BEFORE THE BOARD OF SUPERVISORS
OF THE COUNTY OF YUBA

RESOLUTION RECOGNIZING THE YUBA-SUTTER BICYCLE IMPLEMENTATION PLAN AS A REGIONAL GUIDE FOR ACTIVE TRANSPORTATION FUNDING AND IMPLEMENTATION

RESOLUTION NO. 2025-059

WHEREAS, the Yuba-Sutter Bicycle Implementation Plan (the "Plan"), developed in collaboration with Alta Planning + Design and the Blue Zones Project Yuba-Sutter (BZP), provides a comprehensive framework for expanding safe, equitable, and connected bicycle infrastructure across Yuba and Sutter Counties; and

WHEREAS, the Plan identifies critical gaps in the regional bicycle network, prioritizes quick-build projects such as protected bike lanes (Class IV), bicycle boulevards (Class III), and levee path enhancements, and emphasizes cost-effective strategies to improve mobility for residents of all ages and abilities; and

WHEREAS, the Plan was informed by extensive stakeholder engagement, including interviews with the Built Environment Committee, public works directors, advocates, and community leaders, ensuring alignment with local priorities and state/federal grant criteria; and

WHEREAS, collaborative regional projects are essential to competing for competitive transportation grants, including those administered by the Sacramento Area Council of Governments (SACOG), the State of California through its Active Transportation Program (ATP), and the U.S. government through its Infrastructure Investment and Jobs Act (IIJA), among many other funding programs; and

WHEREAS, SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy prioritizes regional collaboration, greenhouse gas reduction, and active transportation investments, which the Plan directly supports through its focus on connectivity, safety, and multimodal access;

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Yuba hereby proclaims the following:

1. Formal Recognition: The Yuba-Sutter Bicycle Implementation Plan is hereby endorsed as a guiding document for prioritizing active transportation projects, securing funding, and advancing regional collaboration.

2. Commitment to Implementation: Yuba County will strive to utilize the Plan's quick-build project designs, wayfinding strategies, and equity-focused metrics, such as the Healthy Places Index, in future funding applications and capital improvement programs.
3. Collaborative Grant Pursuit: When appropriate, Yuba County will prioritize joint applications with Sutter County for grants that support Plan-aligned projects, emphasizing SACOG's scoring priorities such as safety, equity, and connectivity, and leveraging the Plan's data-driven analysis of community needs.
4. Interagency Coordination: County staff shall collaborate with Sutter County staff to integrate the Plan into updates of the Metropolitan Transportation Plan/Sustainable Communities Strategy, and other SACOG-led initiatives to strengthen funding eligibility.

PASSED AND ADOPTED this 26 day of August 2025, by the Board of Supervisors of the County of Yuba, by the following vote:

AYES: Supervisors Vasquez, House, Bradford, Messick

NOES: Supervisor Fuhrer

ABSENT: None

ABSTAIN: None

Chair, Gary Bradford

ATTEST: MARY PASILLAS
Clerk of the Board of Supervisors

Esmeralda Garcia, Board Clerk

APPROVED AS TO FORM:
JANET BENDER, COUNTY COUNSEL

Yuba-Sutter Blue Zones

Yuba-Sutter Bicycle Implementation Report

March 2023

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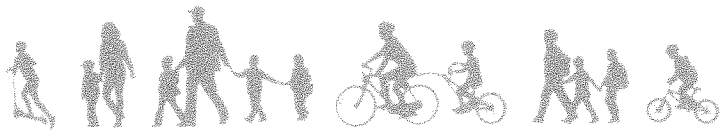

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Chapter 1. Engagement & Existing Conditions Review

This *Yuba-Sutter Bicycle Implementation Report* is intended to support short and long-range planning and project implementation to further achieve goals identified by the Yuba-Sutter Blue Zones committees. The report includes an overview of the project, overarching findings from interviews and plan reviews conducted, and potential improvements. These include concepts for short-, mid-, and long-term improvements to select roadways throughout the area in addition to encouragement and engagement programs to increase bicycling knowledge and awareness throughout the community.

Alta Planning + Design reviewed past planning documents and conducted stakeholder interviews with members of the Yuba-Sutter Blue Zones Built Environment Committee throughout the fall and winter of 2022. This process provided overall perspective and understanding of the history of bicycle planning and implementation in the Yuba-Sutter area over the past three decades. A summary of the overall findings from those efforts is included in this chapter with additional materials included in **Appendix A**.

Planning Document Review

Alta reviewed relevant planning documents from the City of Yuba City, City of Marysville, Yuba County, and Sutter County for greater context regarding bicycling conditions in the area since 1995.

Local

- *Yuba City Bicycle Master Plan* (2011)
- *City of Marysville Bicycle & Pedestrian Plan* (2016)

County

- *Yuba County Bikeway Master Plan Update* (2012)
- *County of Sutter Pedestrian & Bicycle Master Plan* (2012)

State/Regional

- *Caltrans District 3 Active Transportation Plan* (2022)
- Regional Trails Network Plan materials (2022)
- *Feather River Air Quality Management District – Yuba-Sutter Bikeway Master Plan* (1995)

While reviewing these documents, special attention was paid to the completed surveys and outreach efforts conducted for each plan. From the City of Marysville, City of Yuba City, Sutter County, and Yuba County plans, outreach efforts highlighted the lack of bicycle facilities, poor road conditions, high traffic speeds, and a lack of a connected network being the leading reasons for not riding a bicycle in the community.

Recommended projects from previous plans were also reviewed and were used as a basis for recommendations in later chapters of this document.

Built Environment Committee Interviews

In support of this *Yuba-Sutter Bicycle Implementation Report*, Cole Peiffer conducted interviews with eight members of the Blue Zones Built Environment Committee regarding their perspective on bicycling within the region, existing challenges, and ongoing efforts to expand bicycling in the area. Each interview was scheduled for one hour and generally followed a series of questions based on the objective of 'improving bike connectivity to create regional opportunities for natural movement' identified by the Blue Zones Project Yuba-Sutter. The following interviews were completed in support of this task:

- Diana Langley, City Manager, City of Yuba City (12/1/2022)
- Mike Lee, Public Works Director, Yuba County (12/1/2022)
- Ben Deal, Yuba Area Bicycle Advocates (YABA) Founder, YABA (12/2/2022)
- Kristina Heredia, Assistant Community Development Director, City of Marysville (12/5/2022)
- Neal Hay, Public Works Director, Sutter County (12/5/2022)
- Bill Evans, Avid Cyclist and Committee Member, Yuba City Bike Committee (12/6/2022)
- Steve Kroeger, Executive Director, Blue Zones Yuba-Sutter (12/6/2022)
- Bob Ekardt, Director of Community Partnerships, Marysville Joint Unified School District (12/13/2022)

The following overarching themes emerged from the completed stakeholder interviews. A more detailed summary is included in **Appendix A**.

- There is a strong desire to pilot high-quality bicycle facility designs (Separated Bikeways – "Class IV" or Shared-Use Paths – "Class I") in the urban areas for utilitarian trips.
- The major barrier to implementation of high-quality facility design from an agency perspective is the limited existing right-of-way and funding.
- The "Bike Buses" concept presents an opportunity to encourage both adult and youth bicycling. This concept is similar to a "Walking School Bus" where parents will walk with students on their way to school but instead of walking: biking is the preferred mode.
- Wayfinding signage is currently sparse across the region.
- Bike-share programs have been considered only at a high level and are not seen as critical in the short term.
- Parking requirements (bicycle and vehicle parking) present opportunities for reducing development costs and expanding bicycle parking options.

Workshop & Bicycle Tour

On January 27, 2023, Blue Zones hosted a bicycle tour and planning workshop between Cole Peiffer and the Built Environment Committee members. The tour reviewed a potential key route connecting Marysville to the Sutter Buttes and provided significant context to inform project recommendations. The workshop was focused on a high-level review of potential improvements for the area to increase the bicycle mode share over the next five years and support the overarching Blue Zones goals.

Chapter 2. Connecting Marysville to the Buttes

The Yuba-Sutter area benefits from the majestic Sutter Buttes which are located within a short distance from Yuba City and Marysville[1]. This mountain range is a frequent destination for recreational cyclists and is often reached by bike. Additionally, the communities of Yuba City and Sutter are linked through an existing Shared-Use Path, situated within an old railroad grade: the Yuba-Sutter Bike Path. This car-free connection creates a comfortable and low-stress environment for bicyclists of any age. The existing high level of bicycle use presents an opportunity for Blue Zones and the greater community to expand the bicycle network and increase access to this great community asset.

Quick-Build Projects

A quick-build project is an important opportunity to provide residents with a sense of the potential changes to a roadway. Quick-build projects are short-term infrastructure improvements that remain in place between one and five years and that are constructed with semipermanent materials such as traffic delineators, jersey barriers, or raised lane separators. This differs from a 'Demonstration Project' which has a shorter duration (1 day – 1 week) and uses lower-cost and more temporary materials; quick-build projects also typically have longer project limits than demonstration projects but require more planning, engineering, and coordination. Using low-cost and removable materials reduces total costs and allows for easy adjustments to the design throughout the duration of the project; more information on these materials is available through numerous resources including the *California Bicycle Coalition*'s *Quick-Build Guide* (2020). Final materials used and total extent of quick-build projects will determine the ultimate cost for installation and maintenance. It is recommended that agencies utilize materials which allow for an increased level of separation between vehicles and bicyclists while allowing for installation of a large enough section for the demonstration or quick-build projects. Local agency stakeholder guidance on the preferred traffic diversion and delineation markings is needed to further refine project concepts.

Recommended Quick-Build Route

To attract the greatest number of residents to use a bicycle, the Yuba-Sutter Bike Path should be leveraged as a significant source of bicycle activity. Alta identified the proposed route connecting Yuba College with the Sutter community using the Yuba-Sutter Bike Path and available roadway widths (**Map 1**) based on the review of past plans, tour of local bicycle network, and collaboration with Built Environment Committee members. The proposed quick-build projects allow for rapid installation along existing roadways and provide an enhancement to many existing facilities. **Table 1** presents the overall quick-build projects concept, with a description of recommendations for each roadway extent. A high-level concept for various sections is included in **Appendix B**. It is important to note that the project limit could be adjusted in the future to incorporate a planned connection with the Yuba City Bike Park between Hooper Road and Harter Parkway.

[1] *Approximately 15-20 miles*

Table 1. Quick-Build Projects Concept

Roadway	Recommendation Description	Extent	Miles
Hooper Road	Build a quick-build separated bikeway (Class IV)	Yuba-Sutter Bike Path to Butte House Road	0.5
Butte House Road	Build a quick-build separated bikeway (Class IV)	Hooper Road to Blevin Road	1.2
Blevin Road	Build a quick-build separated bikeway (Class IV)	Butte House Road to Queens Avenue	0.15
Queens Avenue	Build a quick-build separated bikeway (Class IV)	Blevin Road to Live Oak Boulevard	2.10
Queens Avenue/ Market Street	Build a quick-build separated bikeway or buffered bike lane (Class IIB/IV)	Live Oak Boulevard to Lynn Way	0.50
Lynn Way	Add shared lane markings in either direction (Class III)	Market Street to Levee	0.10
Feather River Levee (Yuba City)	Upgrade bollard paint and gate access	Lynn Way to Twin Cities Memorial Bridge	1.25
5th Street	Improve bicycle and pedestrian wayfinding to indicate turn at Olive Street	Twin Cities Memorial Bridge to Olive Street	0.25
Olive Street	Improve bicycle and pedestrian wayfinding to indicate turn at 5th and 6th Streets	6th Street to 5th Street	0.1
6th Street	Install Bicycle Boulevard (Class III) – reduce corner radii at intersections, add sharrows with green backing, add speed cushions, enhance crosswalk striping	Yuba Street to Olive Street	1.1
Yuba Street	Install buffered bicycle lanes (Class IIB)	10th Street to 6th Street	0.4
10th Street	Install separated bikeway or buffered bicycle lanes (Class IIB/IV)	Yuba Street to Ramirez Street	0.1
Simpson Street	Install separated bikeway or buffered bicycle lanes (Class IIB/IV)	10th Street to Linda Avenue	3.0
Linda Avenue	Enhance bike lanes to be buffered bike lanes (Class II/IIB)	Beale Road to Hammonton Smartsville Road	1.0
5th Street	Sweep the Twin Cities Memorial Bridge	Twin Cities Memorial Bridge	0.5
Total Miles:			**12.25**

This 12-mile network would help connect Yuba College, Marysville, Yuba City, and the Sutter Buttes with a moderately low-stress facility for the majority of the route and address the leading issue preventing Yuba-Sutter residents from bicycling more: a lack of safe and comfortable facilities. This proposed project includes numerous roadways with a variety of traffic operational conditions, which will require an engineering analysis and design, in addition to public engagement. These steps are further detailed in the implementation 'Action Steps' identified below.

Implementation

Implementing this regional bicycle route will require focused coordination and collaboration between regional agencies, local advocacy groups, and other stakeholders including the Blue Zones group. Quickly constructing facilities is not typically done by most agencies and requires a process that leverages the right resources and secures buy-in from the right people and decision-makers. The project may be implemented in a variety of steps and in various sections based on available funding and organizational bandwidth; implementation of short-term projects is often outside of the typical day to day of local agency staff and available staff time to provide significant support is likely limited. Typically, quick-build and demonstration projects are initiated by local or regional agencies, rather than spearheaded by organizations within the community. The steps to take for implementation are unique to the Yuba-Sutter area, there is no one-size fits all.

Chapter 4 of the *Quick Build Guide* from the California Bicycle Coalition identifies typical steps in helping get the right people at the table and move quick-build projects forward together. The section below applies these steps to the Yuba-Sutter context and identifies action steps for Blue Zones and their local agency partners. Some steps have already been largely accomplished with others needing more regional collaboration between agencies. Steps are detailed below and displayed graphically in **Figure 1**.

1. Assemble Administrative Team

An administrative team focuses on the implementation of the project and will act as conveners throughout the process. This is the first step in the process in order to get everyone in the same room and on the same page about project goals and available resources. In the Yuba-Sutter context, this team is currently best represented by the agencies on the Built-Environment Committee but may be well served with additional members. The following is a list of typical members of a Quick-Build project administrative team:

- Key Coordinator
- Communications
- Transportation Planners
- Transportation Engineers
- **Representatives from other departments that interface with the project**
- Neighborhood or Community Ambassador or Champion
- **Local Business Leaders**
- Representatives from Community Organizations (especially bicycle advocacy organizations)
- **Elected Officials**

ACTION STEP 1 – FINALIZE ADMINISTRATIVE TEAM: Blue Zones and the full BEC group is encouraged to identify the people "missing" from the table or who may help add a unique and needed perspective to the conversation. The people highlighted in Bold are noted as important community members to consider including in the Quick-Build project moving forward.

ACTION STEP 2 – IDENTIFY GOALS: Once the Administrative team is solidified, the team should work to identify goals of the quick-build project specifically and strategies for communicating those goals and the purpose of the project to the community.

ACTION STEP 3 – EVALUATE RESOURCES: In order to support implementation, each local agency should review their existing budgets to identify existing contracts and resources which may support this project. This includes existing on-call contracts, planned maintenance projects, and available funding streams. The availability of funding and resources will help refine the needed approach for funding for short-term and longer-term implementation strategies.

2. Decide Where (and what) To Build – Demonstration(s)

Quick-Build guidance from California Bike Coalition identifies the "Decide Where to Build" step following the creation of the Administrative Team, establishment of project goals, and evaluation of available resources. The *Yuba-Sutter Bicycle Implementation* Report takes the initial step of identifying a concept of where and what to build on a specific and focused route however, this concept will need to be refined and further developed prior to project implementation. This presents a good opportunity to involve the community to evaluate the proposed project concept and provide feedback as to how they would like to see it designed; this process can help identify more focused improvements for specific intersections along the route like curb extensions or corridor buffer treatments. Involving the community in the design of a demonstration project helps create community support and buy-in with the project concept. This can take the form of focused community meetings along the project corridor or an interactive map and survey for community members to voice their opinions. Additionally, the demonstration project may be augmented by temporary outreach activities / installations such as mile markers to track total distance along the path, bicycle fix-it stations, or wayfinding signage to provide a unified aesthetic throughout the demonstration project.

ACTION STEP 4 – PROJECT COST ESTIMATE: A project cost estimate divided into logical segments should be developed to provide a range of costs highlighting costs for using demonstration project materials compared to quick-build project materials. This cost estimate will help inform community involvement and eventually grant application(s).

ACTION STEP 5 – DEMONSTRATION PROJECTS: With logistical support from Blue Zones, the Cities develop and implement short-term demonstration projects of the project concepts in small segments of the route.

ACTION STEP 6 – COMMUNITY INVOLVEMENT: Create community involvement opportunities such as public meeting(s) and interactive survey / map to provide input on quick-build concept.

