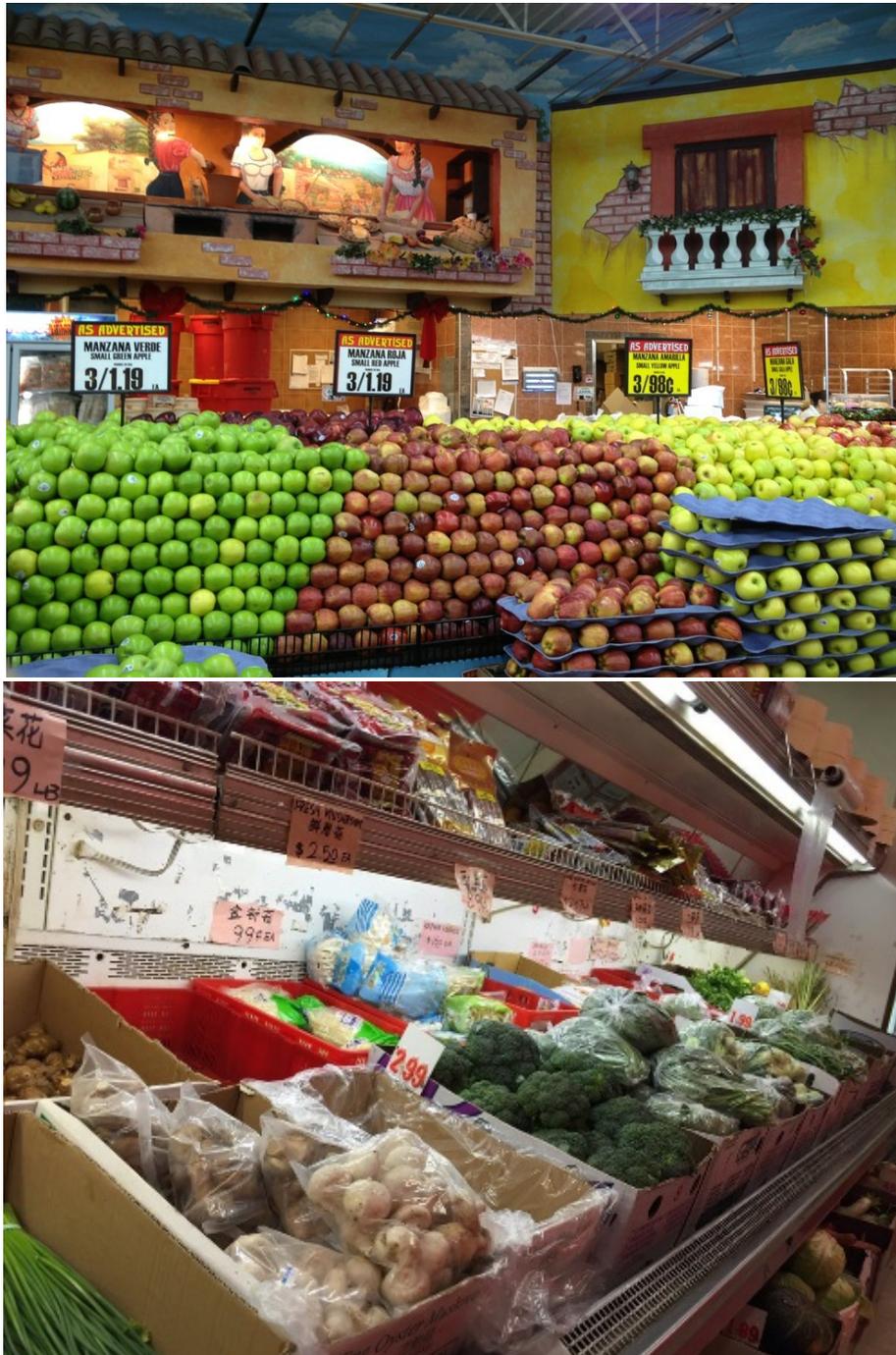


Regional Food Desert Assessment and Strategies: Phase II



Prepared by the Sacramento Area Council of Governments for the Strategic Growth Council

