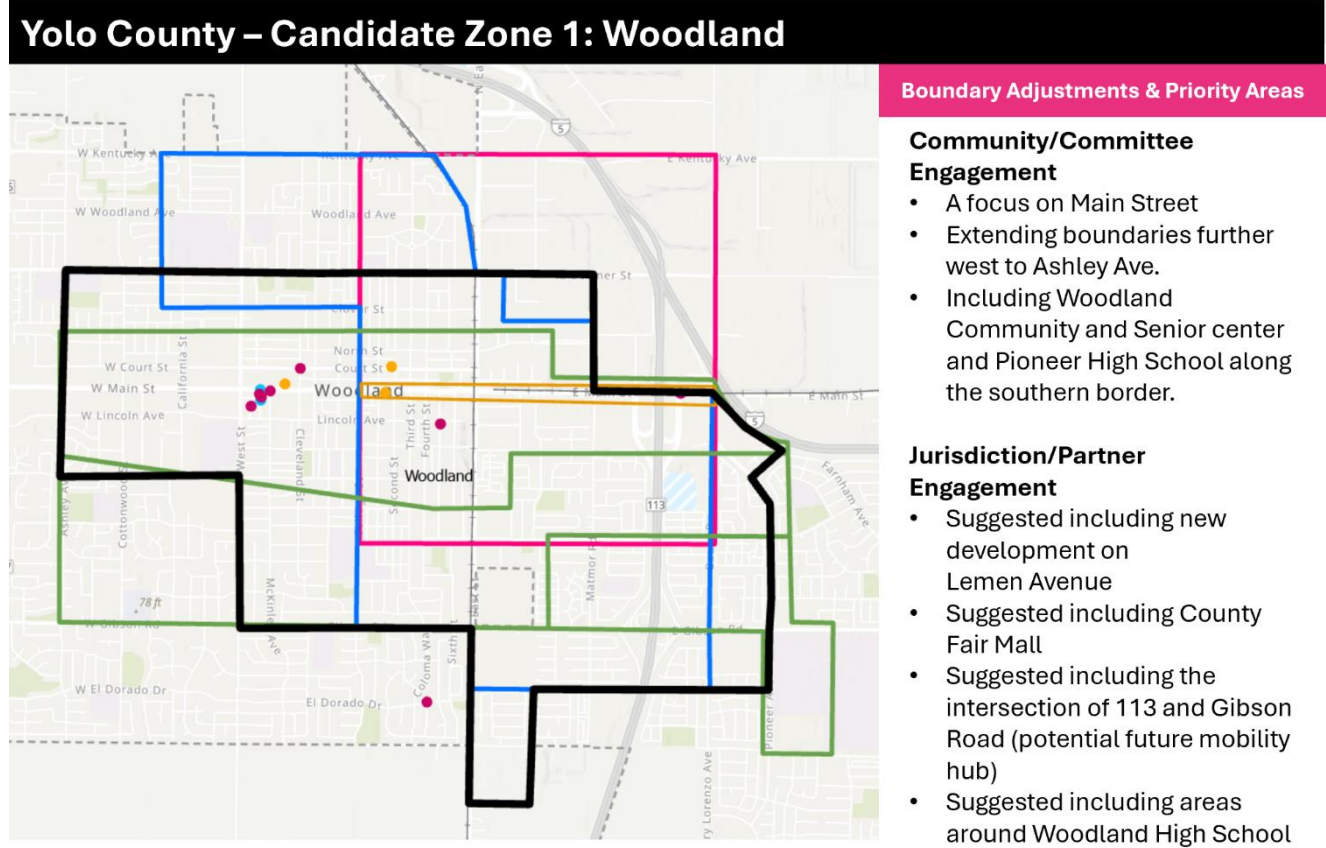
Jurisdiction/Partner Engagement

- Suggested capturing the Globe Ave light rail station and future Old North Sacramento Rail station.
- Extend the southeastern border to Hurley Way.
- Place the Eastern border between Fulton and Watt Ave.

Proposed result:

- Extends across Arcade Creek to capture the core of Del Paso Heights in North Sacramento, considered Fulton Ave as an eastern border.