Suggested Projects:

- Butte House Road – Hooper Road to Blevin Road
- 6th Street – Yuba Street to Olive Street
- Simpson Lane – 10th Street to Linda Ave

3. Continually Engage the Community

Both quick-build and demonstration projects provide unique opportunities to engage with the public in a very focused way. These project types have highly accelerated timelines which make timely engagement critical to success. In order to gain lessons learned and support grant applications there should be extensive outreach to residents before, during, and after any demonstration project. The most cost-effective approach may be providing a QR-enabled postcard to residents within a ½ mile of the demonstration project which connects

them to an online survey about the project concept and asks for their feedback. Furthermore, a targeted community meeting may also help used to engage with the community. The *Quick Build Guide* includes multiple case studies which highlight best practices for ongoing engagement with the community before, during, and after the project implementation.

> **ACTION STEP 7 – TARGETED COMMUNITY ENGAGEMENT:** Provide targeted opportunities for the public to provide feedback on demonstration projects and quick build projects. Insights drawn from demonstration projects may be used to support a grant application for a larger Quick-Build project.

4. Decide Where (and what) To Build – Quick-Build Project

A Quick-Build project is likely to require substantial supplementary funding for implementation. In order to be best positioned for competitive grant funding, gathering data and lessons learned during the Demonstration Project implementation will be critical in order to augment any developed grant application. Future grant applications may be for implementation of the full project concept or specific segments based on agency involvement. It is important to note that applications which represent regional efforts are encouraged through SACOG and Caltrans. It is recommended that a regional application for the full quick-build project be developed and submitted for funding following successful demonstration project(s) in each community.

It is important to note that outreach activities & active transportation supportive installations including mile markers, bicycle fix-it stations, wayfinding signage, and Google Map linkages will be important aspects of attracting residents to use the completed project once it's implemented.

> **ACTION STEP 8 – PROJECT QUICK-BUILD DESIGN:** Community input and agency guidance should be incorporated into the quick-build project concept. This concept should be developed into a grant application based on the size, scale, and scope of the identified quick-build project. Upon receipt of grant funding, the project will be developed into a set of engineering design plans which adhere to the CA-MUTCD for implementation and finally constructed.

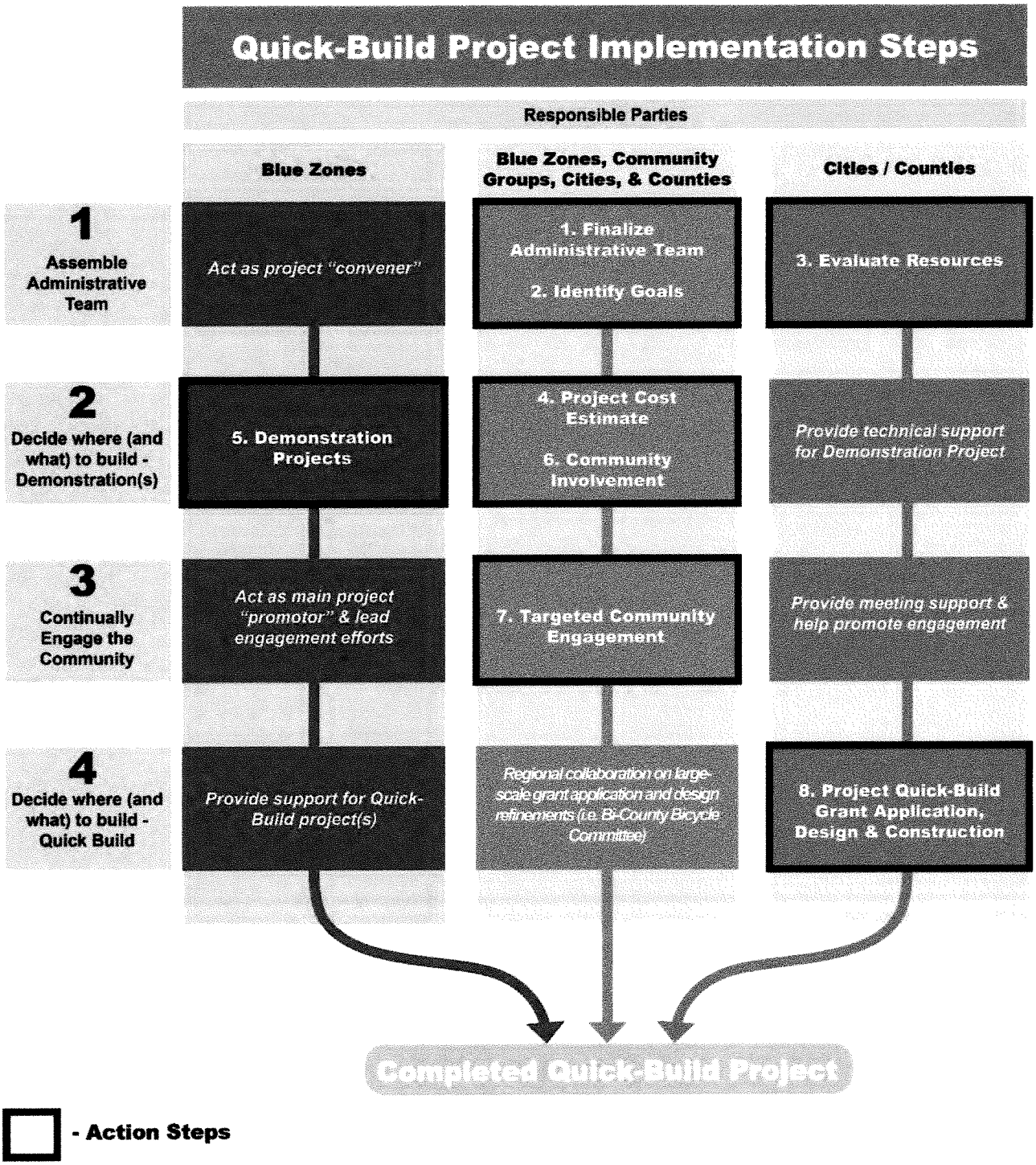


Figure 1. Quick Build Project Implementation Steps

Funding Options

The public agency members of the BEC (Yuba County, Sutter County, Yuba City, and City of Marysville) should conduct a review of existing funding sources to identify existing contracts and projects which may help support implementation of the quick-build project. This includes existing on-call contracts which may be used to develop concept plans / engineering designs as well as planned maintenance projects which may be adjusted to provide a semi-permanent installation. In addition to these existing resources, the following potential funding options for a quick-build projects include:

- The Mode Shift Grant Program from Sacramento Area Council of Governments (SACOG) provides grant funding for quick-build projects with grant awards between $25,000 and $250,000. This grant program has zero required matching funds. Applications for the next round of funding are anticipated to be due in fall 2023. Additionally, the Engage, Empower, Implement (EEI) program under development by SACOG may provide funding opportunities for quick-build projects.
- California's Active Transportation Program (ATP) Quick-Build program provides funding for quick-build projects. The ATP Cycle 7 is anticipated to have applications due in the summer of 2024.
- Local and regional funds such as general fund, sales tax revenue, and Air Quality District funds provide strong flexibility for funding quick-build improvements.

Funding for demonstration projects could include the following options:

- PeopleForBikes provides a small grant to support infrastructure projects. Grants provide up to $10,000 in funding; this organization will not consider applications where the grant funding would account for more than 50% of the project. The next grant cycle is anticipated to be open in early fall 2023.
- AARP provides grant funding for communities through their Community Challenge. The average grant award under this program is nearly $12,000, and applications for this annual grant program are typically due in March with funding being awarded in June.

Table 2. Demonstration / Quick Build Project Grant Funding Options

Project Type	Demonstration / Quick Build Project Funding Options			
	Grant	*Funding Source*	*Anticipated Application Deadline*	*Typical Grant Award*
Demonstration	Small Community Grant	PeopleForBikes	August-September 2023	$10,000 (maximum)
	Community Challenge Grant	AARP	March 2024	$12,000 (average)
Quick-Build	Mode Shift Grant Program	SACOG	August-September 2023	$25,000 - $250,000
	Active Transportation Program (ATP) - Quick Build Program	Caltrans	June 2024	$400,000 (Cycle 5 Average)

While local agency funding remains an option for project funding these funds are scarce and typically programmed for existing efforts. Additionally, local fuel tax or other funding sources may be most appropriate for a quick-build project rather than demonstration projects based on administrative requirements and needed implementation speed for demonstration projects. Blue Zones and other community organizations may be best suited to lead the implementation of Demonstration Projects while supporting longer-term efforts from agencies to 1) pursue grant funding, 2) engage with the public before, during, and after demonstration project(s), and 3) implement the quick-build version of the project.

POTENTIAL NETWORK ENHANCEMENTS

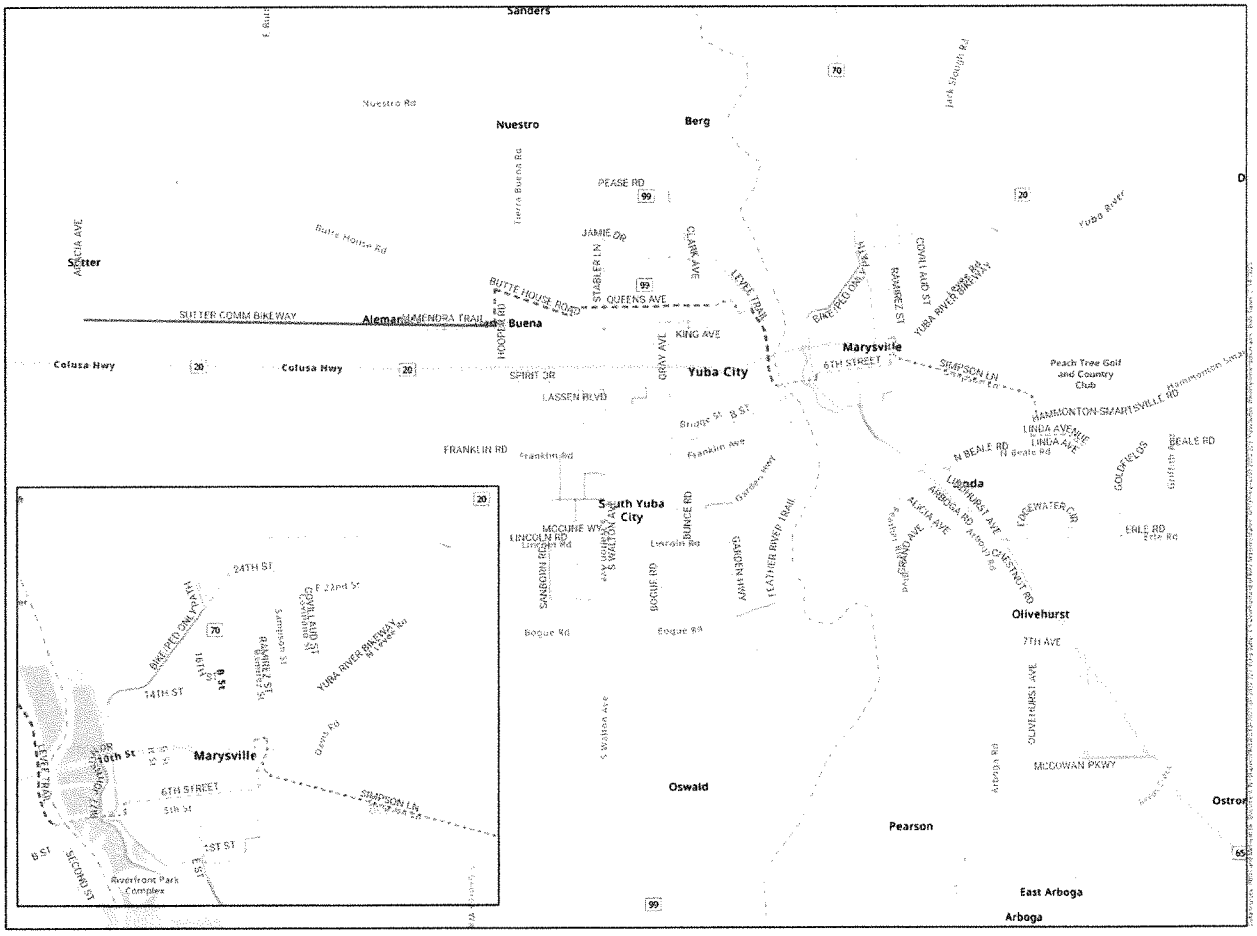
YUBA-SUTTER BIKE IMPLEMENTATION REPORT

Yuba-Sutter Bike Path

Quick-Build Projects

Conceptual Facility Types / Improvements

- Buffered Bike Lane (Class IIB)
- Buffered Bike Lane / Protected Bike Lane (Class IIB/Class IV)
- Bicycle Boulevard (Class III)
- Separated Bike Lane (Class IV)
- Wayfinding Enhancements
- Levee Path Enhancements
- Bridge Trail Sweeping



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Chapter 3. Building the Network

To further achieve the goals that Blue Zones has set forth in the transportation space, it will be necessary to expand the bicycle network so that a greater number of destinations—like work, school, and childcare—are accessible with a comfortable and low-stress bicycle ride for more residents. Based on completed interviews, previously reviewed plans, and an in-person tour of the local network, the lack of separated and protected bicycle lanes on high-traffic and high-speed roadways is the leading and most important issue preventing residents from bicycling more frequently.

The combination of the Yuba-Sutter Bike Path and the quick-build projects will create a strong east-west spine from which a network can grow. Forming a network of low-stress bicycle facilities, such as that shown in **Map 2**, will allow more people to access the path on their bike, which may reduce vehicle usage, encourage new users to ride, and add safety improvements at intersections and in front of schools. Potential network recommendations are presented in **Table 2** and highlighted in **Map 2**. Recommendations are intended to provide guidance on potential projects for local implementation and regional collaboration.

Table 3. Network Recommendations

Roadway	Recommendation	Extent	Miles
Queens Avenue	Make quick-build project permanent (Class IV)	Feather River to Hooper Avenue	4.25
S Walton Road	All ages and abilities facility (Class IV)	Bogue Road to Bridge Street	3.1
Stabler Lane	Widen existing bike lane/add Buffer (Class II/IIB)	Queens Avenue to Bridge Street	1.7
Stabler Lane	Remove parking on alternating sides (Class IIB/VI)	Tres Picos Drive to Queens Avenue	1.1
H Street	Bicycle boulevard (Class III)	Motor Park to 3rd Street	1.1
6th Street	Extension and permanent installation of the 6th Street quick-build project (Class III)	Yuba Street to J Street	1.0
Yuba Street	Bicycle boulevard (Class III)	6th Street to 17th Street	0.4
17th Street/ Chestnut Street	Provide bicycle connection to high school with bike lanes (Class II)	Yuba Street to 18th Street	0.3
16th Street/ Huston Street	Bicycle boulevard (Class III)	Yuba Street to Toddwick Avenue	2.0
Rideout Way	Bicycle boulevard (Class III)	Glen Street to Ramirez Street	1.3
Simpson Lane	Consider permanent separated bikeway (Class IV) installation	Hammonton Smartsville Rd to Yuba Street	2.4

Roadway	Recommendation	Extent	Miles
Linda Avenue	Enhance bike lane to be 6 feet throughout (Class II)	N Beale Road to Hammonton Smartsville Road	1.0
Ramirez Street	Reutilize space for parking protected bike lane (Class IV)	E 24th Street to Simpson Lane	1.5
Butte House Road	Consider reutilizing excess roadway capacity and consider lane reduction (Class IV)	Gray Avenue to N Township Road	4.3
8th Street	Bicycle boulevard (Class III) with intersection bulb-outs, shared lane markings, vertical traffic calming elements, raised crosswalks at F Street, G Street	J Street to B Street	0.8
J Street	Bicycle boulevard (Class III) with intersection bulb-outs, shared lane markings, vertical traffic calming elements, raised crosswalks at F Street, G Street	6th Street to 8th Street	0.2
B Street	Parking protected bike lanes (Class IV)	8th Street to 3rd Street	0.5
Total Miles:			**26.95**