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Disclaimer

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Background

In January 2014, SACOG completed an initial Regional Food Desert Mapping Study, funded through a Round 1 grant from the California Strategic Growth Council (SGC). This initial study built on several prior food desert-related efforts: a 2009 Sacramento County “food balance” study of access to grocery stores vs. fast food restaurants in the unincorporated area of the county; a 2009 report of the U.S. Department of Agriculture (USDA), *Access to Affordable and Nutritious Food- Measuring and Understanding Food Deserts and Their Consequences*; and the USDA’s Food Desert Mapping Tool, released in 2011.

The 2014 study developed a database and map of fresh food outlets. These were defined as supermarkets and grocery stores with annual revenue of at least \$2 million, farmers markets, and local farms directly offering food through U-Pick or food box programs. To determine whether or not residents of the SACOG region could reach these food outlets by various means of transportation, 5-, 10-, and 15-minute “buffers” were created and mapped to assess access by driving, walking, bicycling and public transportation. Communities that could not access food at the identified outlets within 15 minutes via walking, biking or public transit were identified as potential “food deserts.” However, when driving was added into the transportation mode choice, more communities contained within the mobility buffer were considered to have good access to food outlets.

This initial study was a starting point for identifying food access issues across the region. A 2nd Round SGC grant enabled SACOG to undertake Part II of this project: building on this prior work to review the food desert profiles and maps developed as part of the 2014 study with stakeholders and identify strategies and next steps for addressing identified food deserts and imbalance areas.

Through this process, we first identified limitations in the initial methodology that likely resulted in underestimating both local food outlets themselves and the accessibility of those outlets. These include the following:

- Using USDA’s definition of food outlets – supermarkets and grocery stores with \$2 million or more in annual revenues– excludes smaller grocers, ethnic markets, dollar stores, food banks, and others that are also local sources of fresh food and produce.
- Emergency food distribution locations were not included, which understates locations that supply fresh food to those with the greatest levels of food insecurity.
- At the same time, including all farmers markets, instead of just those that operate year round, likely overstates access to fresh produce during the off-season.
- Applying the same “buffers” to urban and rural areas does not adequately acknowledge geographic differences in such a diverse area as the SACOG region.