Figure 28 Woodland boundary

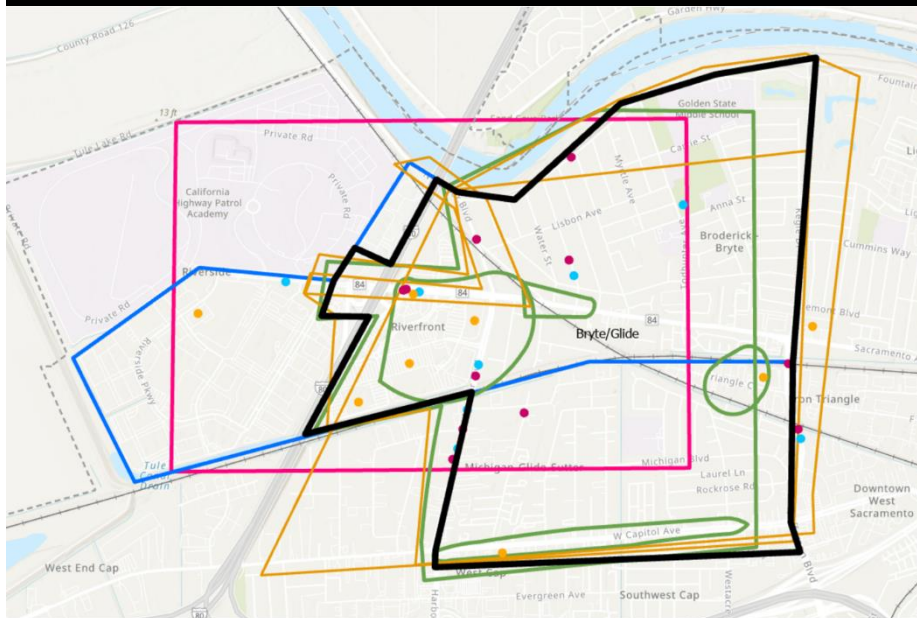


Proposed result:

Proposed boundary focuses on the central core of Woodland with an effort to include the Woodland Community Senior Center in the south.

Figure 29 Bryte / Glide boundary

Yolo County – Candidate Zone 3: Bryte / Glide



Boundary Adjustments & Priority Areas

Community/Committee Engagement

- The Community Committee identified West Capitol Ave as a high priority area
- Community engagement highlighted the need to remove the north-western industrial and institutional area from the zone.

Jurisdiction/Partner Engagement

Suggested including

- Rail corridor as southern border
- Using Jefferson – Kagle Dr as the eastern border
- Using the river as the northern border.

Proposed result:

- Eastern and northern boundaries align between community and jurisdiction engagement.
- Uses W Capitol Ave as southern border to align with community feedback.
- Include area around I-80 and Sacramento Ave ramps.