POTENTIAL NETWORK ENHANCEMENTS

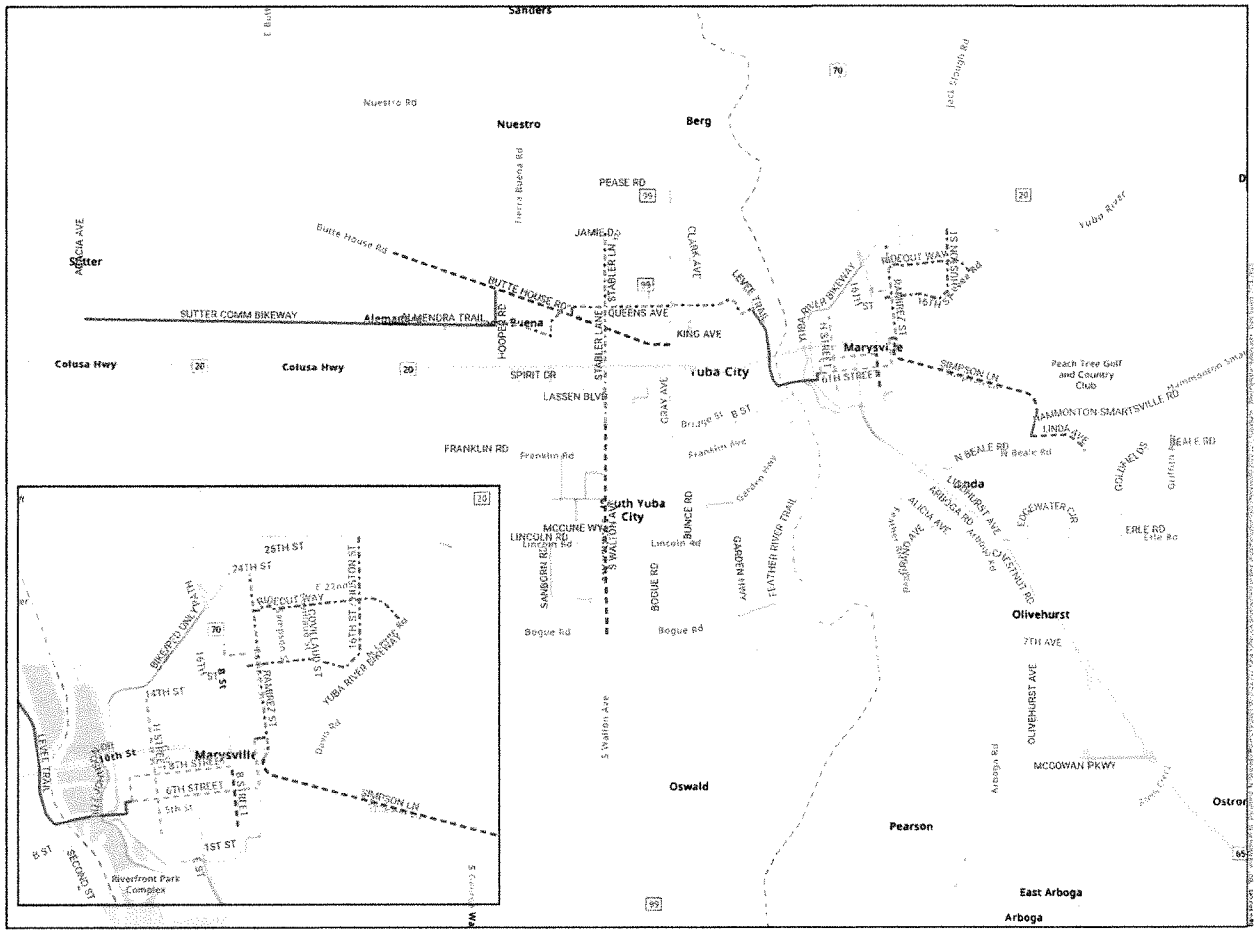
YUBA-SUTTER BIKE IMPLEMENTATION REPORT

- Yuba-Sutter Bike Path

Yuba Sutter Improvements Short-Term

Potential Facility Type

- Shared-Use Path / Protected Bike Lane (ClassI/IV)
- Bike Lane (Class II)
- Buffered Bike Lane (Class IIB)
- Buffered Bike Lane / Protected Bike Lane (Class IIB/IV)
- Bicycle Boulevard (Class III)
- Neighborhood Greenway (Class IIIB)
- Separated Bikeway (Class IV)
- Prior Phase Recommendation



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Chapter 4. Engaging with Regional Partners

Collaborating with regional and state partners can provide a significant benefit when competing for limited grant funding and bringing large-scale projects to fruition. Different roadway ownership boundaries may be invisible to users of the transportation system, but they are clear markers to those in the transportation industry that some roadways will take longer to improve than others. Caltrans roadways like Highways 20, 70, and 99 that cut across Marysville and Yuba City act as some of the largest barriers to bicycle travel in the area besides the Feather River. Providing safe crossings across these large roadways or creating improved connections for bicyclists along the corridors will require close collaboration with Caltrans District 3 staff.

Caltrans *Active Transportation Plan* (2022)

The 2022 Caltrans District 3 *Active Transportation Plan* reviewed conditions for walking and biking across the district including within Yuba and Sutter Counties. The plan reviewed the potential for walking and biking short trips, collision histories for bicyclists and pedestrians, and synthesized public comments to identify state routes with the greatest potential to improve quality of life, safety, and greenhouse gas emissions. Using this methodology, the plan identified sections of Highways 20, 70, and 99 within the City of Yuba City and the City of Marysville as having "High" potential for capturing bicycle trips compared to other roadway sections throughout the district (**Figure 1**); due in part to the "High" density of bicycle trips in the area (**Figure 3**).

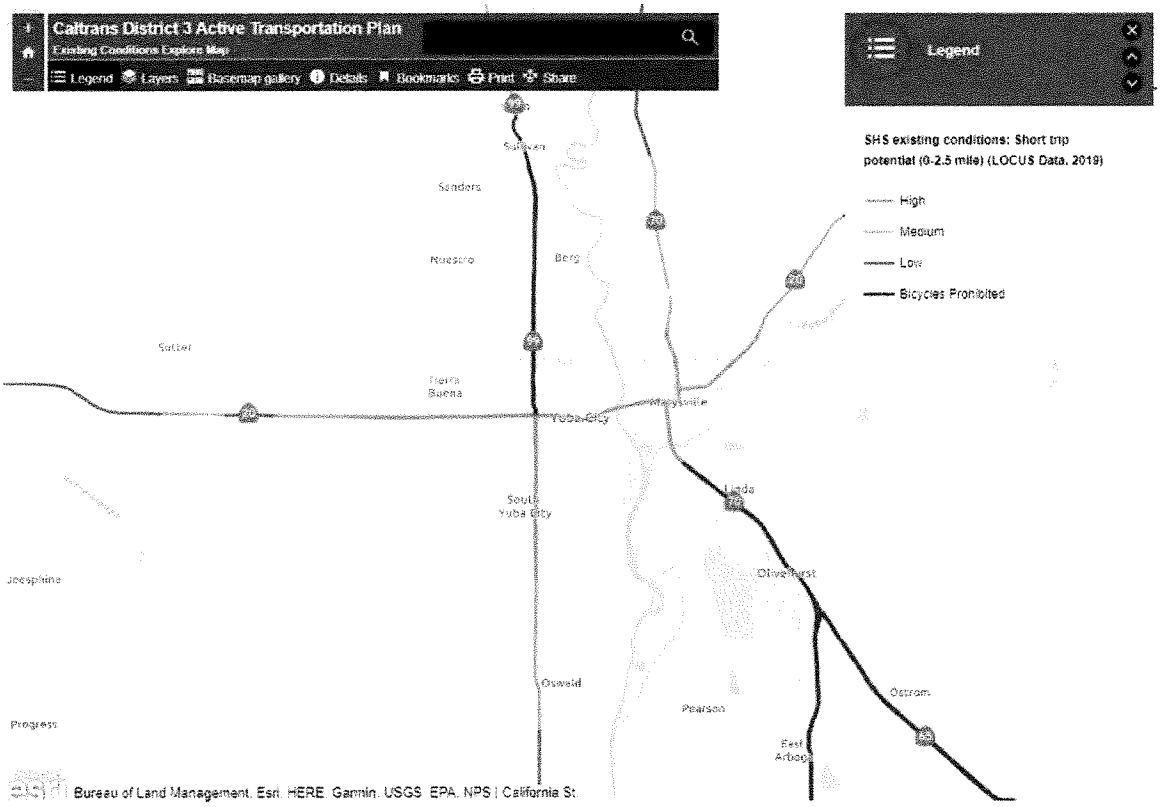

Figure 2. Caltrans District 3 Active Transportation Plan – *Short-Bicycle Trip Potential*

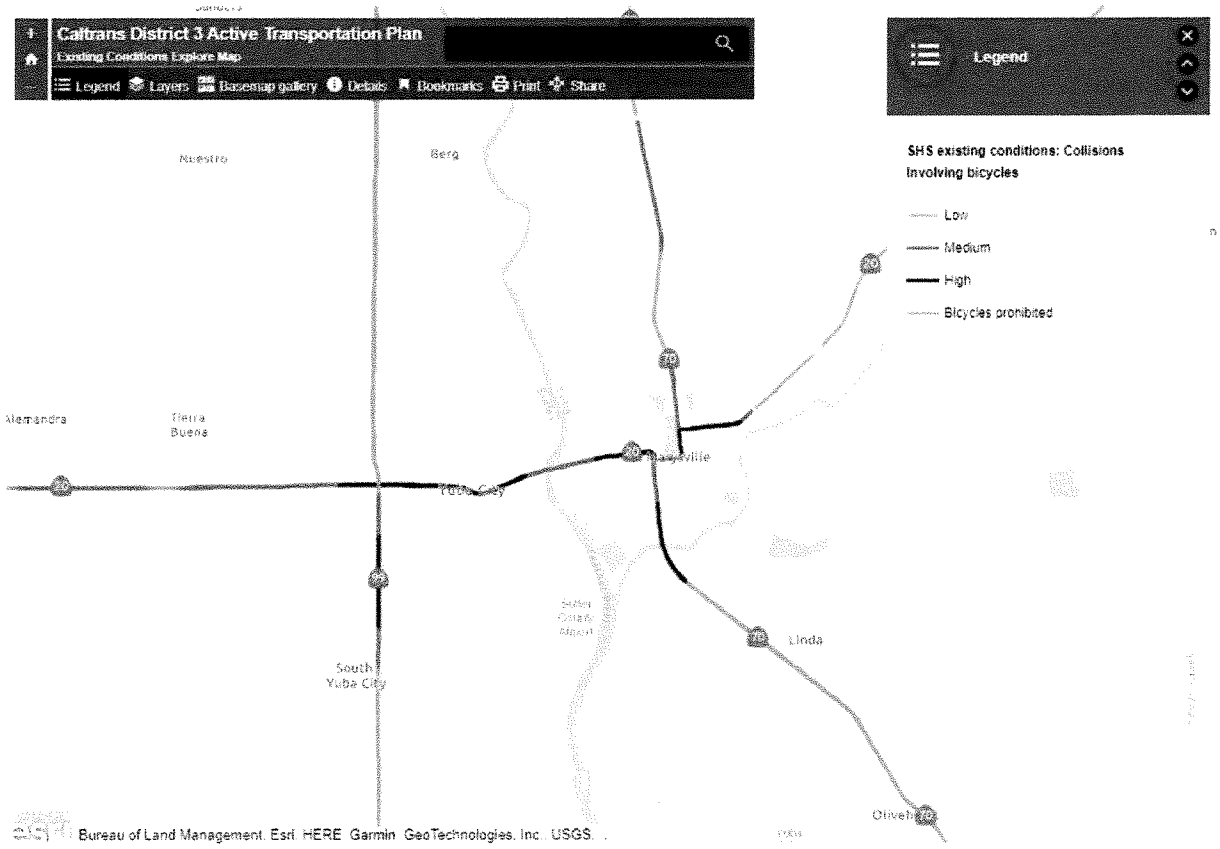

Figure 3. Caltrans District 3 Active Transportation Plan – *Bicycle Collisions*

The Caltrans *Active Transportation Plan* synthesizes analysis metrics together in order to prioritize roadways within each district for intervention and improvements for bicycles and pedestrians. Based on this process, major sections of Highways 20, 70, and 99 within the City of Yuba City and the City of Marysville were identified as Tier 1 projects, which represent roadways with the most urgent safety and connectivity needs across the district (**Figure 3**).

To address these challenging roadways, agencies from the Yuba-Sutter area must collaborate directly with Caltrans. Caltrans districts are encouraged to play a key role in achieving the goals and objectives of *Toward an Active California: State Bicycle and Pedestrian Plan*. Specifically, districts are encouraged to "explore opportunities to partner with local agencies and organizations on short-term pilot projects and events to promote walking and biking," and, "provide guidance to local agency partners on the Caltrans approval process for Complete Streets Improvements on the State Highway System."[2] While the improvement of Caltrans roadways is a long-term accomplishment, there are critical short-term actions which local agencies may be identifying and working on in the near term to support the long-term goal of improving these high-speed and high-volume roadways for people walking and biking.

[2] *Caltrans District 3* – Active Transportation Plan, *Summary Report (2022) – Page 24*

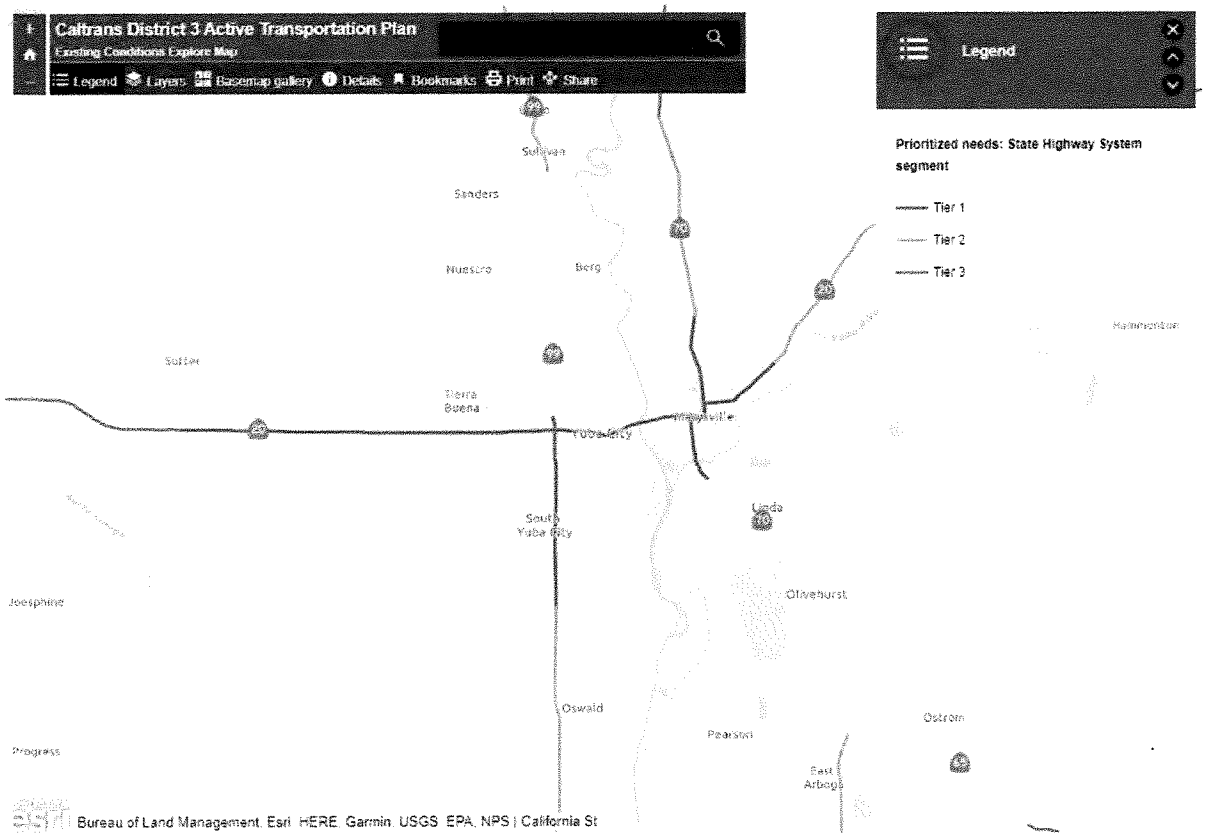

Figure 4. Caltrans District 3 - Prioritized Active Transportation Needs

SACOG Planning Grants & Assistance

The SACOG provides numerous resources to support agencies seeking grant funding including the 2023 Active Transportation Program evaluation map (available using this link). This resource includes numerous data sets that are used to quantify overall project need by Caltrans. Projects within minority or low-income disadvantaged communities receive a greater number of points during the grant evaluation process due to the conditions in the surrounding communities. This means that projects in these areas will receive more points than similar projects outside disadvantaged communities and that projects in these areas may make strong candidates for future grant applications. Yuba City and Marysville have significant portions of their jurisdictions that are designated as disadvantaged communities; Yuba County and Sutter County also have similar designations throughout their boundaries. Please see **Appendix C** for a collection of maps highlighting equity analysis metrics, crash statistics, and environmental burden metrics that could support future grant applications within the Yuba-Sutter area.