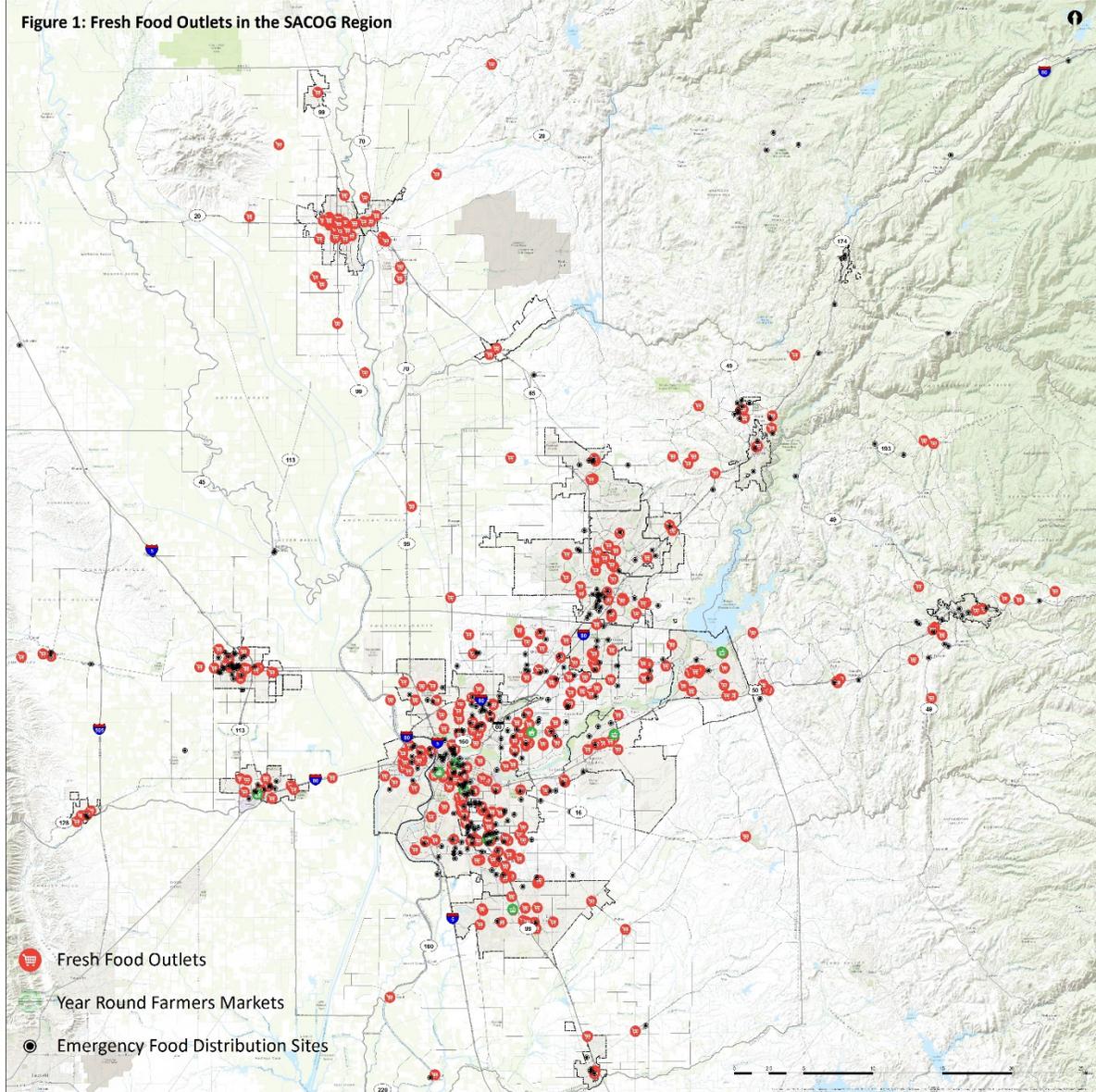
- In the first study, the definition of public transit was limited to light rail transit, which operates only in Sacramento. This excludes all bus service throughout the region, although transit operators report riders using bus transportation for grocery shopping.
- Limiting the definition of public transit “access” to fixed route service overlooks available demand-response and supplementary transportation services that provide grocery trips for seniors, persons with disabilities, and sometimes the general public – although this additional access could be difficult to assess.
- Improving active and public transportation options to reach existing fresh food outlets, adding fresh foods to the offerings of other local outlets, or bringing fresh food more directly to consumers are all strategies to assess as potential solutions for areas with low access to fresh foods.

In light of these considerations, it was determined that a more detailed mapping effort, using expanded definitions of fresh food outlets and public transportation, was necessary to help refine the identification of potential food deserts in the region. The methodology and outcomes of this effort are described in the following sections.

Methodology

To address the limitations identified above and create a more robust picture of fresh food availability for low-income residents, SACOG staff added to its initial maps 400 emergency food distribution sites to help inform the Sacramento Region Food System Action Plan (see Figure 1 on the next page). The Action Plan was developed by Valley Vision in collaboration with the Sacramento Region Community Foundation, SACOG, and many other regional partners for the six-county Sacramento region. The Plan identifies both challenges and opportunities in the region’s food system for addressing the vitality and prosperity of the region’s agricultural economy, access to locally grown healthy food, and hunger and food insecurity affecting many of the region’s residents.