Figure 30 Brownsville boundary

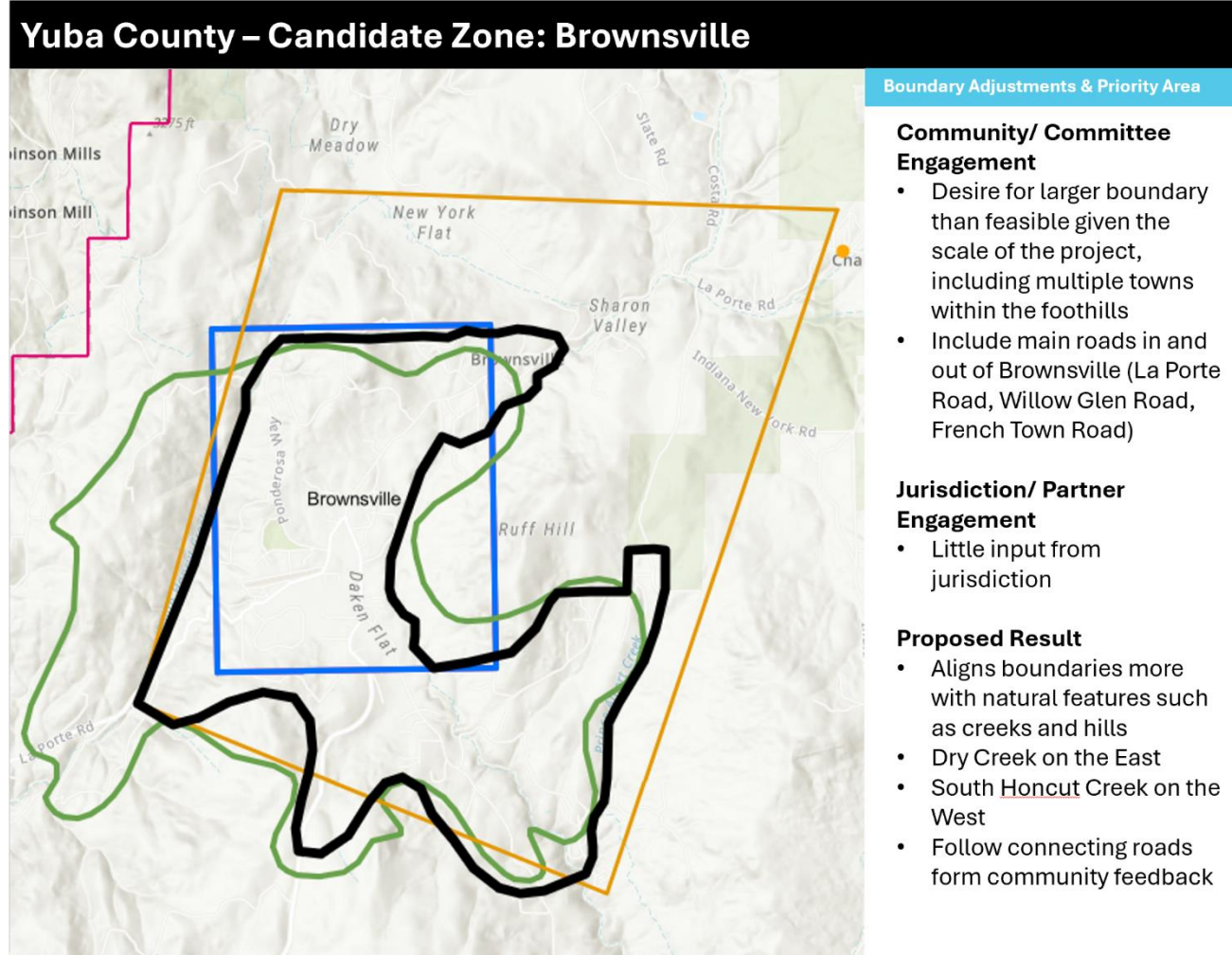


Figure 31 Linda / Olivehurst boundary

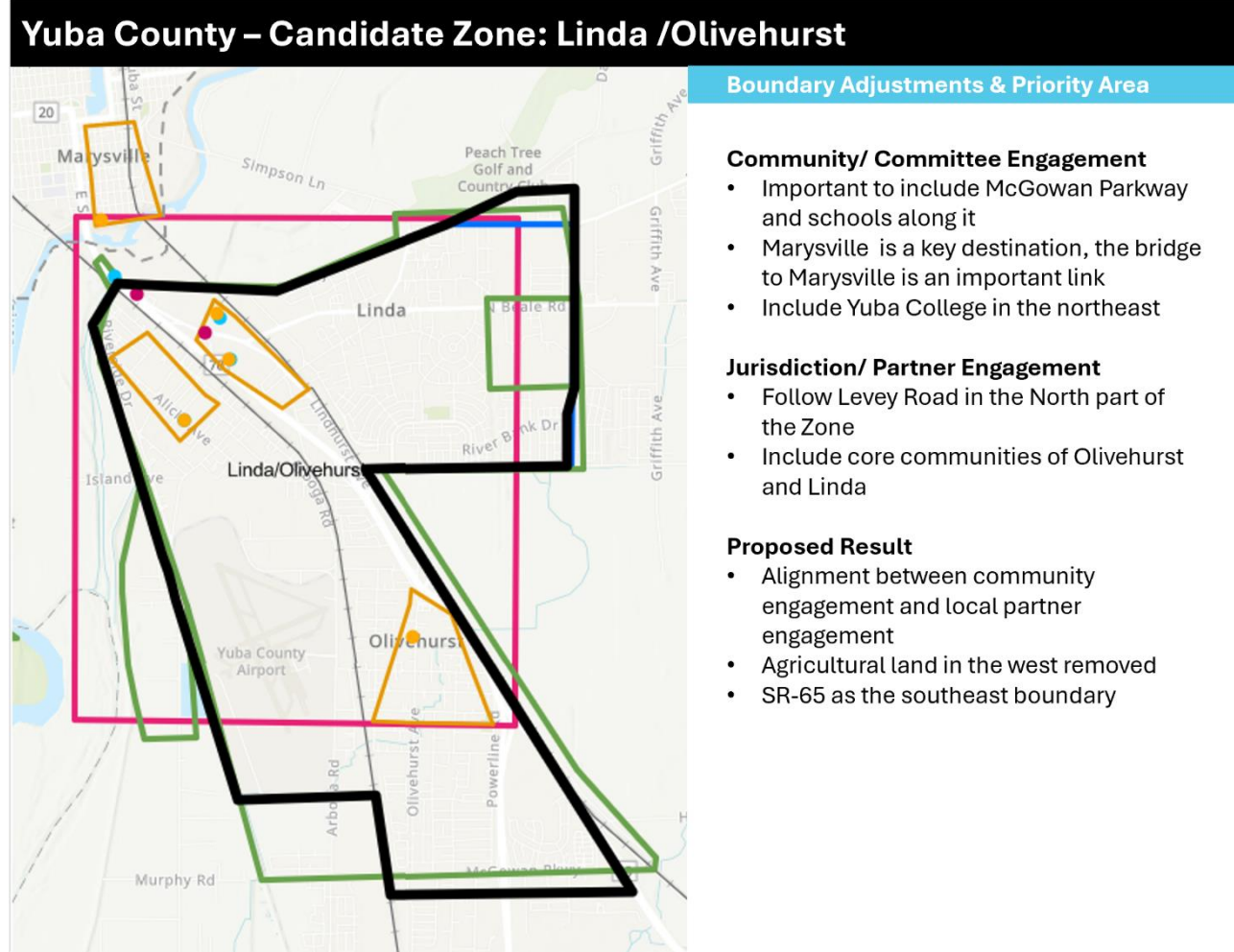


Figure 32 South Yuba City Boundary