Bi-County Bicycle Committee

Bicycle advocates and people interested in improving bicycling in the area currently lack a clear path to engage in the public process and provide their voice in the effort to improve bicycling in the region. As residents throughout Yuba City, Marysville, and Yuba & Sutter Counties strive to improve bicycling conditions regionally, a Bi-County Bicycle Committee presents a strong opportunity to pool resources and provide more focused engagement with the planning process for local advocates and residents. A Bi-County Bicycle Committee which includes members of the public as well as representatives from the cities and counties to provide updates and receive feedback on projects would provide a one-stop shop for bicycle planning regionally, help promote other engagement efforts for demonstration projects, and provide some technical knowledge and local perspective of projects, programs, and initiatives from local agencies.

Chapter 5. Encouraging & Engaging the Community

To achieve large-scale and long-lasting improvements in total bicycle usage throughout the Yuba-Sutter community, it will be critical to go beyond the development of safer facilities and provide supplemental support through programs and policies which encourage and engage the community to be more comfortable riding a bike as part of their daily lives. The following includes a collection of potential policy and program improvements which are intended to support the development of the quick-build projects (Chapter 2) and expansion of the network (Chapter 3). These programs will require extensive collaboration between stakeholders and agency staff as well as additional funding through grant opportunities such as the ATP Non-Infrastructure program or the California Office of Traffic Safety (OTS).

Safe Routes to School Programs & Events

Safe routes to school (SRTS) events and programs present a strong opportunity for both children and parents to use a bicycle and become more comfortable with using a bicycle in their day to day lives. Parents who may have reservations about bicycling on their own are typically more likely to bicycle with their children than of their own accord. The following programs and policies may help augment ongoing SRTS programs in the region.

Biking Physical Education Module

Although not required by California state law as a module for physical education curriculum, the addition of a module on bicycling would expand knowledge of how to operate and maintain a bicycle for children in the area. These modules typically span across multiple days of instruction to provide a strong understanding of how to care of a bicycle and how to operate it safely; these modules provide opportunities for students to learn about bicycling both on and off a bicycle by including bicycle maintenance tips and tricks. Children would also be provided with materials about safety riding etiquette and rules of the road to keep all users safe.

This type of program can be supported with a small fleet of bicycles which can transfer from one school to the next based on module scheduling and needs. This strategy helps reduce overhead and costs to implementation.

Inclusive Promotional & Safety Materials

Expanding the understanding of safe bicycling etiquette goes beyond the children receiving the materials and extends to all members of the household who may potentially see the materials sent home with children during a SRTS event. In order to capitalize on this opportunity, it is important to provide translations in languages common to the area including Punjabi and Spanish. This may help to increase understanding of bicycle safety within the broader community.

Additionally, safety equipment such as lighting or a helmet may be provided to students as part of this program. If considering providing helmets to students, the Sikh Helmet[3] should also be considered as a supplemental option. This unique helmet design is specifically tailored to accommodate a student wearing a patka (traditional Sikh head covering worn by young males). Providing a safe helmet option for Sikh students will help encourage safe bicycle use generally.

[3] https://www.sikhhelmets.com/en-us/password

Bike Bus Program

A "Bike Bus" is an adult-led group bike ride to school which have gained popularity recently through increased national attention.[4] This concept is similar to a "Walking School Bus" where parents will walk with students on their way to school but instead of walking: biking is the preferred mode. Creating a standing group bike ride opportunity for students and parents throughout the community is a strong option for encouraging bicycling usage across the community by making it more approachable. Bike buses can range from just a few to nearly a hundred parents and students all riding together. It is important to note that Bike Bus programs may have more longevity when championed by a faculty member of the school due to student and parent turn over frequency.

Regional Electric Bicycle Subsidy Program

The California legislature passed S.B. 400 which allowed e-bikes to be included in clean air vehicle incentive programs. Set to begin in spring 2023, this program will provide a subsidy to California residents looking to purchase a new electric bicycle or electric cargo bicycle who make 400% or less of the Federal Poverty Level (FPL) with additional subsidies for those at or below 225% of the FPL. Agencies within the Yuba-Sutter region may elect to supplement this program by providing a subsidy to residents who fall outside of the requirements for the state program but who are still in need of financial support; a supplemental subsidy program could be led by a City, County, or regional council of governments. E-bike and cargo-bike subsidy programs have proven to be highly popular and present a strong option for increasing bicycling usage where implemented.

Regional Bicycling Event

Creating a large-scale regional bicycling event may present opportunities for local residents to use a bicycle outside of their daily routine and help introduce residents to the benefits of increased bicycle usage. Local agencies and stakeholders may consider spearheading a bicycle ride or event which would attract residents from across the region to participate. This type of event may take many different forms from a bicycle race such as America's Most Beautiful Bike Ride[5] to a scavenger hunt such as the Scalleycat ride in Reno, NV. These events can help highlight bicycling in the area by making the mode more prominent for a focused period and creating opportunities for locals to navigate around their City outside of a vehicle.

[4] https://www.today.com/parents/family/bike-buses-kids-school-commute-rcna51747

[5] https://www.bikethewest.com/americas-most-beautiful-bike-ride/

Chapter 6. Summary

The Yuba-Sutter region has significant opportunities for expanding the existing bicycle network and increasing overall bicycle usage in the area over the next five years. Based on the reviewed plans and completed interviews, in order to increase local bicycle usage within the area and support Blue Zones Yuba-Sutter community goals, the following initiatives or projects should be developed:

Short-Term

- Conduct public engagement process and engineering design of quick-build projects concept connecting the community of Sutter, Yuba City, Marysville, and Yuba College; see **Appendix B**.
- Collaborate with partner stakeholders such as unified school districts and parent / teacher groups to develop a Bike Bus program at interested schools.
- Engage with local school districts to include bicycling in physical education curriculum and enhance existing SRTS programs.

Medium-Term

- Develop quick-build projects on to expand the bicycling network; see Chapter 3.
- Track total usage before, during, and after all quick-build projects to evaluate the overall effectiveness and popularity of the facility and maintain momentum for future bicycle improvements.

Long-Term

- Engage with regional partners to position for and obtain grant funding for large-scale improvements.
- Partner with Caltrans to study, design, and construct bicycle and pedestrian safety improvements on Highway 20 from Marysville to Yuba City. This partnership is critical to improving major area roadways, however, this process will require a long-term and significant effort from local agency staff.

Appendix A –
Yuba-Sutter Built Environment Committee Interview Summary

MEMORANDUM

alta

To: Steve Kroeger, Executive Director, Blues Zones Project Yuba-Sutter

From: Cole Peiffer, AICP, Alta Planning + Design

Date: 1/4/2023

Re: Yuba-Sutter Blue Zones Built Environment Committee Interviews – Notes Summary

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Yuba-Sutter Built Environment Committee Interviews – Notes Summary

Introduction

In support of the Bicycle Implementation Report for Yuba Sutter, Cole Peiffer conducted interviews with eight (8) members of the Built Environment Committee regarding their perspective on bicycling within the region, existing challenges, and on-going efforts to expand bicycling in the area. Each interview was scheduled for one hour and generally followed a series of questions based on the transportation objectives for the Blue Zones Project Yuba-Sutter. This document highlights the summary of notes taken during each interview. The summary below will help guide the upcoming group call and committee workshop to identify implementation recommendations for the region.

The following interviews were completed in support of this task; compiled notes are included in **Table 1** below:

- Diana Langley, City Manager, City of Yuba City (12/1/2022)
- Mike Lee, Public Works Director, Yuba County (12/1/2022)
- Ben Deal, Yuba Area Bicycle Advocates (YABA) Founder, YABA, (12/2/2022)
- Kristina Heredia, Assistant Community Development Director, City of Marysville (12/5/2022)
- Neal Hay, Public Works Director, Sutter County (12/5/2022)
- Bill Evans, Yuba City Bike Committee, Avid Cyclist (12/6/2022)
- Steve Kroeger, Executive Director, Blue Zones Yuba Sutter (12/6/2022)
- Bob Ekardt, Director of Community Partnerships, Marysville Joint Unified School District (12/13/2022)

Preliminary Findings

Following the completed interviews, Alta compiled all interview notes into a summary table, **Table 1**, and identified the following overarching themes which were consistent across interviews. These represent the preliminary findings from this review:

- There is a strong desire to pilot high-quality bicycle facility designs (Class IV or Class I) in the urban areas, especially within the City of Yuba City, for utilitarian trips. Potentials identified by interviewees include:
    - Queens Avenue
    - Stabler Lane
    - Washington Square Park

- The major issue to implementation of high-quality facility design from an agency perspective is the limited existing Right-Of-Way (ROW) and funding.
- The "Bike Buses" concept presents an opportunity to encourage both adult and youth bicycling.
- Wayfinding signage is currently sparse across the region.
- Bike-Share programs have been considered only at a high-level and are not seen as critical in the short-term.
- Parking requirements (bicycle parking & vehicle parking) present opportunities for reducing development costs and expanding bicycle parking options

Table 1. Built Environment Committee Interview Summary Notes

Blue Zones Goal	Summarized Interview Notes
Coordinate regional bicycle plans and grant applications	• Inter-regional competition for grant funding has been typical, however, regional agencies do coordinate and are supportive of continued collaboration. Regional agencies have identified many opportunities for regional projects and seek to find ways to collaborate more often. • New momentum, including the Bi-County Bicycle Committee, offer excitement and energy for regional collaboration. • Despite interagency collaboration, it is not always obvious to outside observers and advocates.

Blue Zones Goal	Summarized Interview Notes
Fill in gaps in the bicycle network	• Major Gaps Identified by Committee Members: - Lack of Comfortable bicycle facilities (kids, seniors, unfamiliar riders) - Highway 99 & 20 - Minimal existing bicycle network - Lack of Class IV and Class I facilities - E Street Bridge - Lack of secure bicycle storage - Crossing the Feather River - Poor pavement quality - Lack of access to commercial areas - Few people ride bikes currently - Getting onto the Highway 20 Bridge (Yuba City to Marysville) • Potential Improvements Identified by Committee Members: - Queens Avenue (Yuba City) - Stabler Lane (Yuba City) - Stabler Lane / Butte House / Wabler Intersection (Yuba City) - Gray Avenue (Yuba City) - B-Street / Highway 70 Project (Marysville) - 5th Street Bridge connection (Marysville) - E Street Bridge (Marysville) - McGowan Parkway (Marysville/Yuba County) - Improvements to Levees / Sutter Bypass network (Throughout)
Improve and install wayfinding	• There is currently very little wayfinding signage for pedestrians and bicyclists within the Yuba / Sutter area outside of downtown Marysville. This presents a strong opportunity to assist people making utilitarian trips in the area.
Adopt modern Complete Streets design guidance	• There is no significant pushback to adopting modern Complete Streets design guidance. The only concerns from agency staff were related to potential ROW impacts and hesitancy to remove parking and travel lanes.
Evaluate existing ROW to accommodate bike usage	• There is a strong desire from the group to test or pilot high quality bicycle facilities for utilitarian trips including for work, school, shopping, and entertainment. For example, the group would like to test or pilot Class IV or Class I bikeways by redesigning the roadway within the existing curb to curb width. Some potential pilot projects identified by the group include: - Queens Avenue (Yuba City) - Stabler Lane (Yuba City) - Washington Square Park (Marysville)

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Blue Zones Goal	Summarized Interview Notes
Build on SRTS success	• Existing SRTS outreach efforts vary between cities and the counties. Bicycle Rodeos in the City of Yuba City were well received and have been on-going. • SRTS infrastructure projects have been successful recently and well received. There is a need for increased outreach beyond the capital safety projects that have been completed recently. • Some schools already have high walking and biking mode shares for students and are already participating in walk/bike to school events. Most schools have a bike rack for students to use but do not include bicycling as a section in the PE curriculum as it is not one of the California State standards. • "Bike Buses" have not been utilized in the area, but they present an opportunity for increased bicycling participation. • There is a need for local champions to stay engaged. Past efforts have fallen away once a parents' kids age out of the school or the family moves away.
Review Development Codes	• The City of Yuba City requires bicycle parking for new developments which appears to be sufficient. The City of Marysville does not require bicycle parking for new developments. Marysville has been installing bicycle parking in the downtown area in recent years. • For avid cyclists, bicycle parking appears to be sufficient given the low-level of existing bicycling. The larger issue preventing bicycle usage is the network rather than parking availability.
Reduce required vehicle parking	• There have been discussions in both cities to reduce or eliminate the parking minimum requirements for new developments. • The City of Marysville currently does not allow for a reduction in parking based on alternative calculation methods (*ITE Shared-Use Parking*) while City of Yuba City allows this as a variance. • More information is needed to identify whether reduced parking minimums are allowed in both Yuba and Sutter Counties.
Pilot Bike-Share programs	• Shared micro-mobility has been discussed at a high level within agencies but has not progressed further beyond a high-level concept. The primary hesitations to implementation are the prevalence of "bike/scooter clutter" and the limited existing bicycle network. • Shared micro-mobility was identified as a low-priority for the region across all interviews.

Blue Zones Goal	Summarized Interview Notes
	• Bicycling is not a major element of the Yuba-Sutter culture and some residents may be unaware of the benefits. Improved messaging around the benefits of bicycling including saving money, the environment, and the significant health benefits may help bicycling become more widely adopted.
Cultural Barriers to bike riding	• There is a large Indian-Sikh population in the area. Members of this community, especially elderly members, ride bicycles for transportation more frequently than the larger Yuba-Sutter community (typically for health benefits). Targeted messaging to this community could improve bicycle rider habits. • There was generally a sense from the interviewees that bicyclists and motorists are respectful towards each other, however, some interviewees did highlight that there are bad actors in both modal groups.

Appendix B – Quick-Build Project Typical Cross-Sections

POTENTIAL NETWORK ENHANCEMENTS

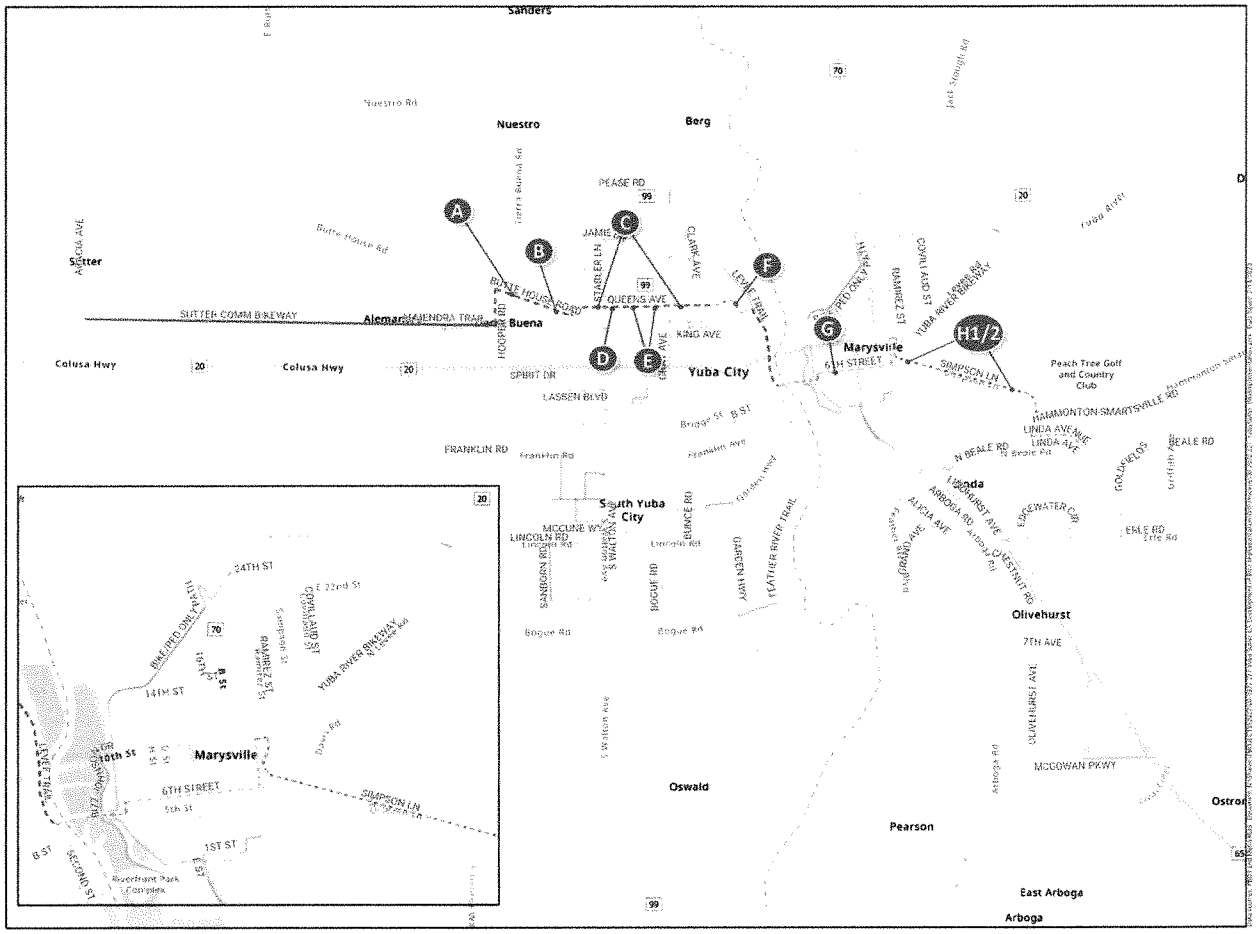
YUBA-SUTTER BIKE IMPLEMENTATION REPORT

— Yuba-Sutter Bike Path

Quick-Build Projects

Conceptual Facility Types / Improvements

- Buffered Bike Lane (Class IIB)
- Buffered Bike Lane / Protected Bike Lane (Class IIB/Class IV)
- Bicycle Boulevard (Class III)
- Separated Bike Lane (Class IV)
- Wayfinding Enhancements
- Levee Path Enhancements
- Bridge Trail Sweeping