Figure 1. Fresh Food Outlets in the SACOG Region including Emergency Distribution Sites



Even with the addition of emergency food outlets to the maps, the Action Plan notes that,

Four hundred distribution sites is a significant number; however, each of these distribution points does not represent equitable food access. Most of the agencies are food pantries open no more than one day a week, and many are open only one or two days each month. Some of the sites are soup kitchens, child care programs, or other programs that use the food to cook and serve meals to clients. Capacity varies by site. Being mostly volunteer-run limits the number of days many food pantries are able to be open to distribute food to their clients. The least amount of information is known about

the emergency food distribution system in Yuba-Sutter counties which has the smallest number of distribution sites.¹

Given this further limitation, SACOG staff sought to refine its assessment of food outlet gaps by revising its initial fresh food outlet database to include additional consistent sources of fresh foods for the general populace. . To do so, staff first removed seasonal-only farmers markets, CSAs, and U-Pick locations. Staff then used North American Industry Classification System (NAICS) codes to inventory smaller potential food outlets from SACOG’s 2012 employment inventory. Many of the region’s bodegas discount and ethnic markets, particularly those catering to Asian and Hispanic clientele, as well as delis, quick stops, corner stores, etc., were captured through this inventory process. This inventory identified an additional list of over 400 locations.

To ascertain whether these types of stores offer sufficient quantities of fresh food, especially fruits and vegetables, to be considered fresh food outlets, SACOG staff made site visits to a representative sample of smaller stores in the region. What emerged is that using a cutoff of approximately \$500,000 to \$1 million in annual revenues or above is a good indicator of whether or not they offer fresh food and produce in quantity. Stores below that annual revenue might carry a limited selection of fruits and vegetables, milk, bread and/or meats that might help supplement visits to larger stores, but not necessarily provide enough for a complete diet. Based on the findings from the site visits, staff added many smaller outlets with \$500,000 to \$1 million or more in annual sales to the database. As shown in Figure 2, the additions and deletions resulted in a database of 361 fresh food outlets, compared with 308 in the initial study.

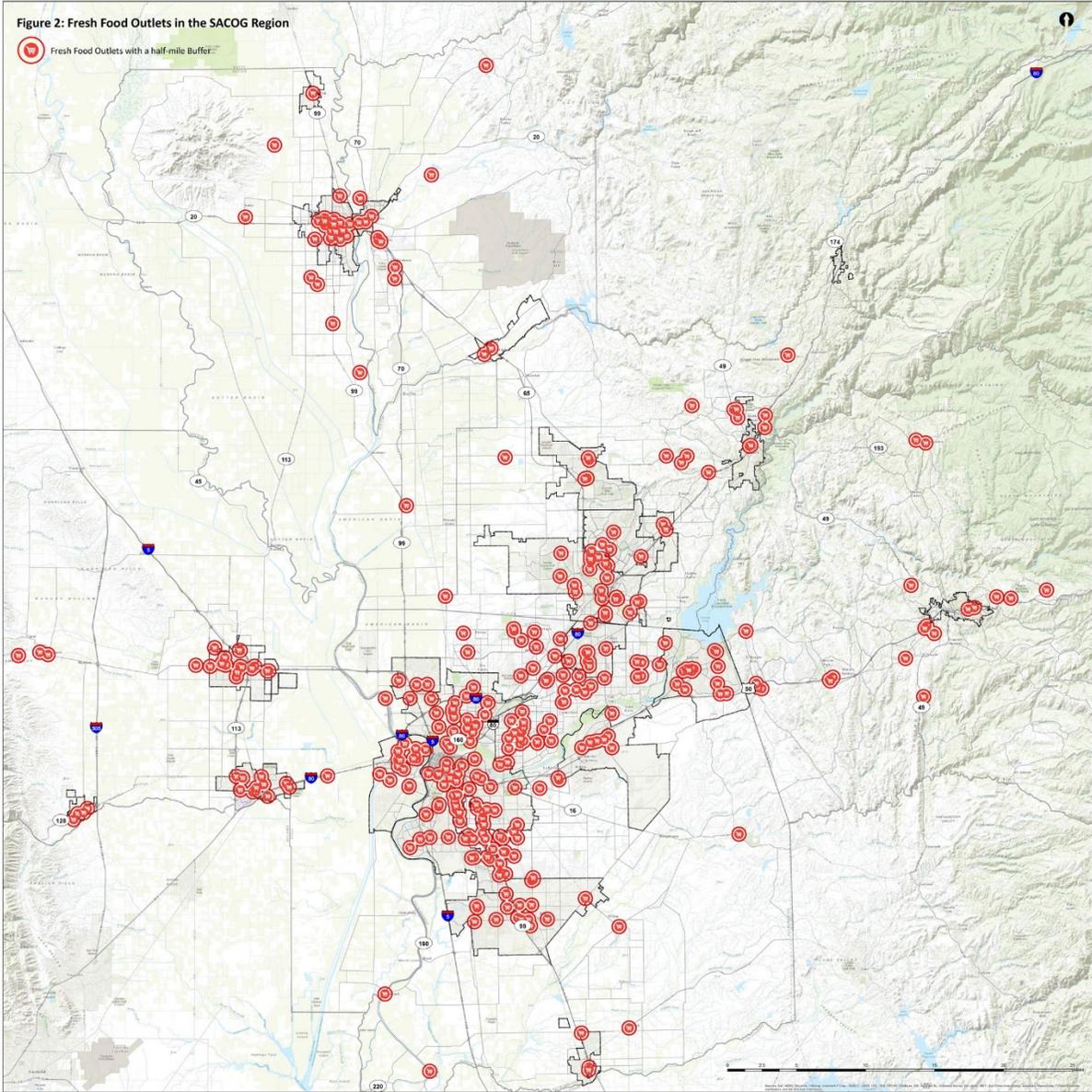
Figure 2: Breakdown of Fresh Food Outlets by Count

Annual Sales Volume	El Dorado County	Placer County	Sacramento County	Sutter County	Yolo County	Yuba County
\$50-100 Million			7	2	1	2
\$20-50 Million	8	25	76	8	15	
\$10-20 Million	5	4	21	2	3	3
\$5-10 Million	1	3	13	3	4	
\$2.5-5 Million	2	2	21	1	7	4
\$1-2.5 Million	2	8	28	6	11	2
\$500,000-1 Million	3	5	27	5	8	2
Less than \$500,000		1	4		3	2
Total # of Stores	21	48	190	25	51	13

Figure 3 shows the expanded map of fresh food outlets (not including emergency distribution sites).

¹ Valley Vision and Sacramento Region Community Foundation, Sacramento Region Food System Action Plan, 2015, p. 11.

Figure 3. Fresh Food Outlets including Smaller Retail Outlets in the SACOG Region