0 1 2 MILES

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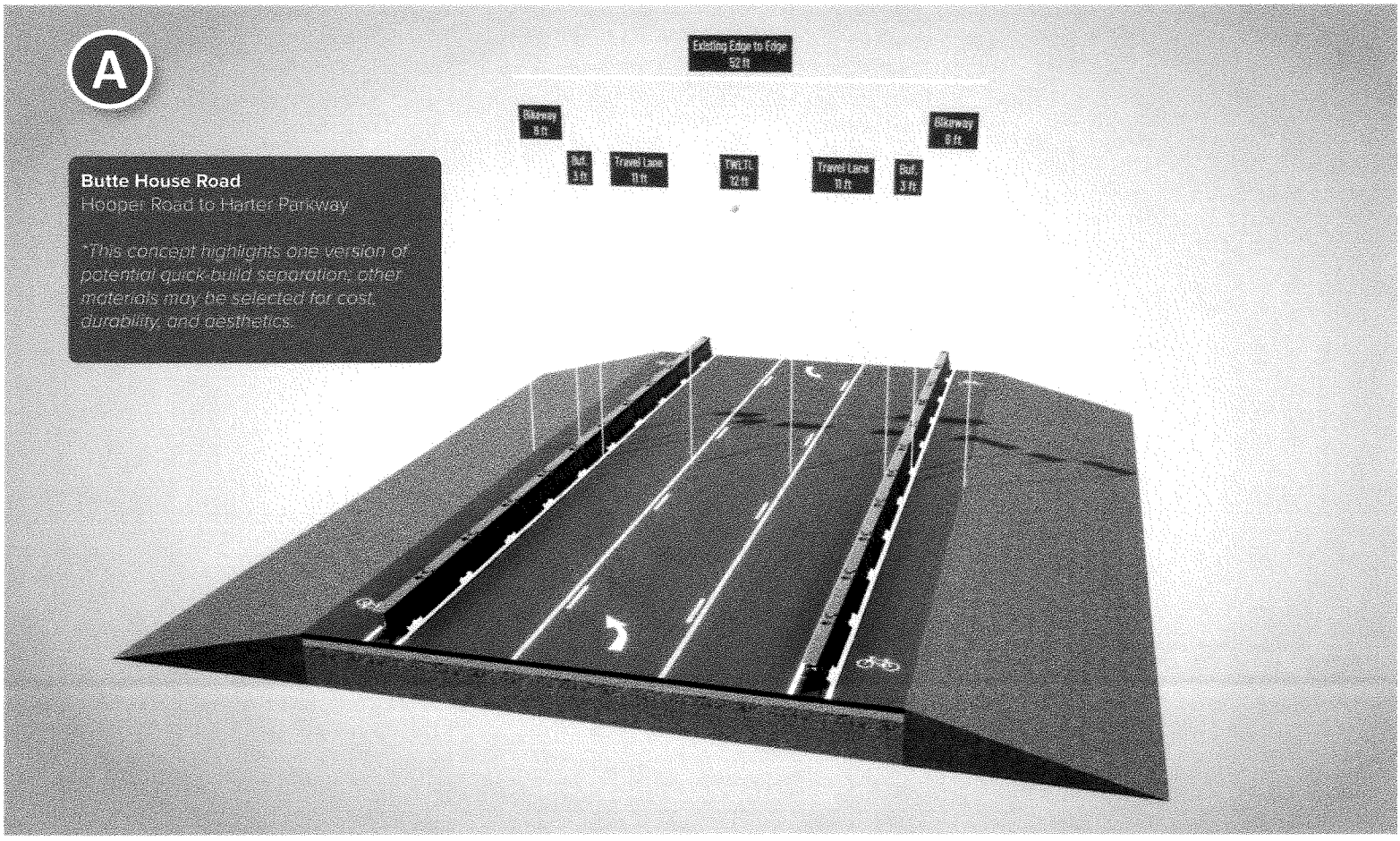

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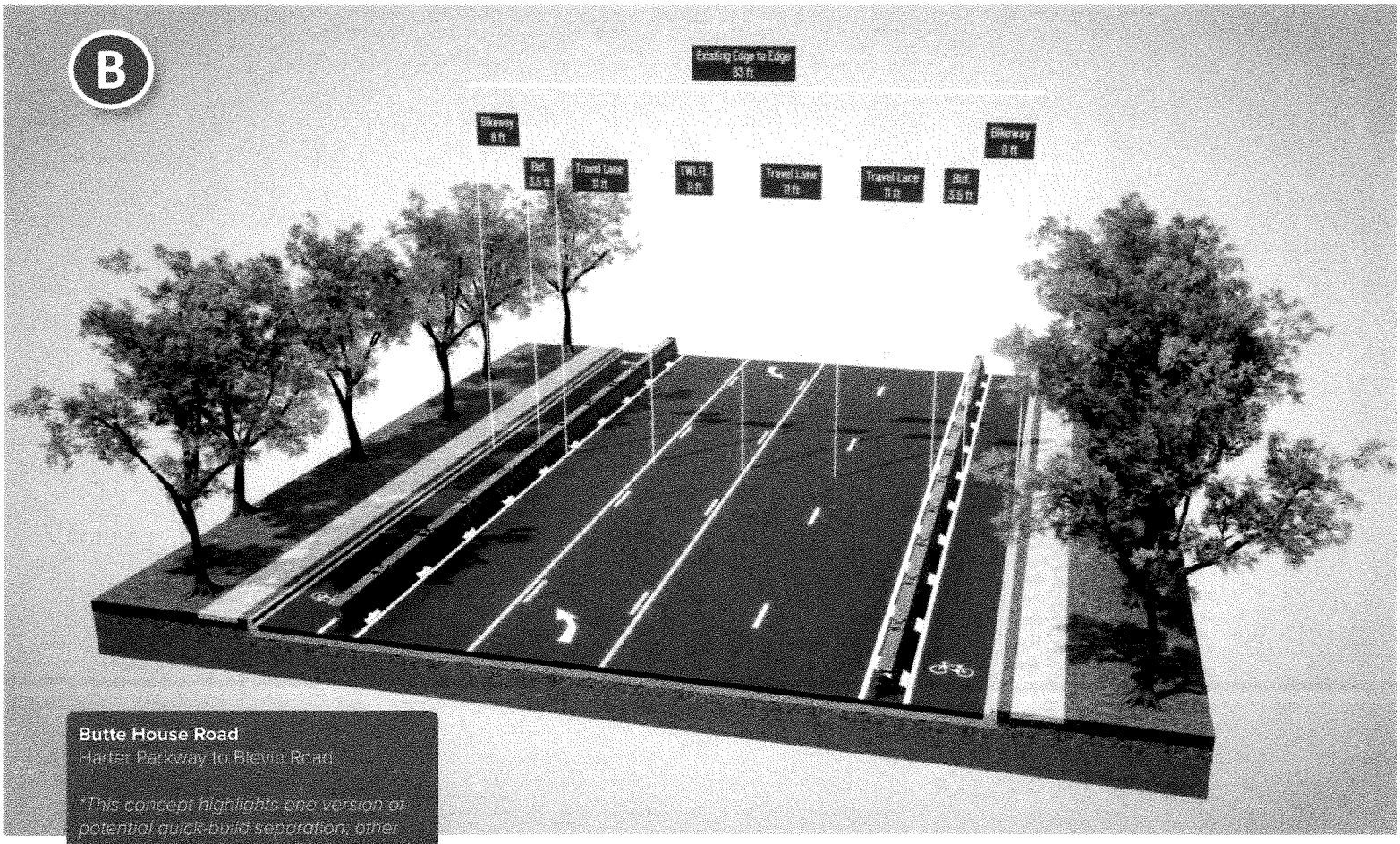
 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.



Butte House Road
Harter Parkway to Blevin Road

**This concept highlights one version of potential quick-build separation; other materials may be selected for cost, durability, and aesthetics.*

alta

 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.

Queens Ave
Blevin Road to Stabler Lane;
Stafford Way to Live Oak Blvd

**This concept highlights one version of potential quick-build separation; other materials may be selected for cost, durability, and aesthetics.*

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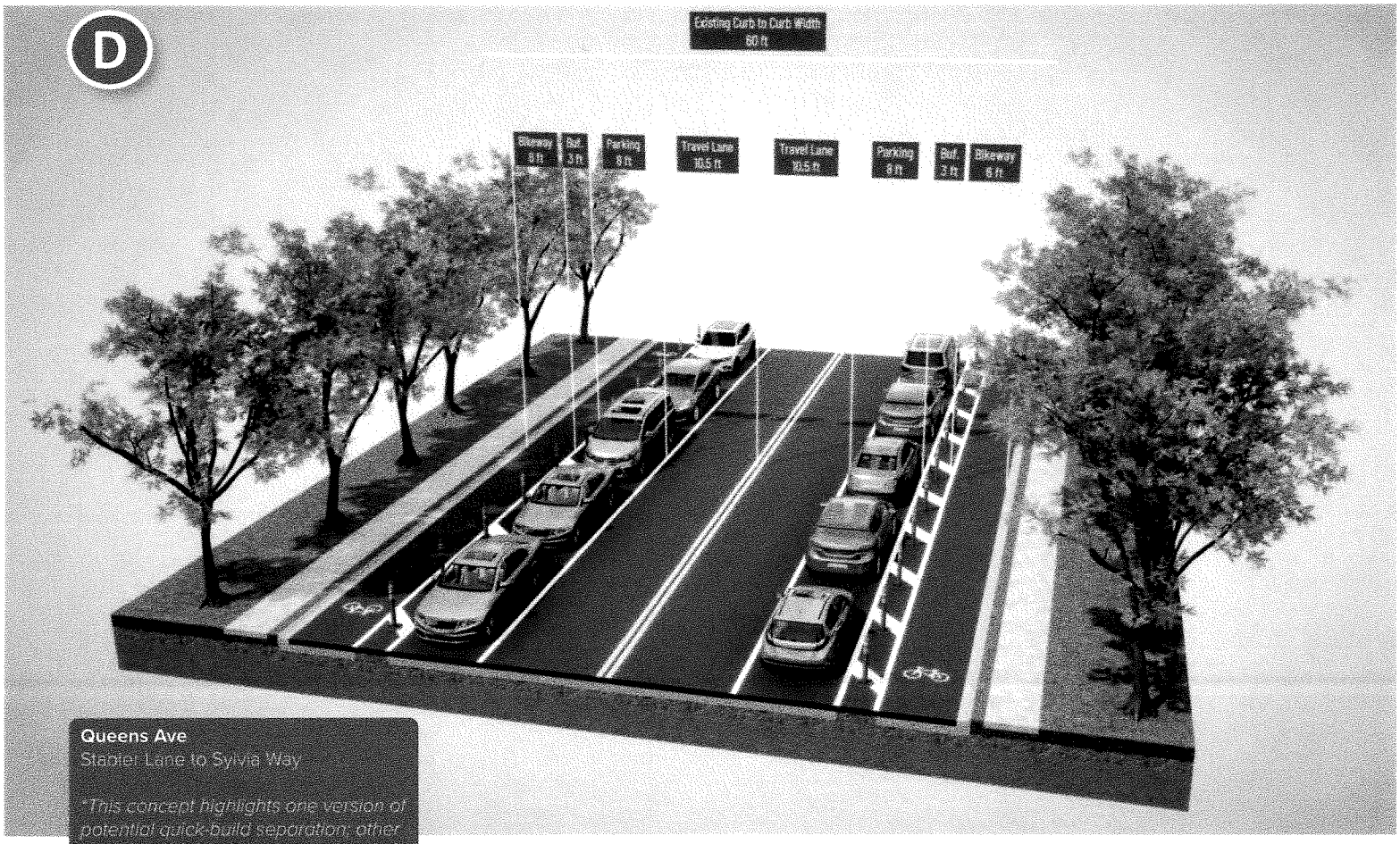
 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.



Queens Ave
Stabler Lane to Sylvia Way

**This concept highlights one version of potential quick-build separation; other materials may be selected for cost, durability, and aesthetics.*

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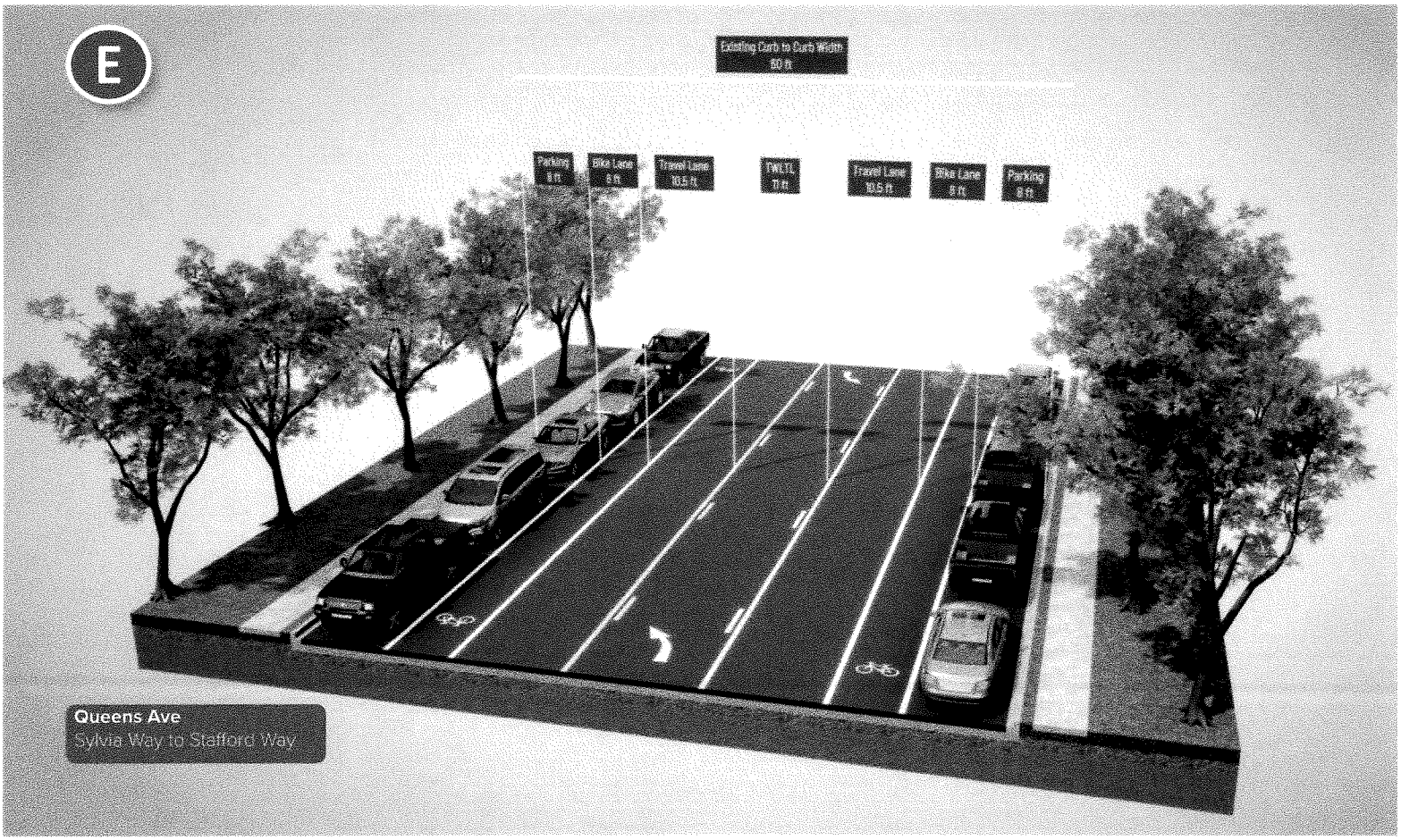