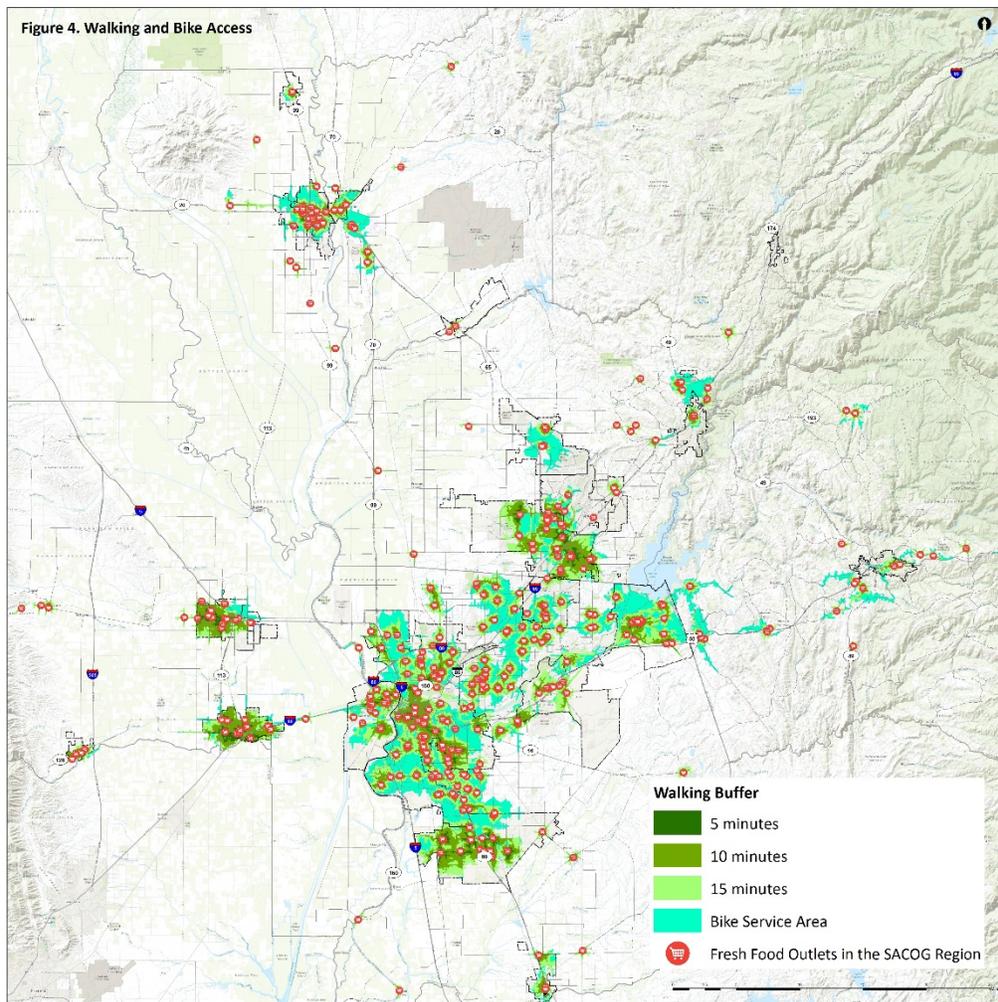
Transportation Access to Fresh Food Outlets

Based on the expanded database of fresh food outlets, SACOG staff updated its analysis and maps of access to these outlets by walking and biking and focused on public transit. Buffers of 5-, 10- and 15-minute distances were again used around the different food outlet points. Figure 4 overlays the expanded database of fresh food outlets with the walk and bike buffers.

Assumptions remained the same for walking, biking in the initial study:

- The analysis assumes that the average walking pace is 3 miles per hour, the average biking pace is 10 miles/hour, but where roads do not have designated bike lanes, assumes that cyclists travel 3-5 miles/hour.
- The analysis uses posted speed limits of individual streets in the road network, or for streets without a posted limit, assumes a speed limit of 25 mph for local roads; 45 mph for collector roads; 45 mph for arterial roads with two lanes; 25 mph for arterial roads with two lanes; and 55 mph for highways.

Figure 4. Walking and Bike Access



For this updated analysis, SACOG staff revised the definition of public transportation to include both light rail transit and regular bus routes (not commuter routes) with a 30-minute or better headway. Transit routes meeting these headways were identified and also categorized by day and time of service. The resulting maps (Figures 5-8) help create a more refined picture of accessibility during the day, in the evening, and on weekends, as this could affect food access for different demographic groups and worker schedules.