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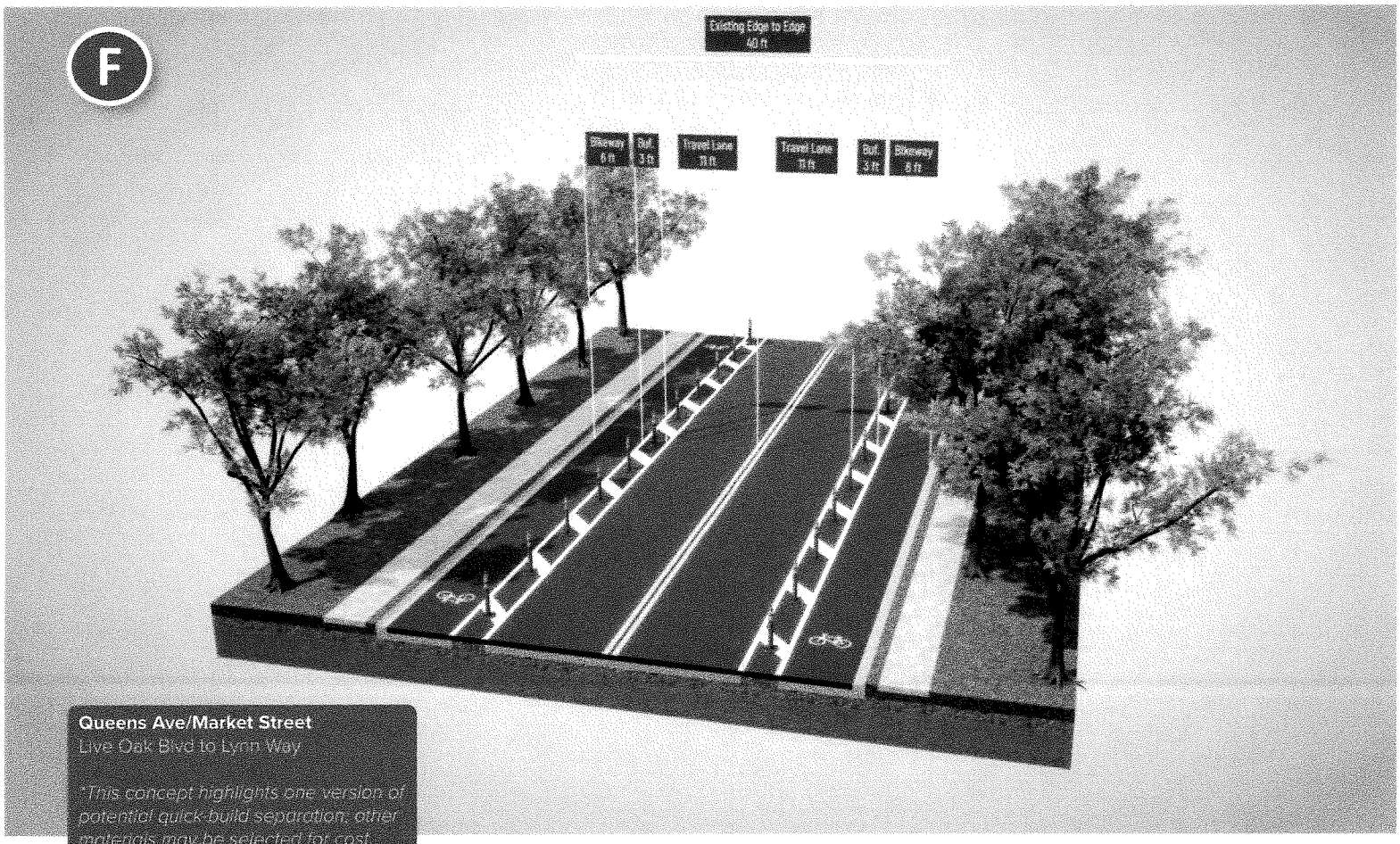

Queens Ave/Market Street
Live Oak Blvd to Lynn Way

**This concept highlights one version of potential quick-build separation; other materials may be selected for cost, durability, and aesthetics.*

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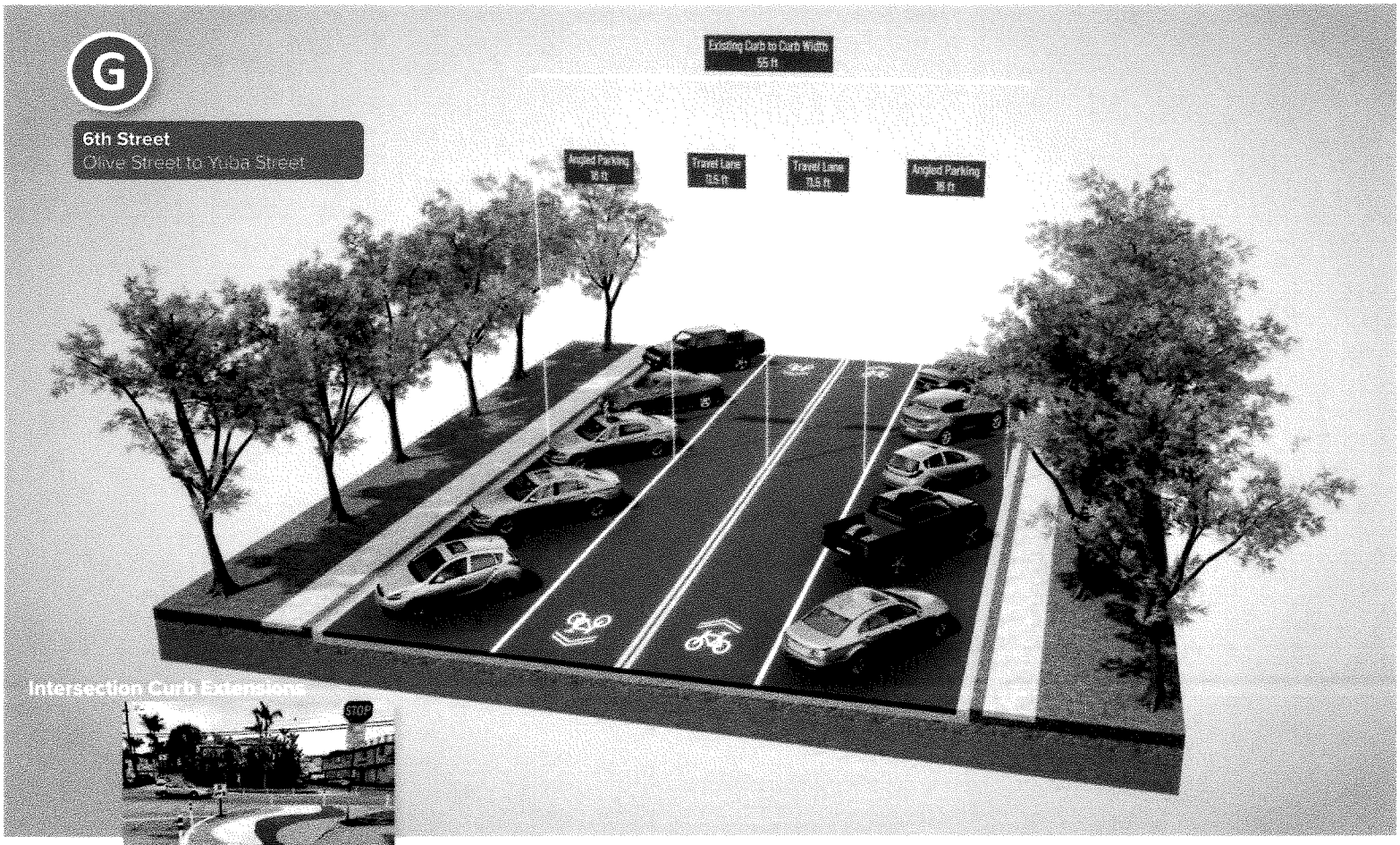
 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.



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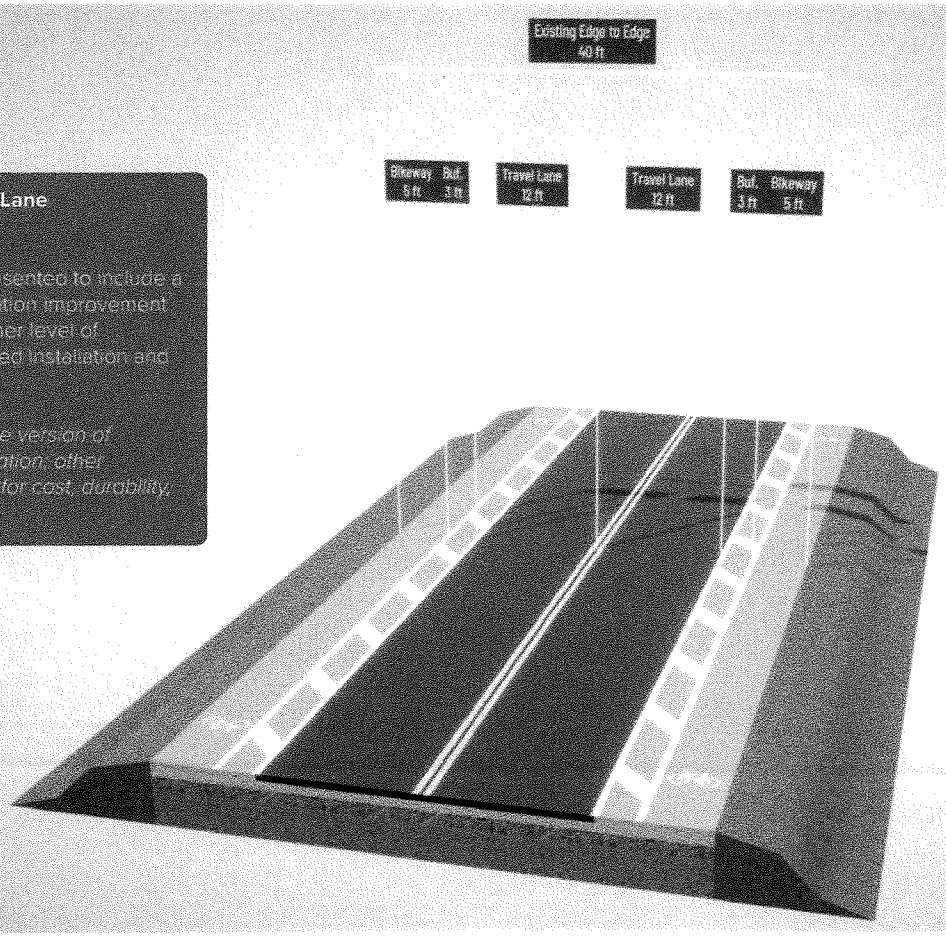
 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.

H1

Ramirez Street / Simpson Lane
E. 10th Street to Linda Ave

Concept H1 and H2 are presented to include a range of quick-build separation improvement options. H2 provides a higher level of separation but with increased installation and maintenance costs.

**This concept highlights one version of potential quick-build separation; other materials may be selected for cost, durability, and aesthetics.*



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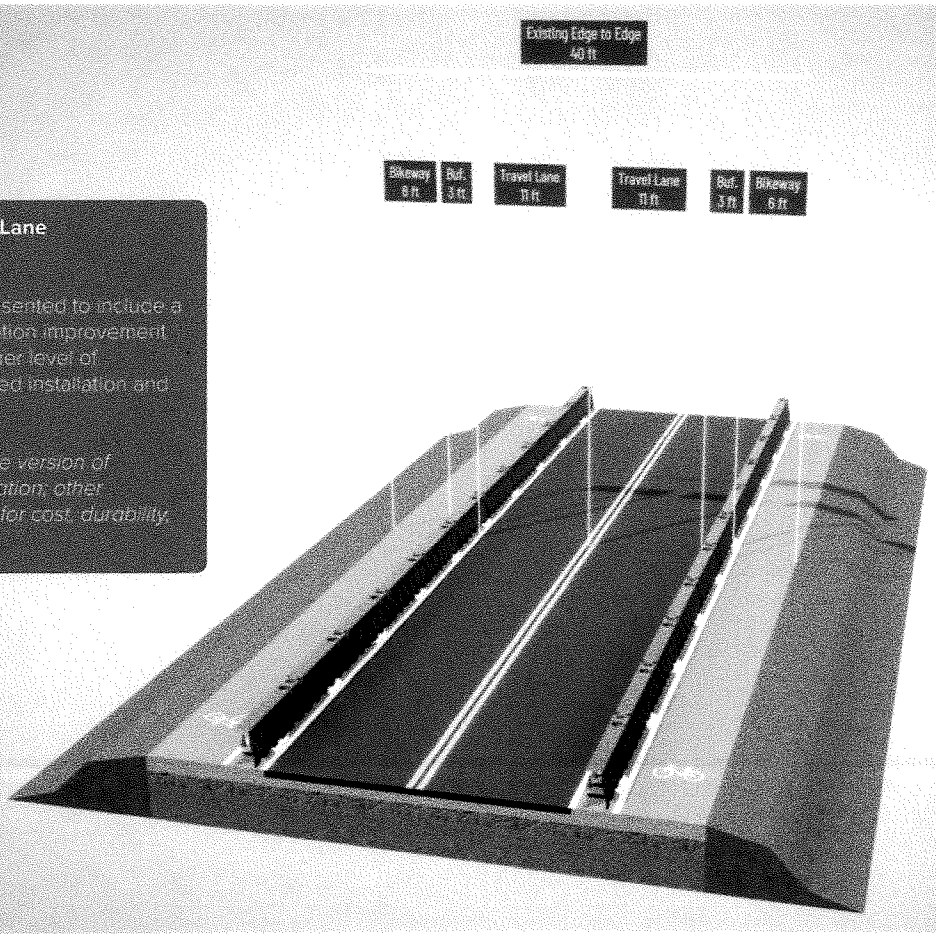
 Concept shown for planning purposes. Traffic operational analysis and geometric design is required to further analyze and refine this concept for implementation.

H2

Ramirez Street / Simpson Lane
E 10th Street to Linda Ave

Concept H1 and H2 are presented to include a range of quick-build separation improvement options. H2 provides a higher level of separation but with increased installation and maintenance costs.

**This concept highlights one version of potential quick build separation; other materials may be selected for cost, durability, and aesthetics.*



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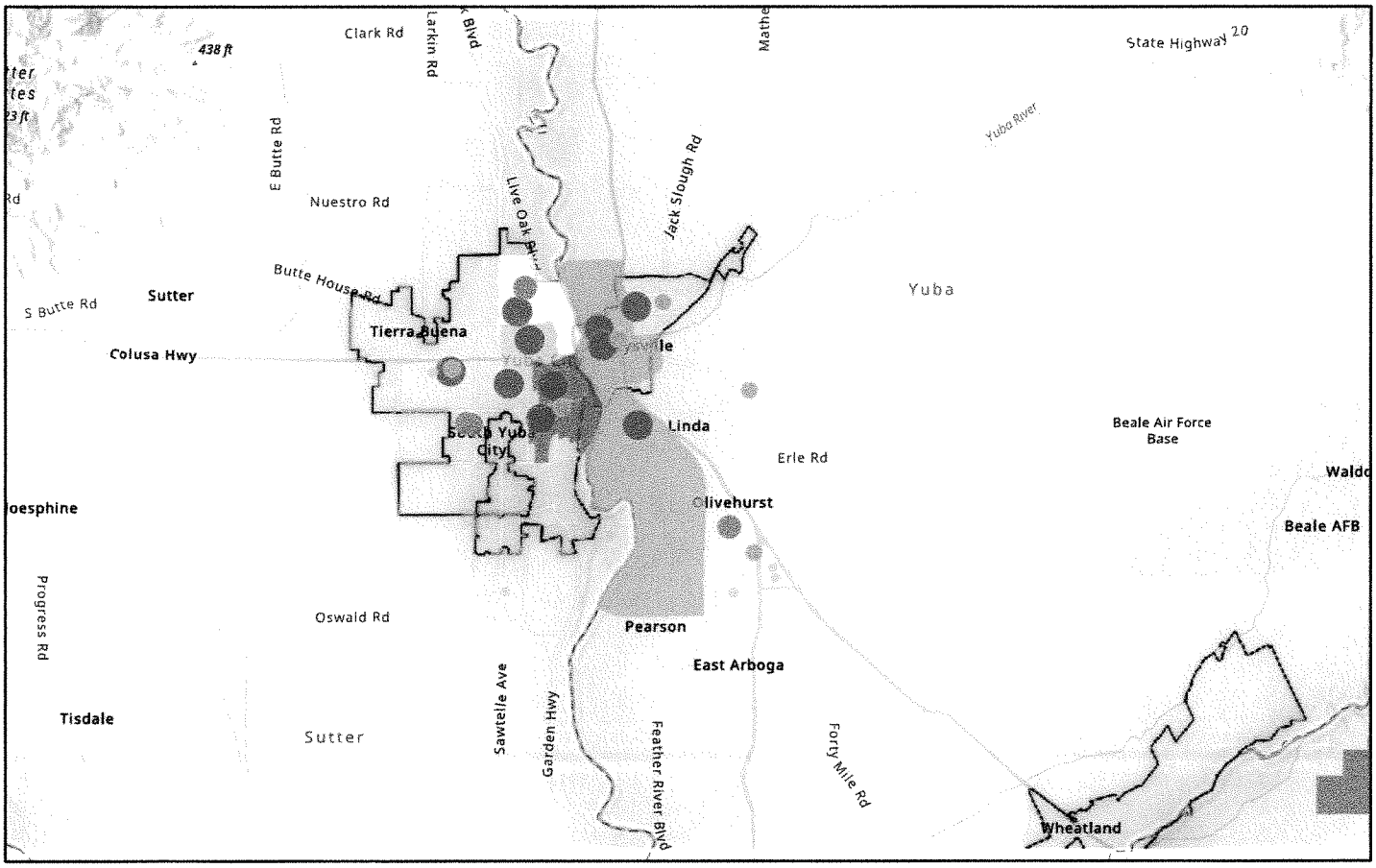
 Concept shown for planning purposes. Traffic operations analysis and geometric design is required to further analyze and refine this concept for implementation.