Figure 5. AM Transit Travel Access

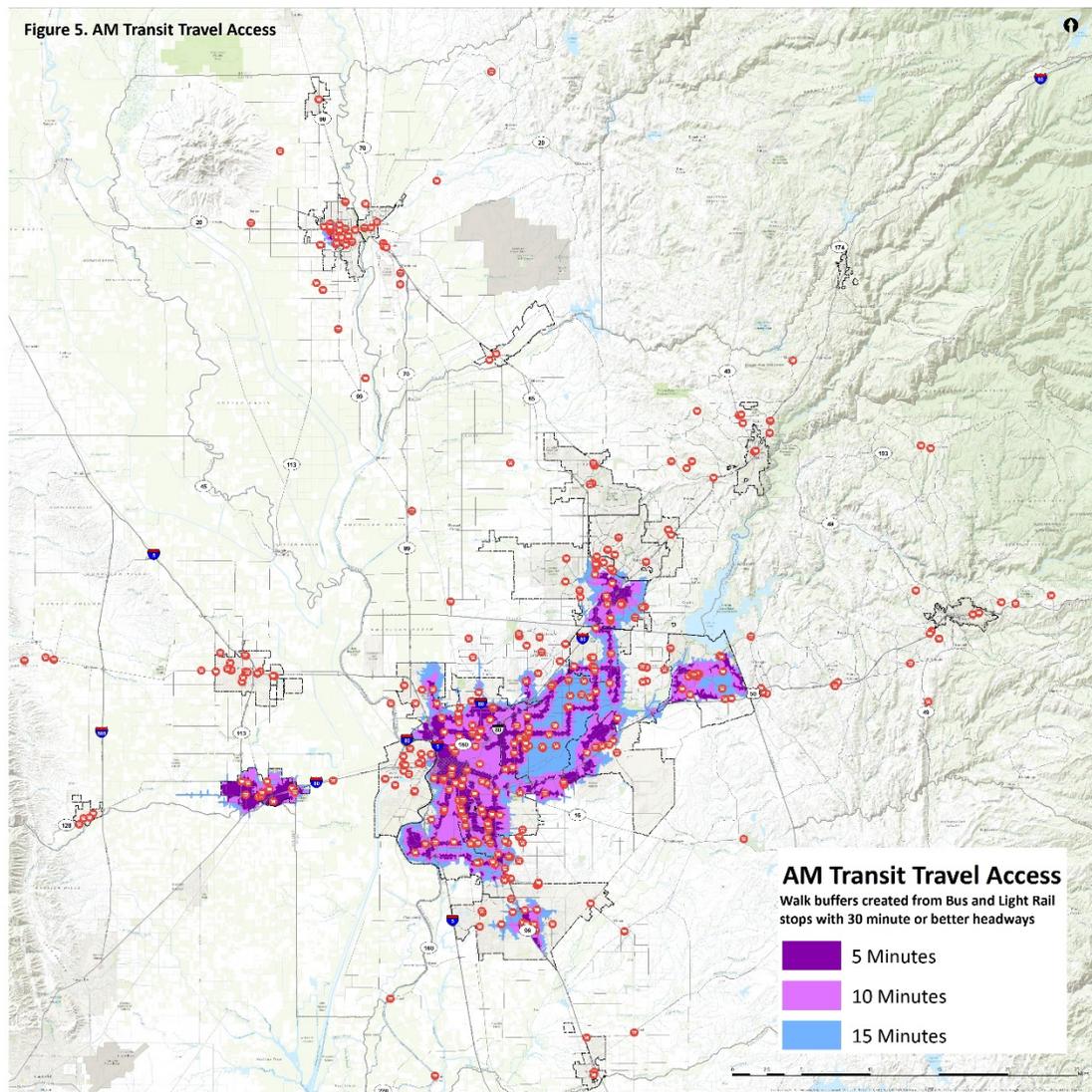


Figure 6. Mid-day