Appendix C – Grant Consideration Materials

- **Healthy Places Index Maps**
  - Free & Reduced-Price Meal Schools Map (schools with 75% or more of students eligible to receive Free and Reduced Price Meals)
  - Disadvantaged Communities Map
  - Top 25% Most Disadvantaged Areas
- **CalEnviroScreen 4.0 Maps**
  - Cardiovascular Disease Map
  - Low Educational Attainment Map
  - Linguistic Isolation Map
  - Low Birth Weight Map
  - Pesticide Use Map
  - Poverty Map
  - Unemployment Map

YubaSutter Healthy Place Index And FRPM Schools



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Free or Reduced-Price Meals (Disadvantaged Schools)

- > 75% of students receive free/reduce price lunches.3588516746 - 80
- > 80% of students receive free/reduce price lunches
- > 85% of students receive free/reduce price lunches
- >90% of students receive free/reduce price lunches

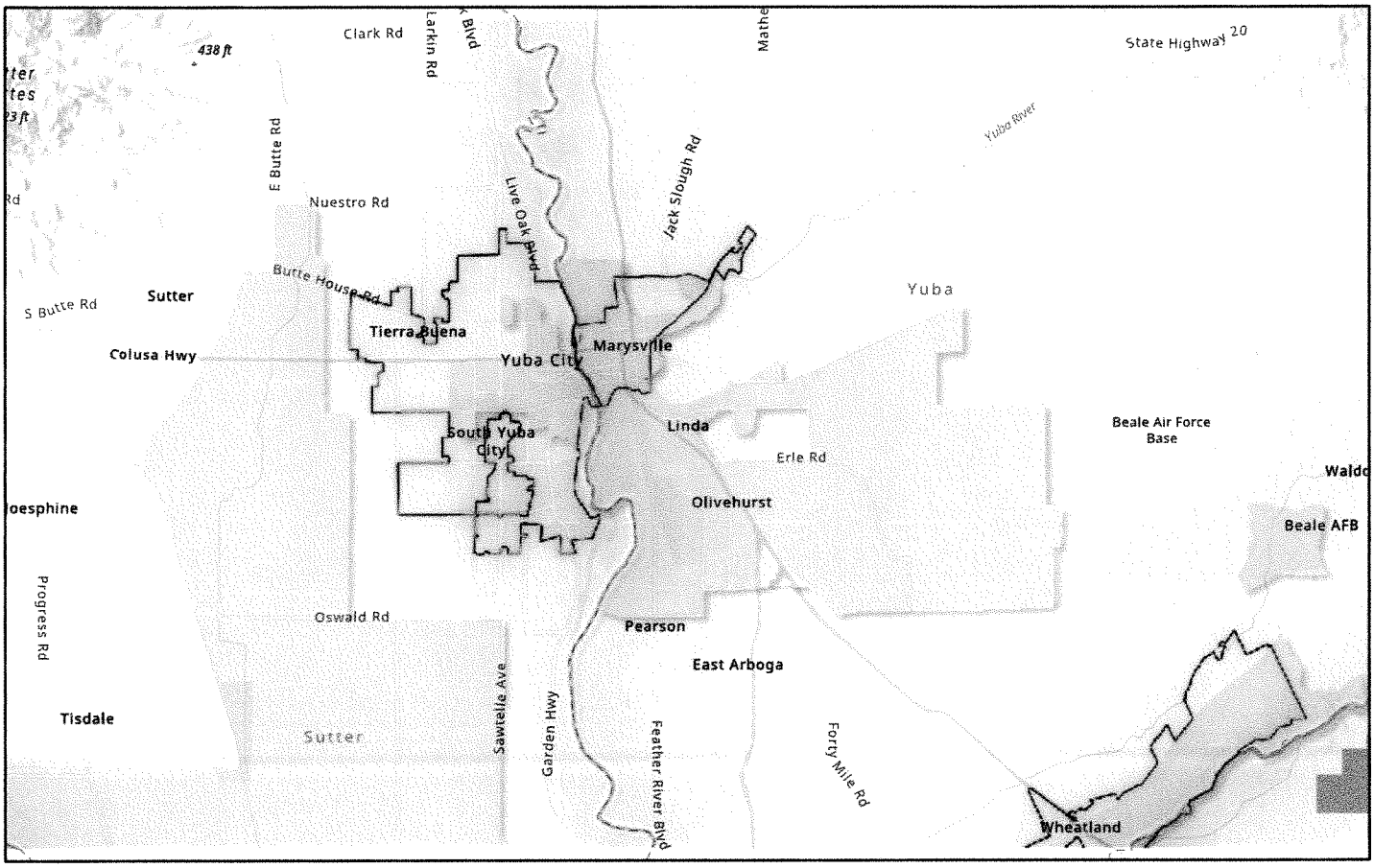
1:216,371

0 1.25 2.5 5 mi

0 2.25 4.5 9 km

Esri, NASA, NGA, USGS, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS,

Yuba Sutter Disadvantaged Communities



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Tribal Lands

World Hillshade

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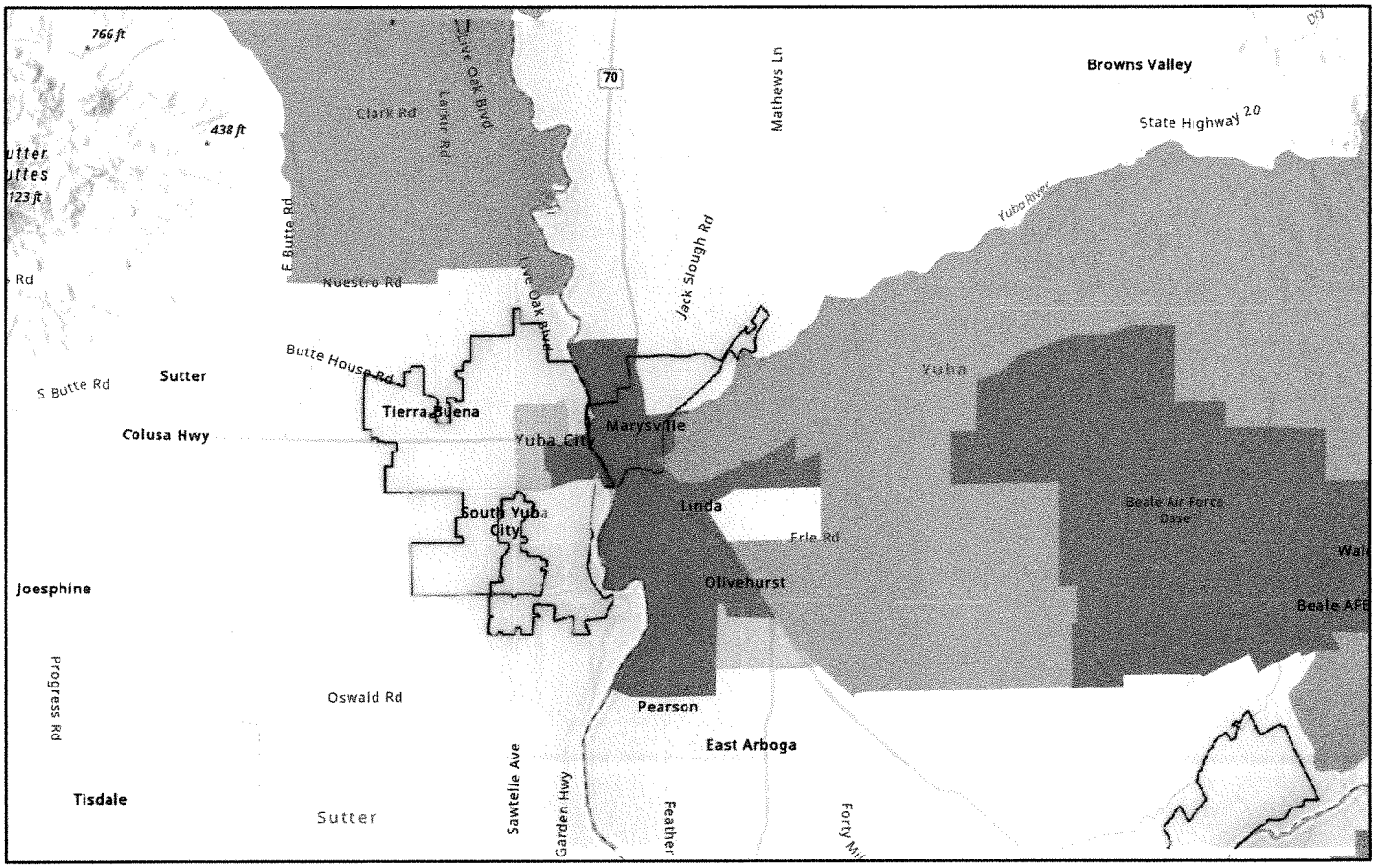
0 2.25 4.5 9 km

Esri, NASA, NGA, USGS, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS.

Yuba Sutter HPI Areas



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Healthy Places Index

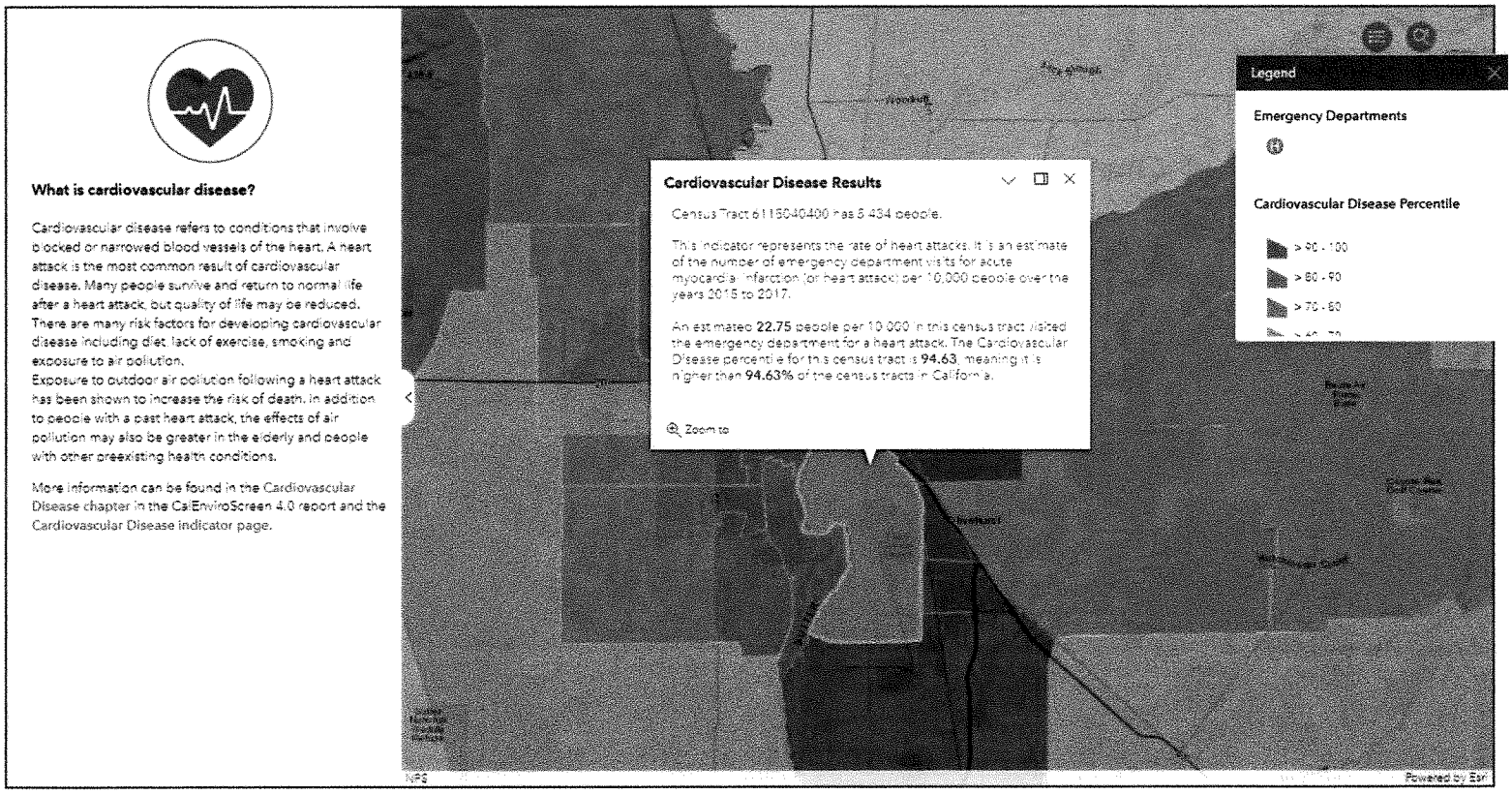
- >10% most disadvantaged
- 10-15% most disadvantaged
- 15% - 20% most disadvantaged
- 20% - 25% most disadvantaged
- Tribal Lands
- World Hillshade

1:216,371

0 1.25 2.5 5 mi

0 2.25 4.5 9 km

Esri, NASA, NGA, USGS, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS,

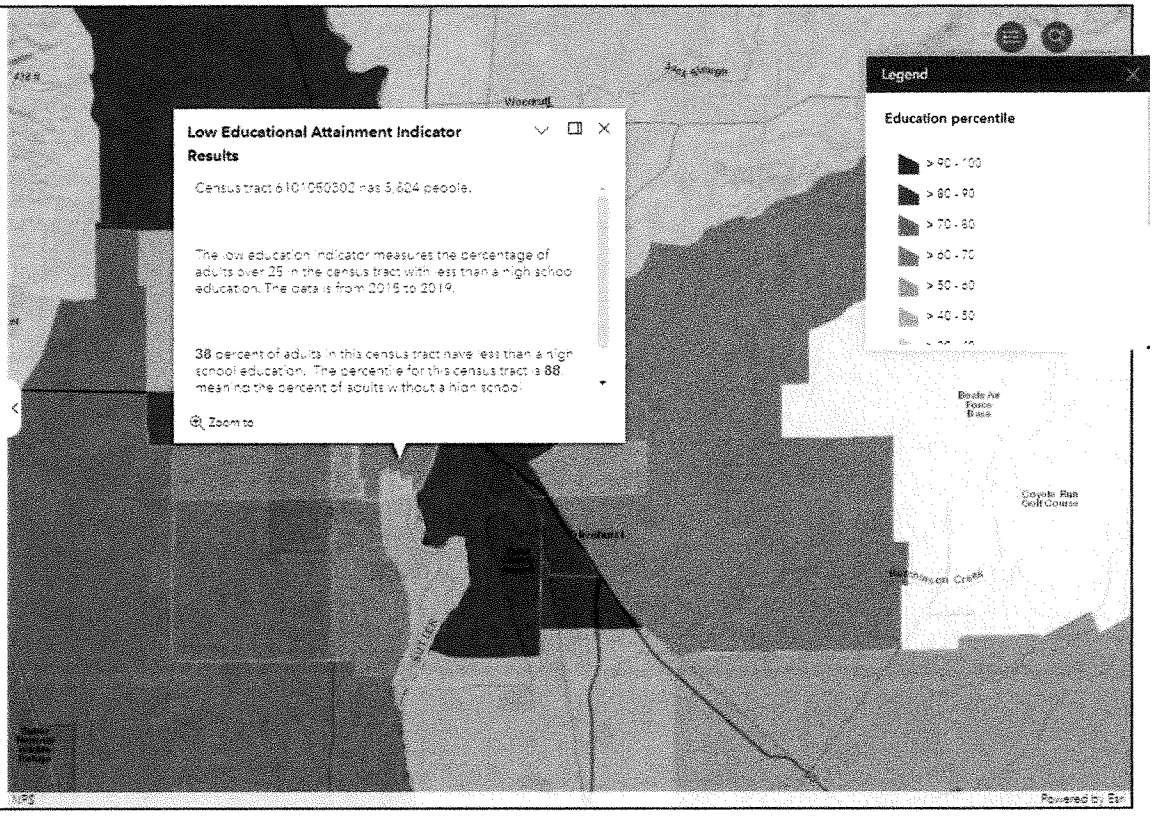

What is cardiovascular disease?
Cardiovascular disease refers to conditions that involve blocked or narrowed blood vessels of the heart. A heart attack is the most common result of cardiovascular disease. Many people survive and return to normal life after a heart attack, but quality of life may be reduced. There are many risk factors for developing cardiovascular disease including diet, lack of exercise, smoking and exposure to air pollution.
Exposure to outdoor air pollution following a heart attack has been shown to increase the risk of death. In addition to people with a past heart attack, the effects of air pollution may also be greater in the elderly and people with other preexisting health conditions.
More information can be found in the Cardiovascular Disease chapter in the CalEnviroScreen 4.0 report and the Cardiovascular Disease indicator page.
Cardiovascular Disease Results
Census Tract 6115040400 has 5,434 people.
This indicator represents the rate of heart attacks. It is an estimate of the number of emergency department visits for acute myocardial infarction (or heart attack) per 10,000 people over the years 2015 to 2017.
An estimated 22.75 people per 10,000 in this census tract visited the emergency department for a heart attack. The Cardiovascular Disease percentile for this census tract is 94.63, meaning it is higher than 94.63% of the census tracts in California.
Zoom to
Legend
Emergency Departments
Cardiovascular Disease Percentile
> 90 - 100
> 80 - 90
> 70 - 80
NPS
Powered by Esri

What is low educational attainment?

Educational attainment is the highest level of education a person has completed. People with more education usually earn more than people with less education. California has a high percentage of people without high school degrees compared to the rest of the United States, which makes education important to consider.

Many studies have found that the health effects of air pollution are worse among people with low educational attainment.

More information can be found in the Educational Attainment chapter in the CalEnviroScreen 4.0 report and the Educational Attainment indicator page.

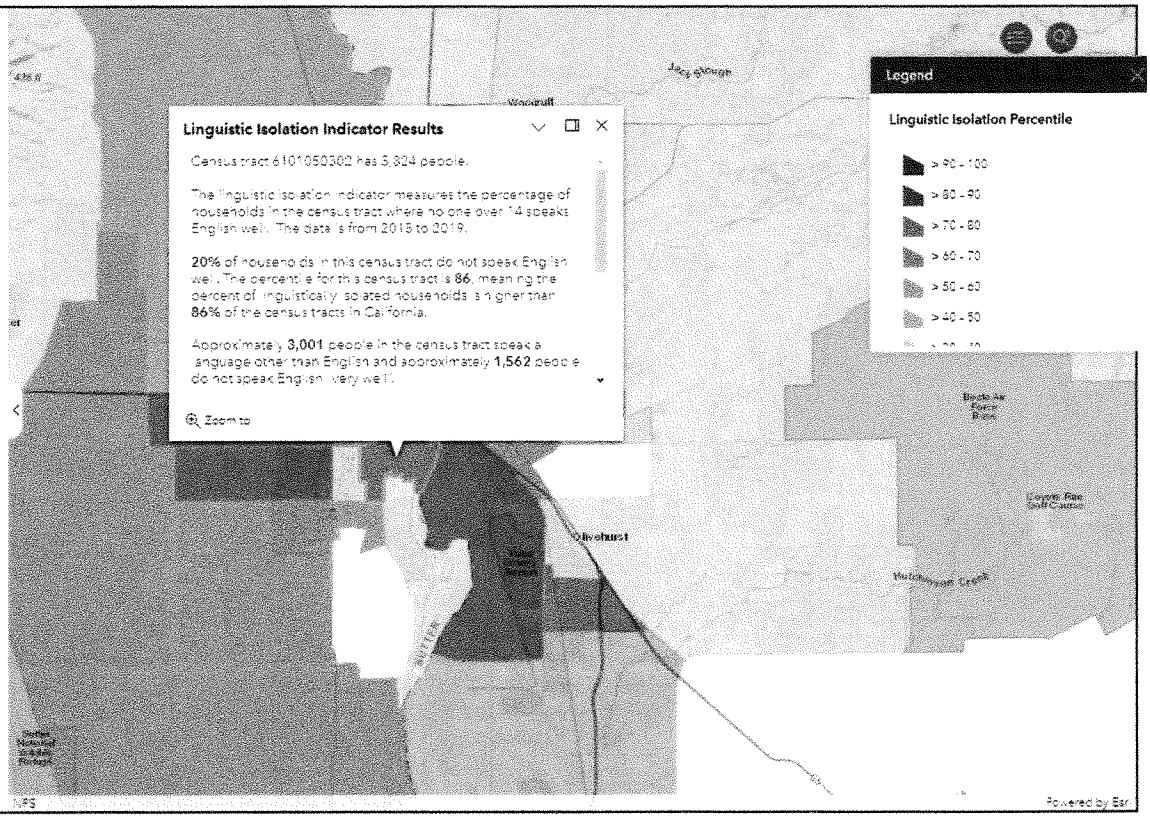


What is linguistic isolation?

Linguistic isolation is a term used by the U.S. Census Bureau for limited English-speaking households. More than 40 percent of Californians speak a language other than English at home. About half of those do not speak English well or at all.

Adults who are not able to speak English well often have trouble talking to the people who provide social services and medical care. Linguistically isolated households may also not hear or understand important information when there is an emergency like an accidental chemical release or spill.

More information can be found in the Linguistic isolation chapter in the CalEnviroScreen 4.0 report and the Linguistic isolation indicator page.



CalEnviroScreen 4.0 Indicator Maps

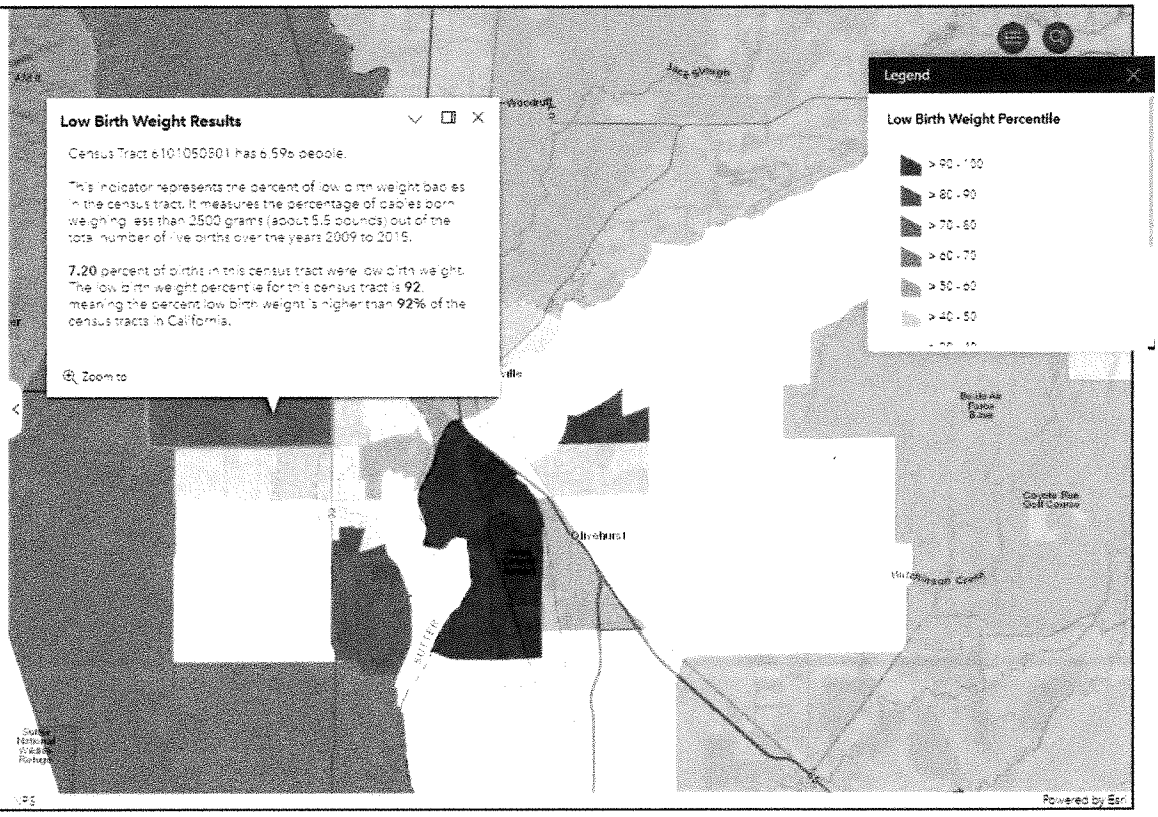
Results Map

What is low birth weight?

Babies who weigh less than about five and a half pounds (or 2500 grams) at birth are considered low birth weight. Poor nutrition, lack of prenatal care, stress and smoking by the mother are known to increase the risk of having a low birth weight baby. Studies suggest that pollution could also be a factor.

Low birth-weight babies may face a greater risk of developing asthma or other chronic diseases later in life. They are also more likely to die as infants than babies who are not born low weight.

More information can be found in the Low Birth Weight chapter in the CalEnviroScreen 4.0 report and the Low Birth Weight indicator page.

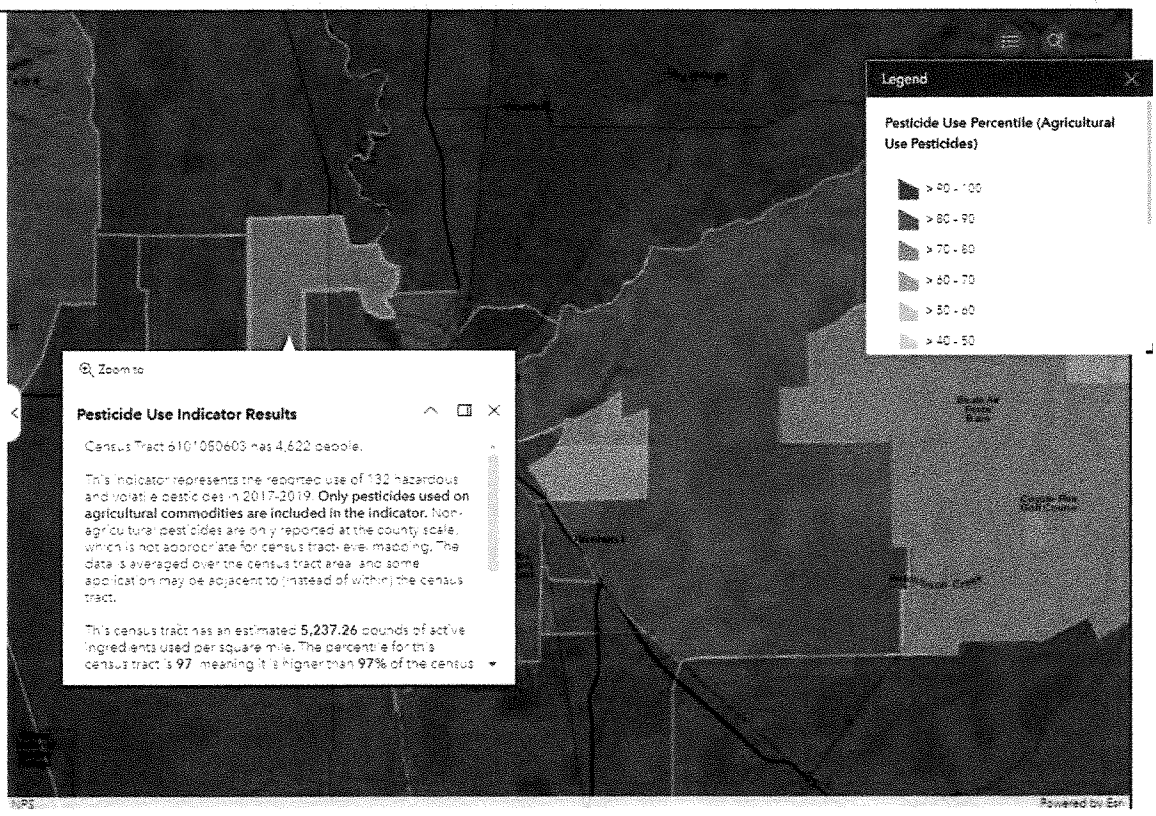


What are pesticides?

Pesticides are chemicals used to control insects, weeds and plant diseases. Over 1,000 pesticides are registered for use in California. They are applied to fields by air, by farm machinery, or by workers on the ground.

Farmworker families and other people who live near fields can be exposed to pesticides both outdoors and inside homes. Exposure to high levels of some pesticides can cause illness right away or conditions such as birth defects or cancer later in life.

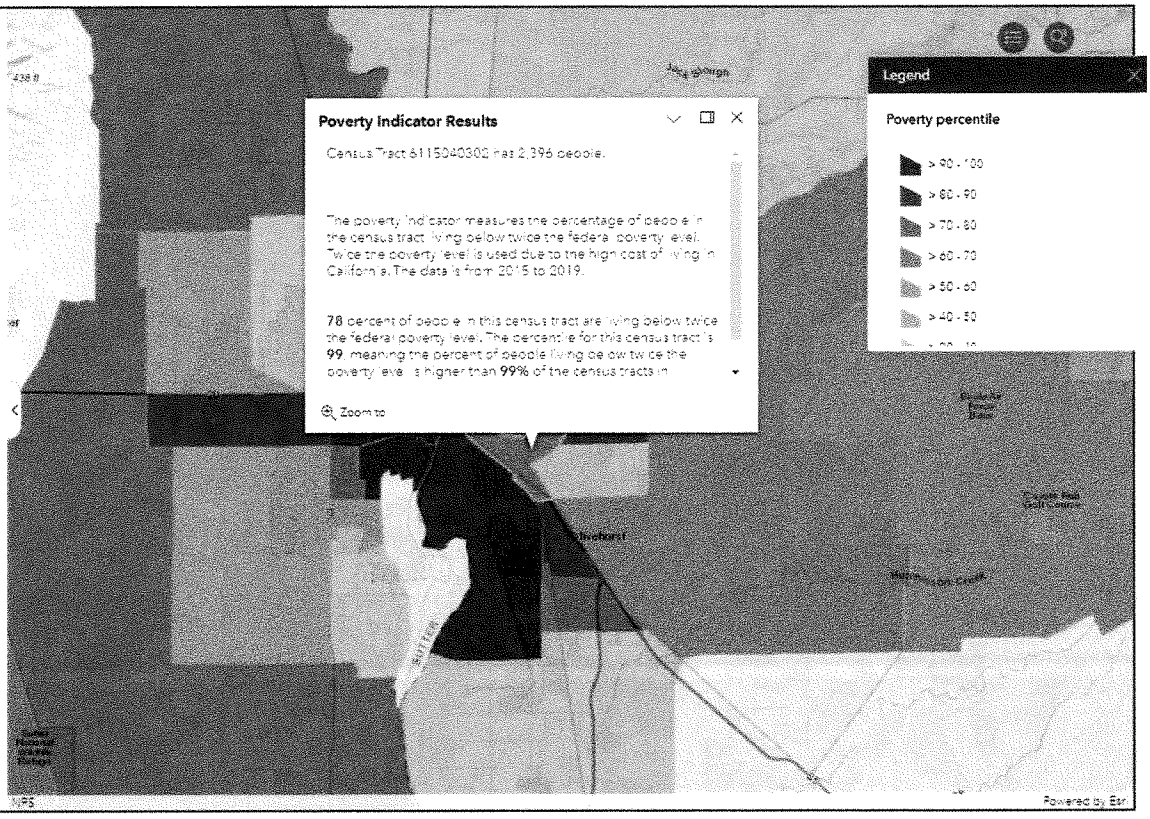
More information can be found in the Pesticide chapter in the CalEnviroScreen 4.0 report and the Pesticide indicator page.



What is poverty?

The U.S. Census Bureau determines the federal poverty level each year. The poverty level is based on the size of the household and the age of family members. If a person or family's total income before taxes is less than the poverty level, the person or family are considered in poverty.
Many studies have found that people living in poverty are more likely than others to become ill from pollution.

More information can be found in the Poverty chapter in the CalEnviroScreen 4.0 report and the Poverty indicator page.



What is unemployment?

The U.S. Census Bureau counts people who are over 16 years old, out of work and able to work but not working as unemployed. This does not include students, active duty military, retired people or people who have stopped looking for work.

Stress from long-term unemployment can lead to chronic illnesses, such as heart disease, and can shorten a person's life.

More information can be found in the Unemployment chapter in the CalEnviroScreen 4.0 report and the Unemployment indicator page.