Transit Travel Access

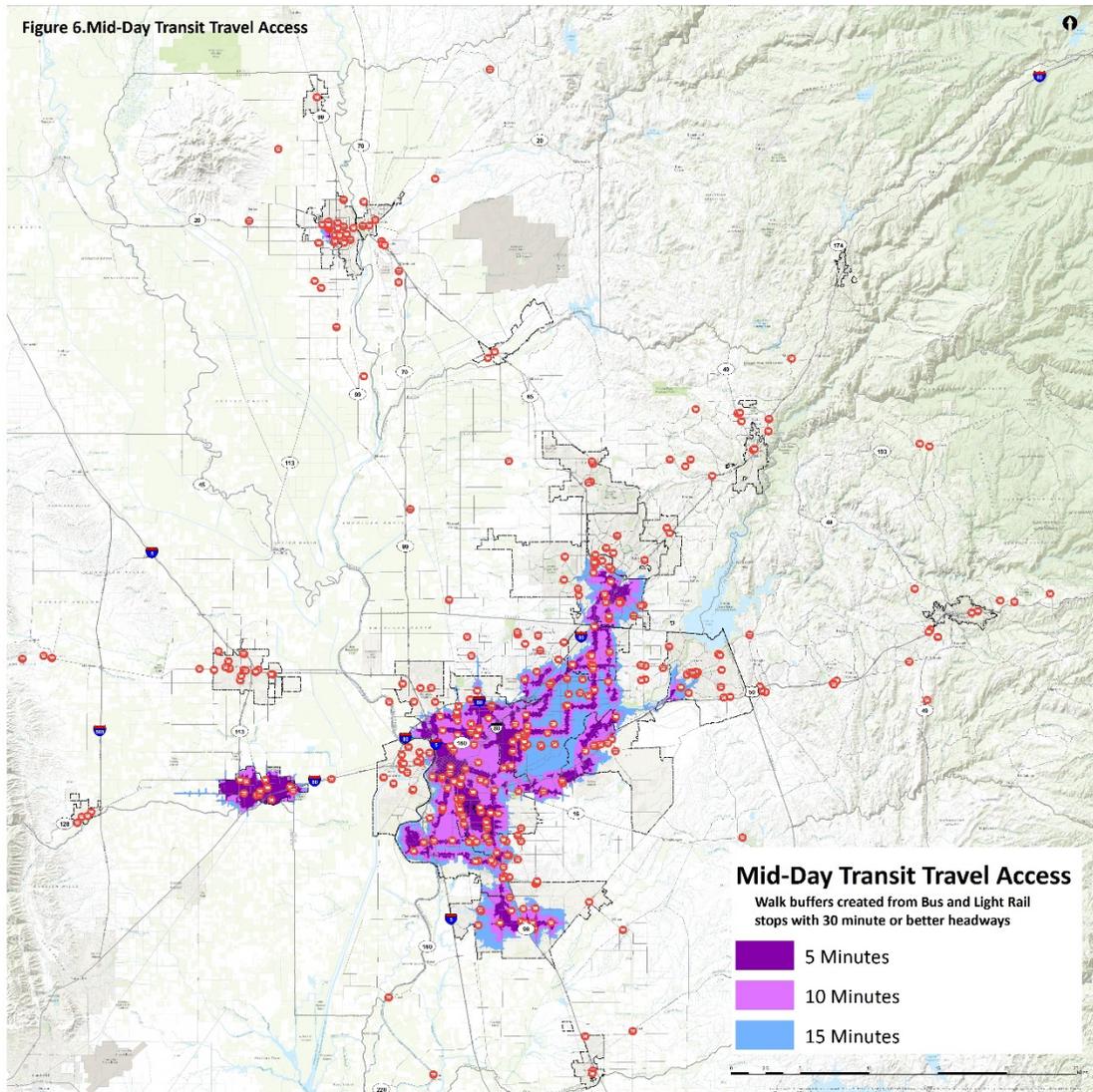


Figure 7. PM Transit Travel Access

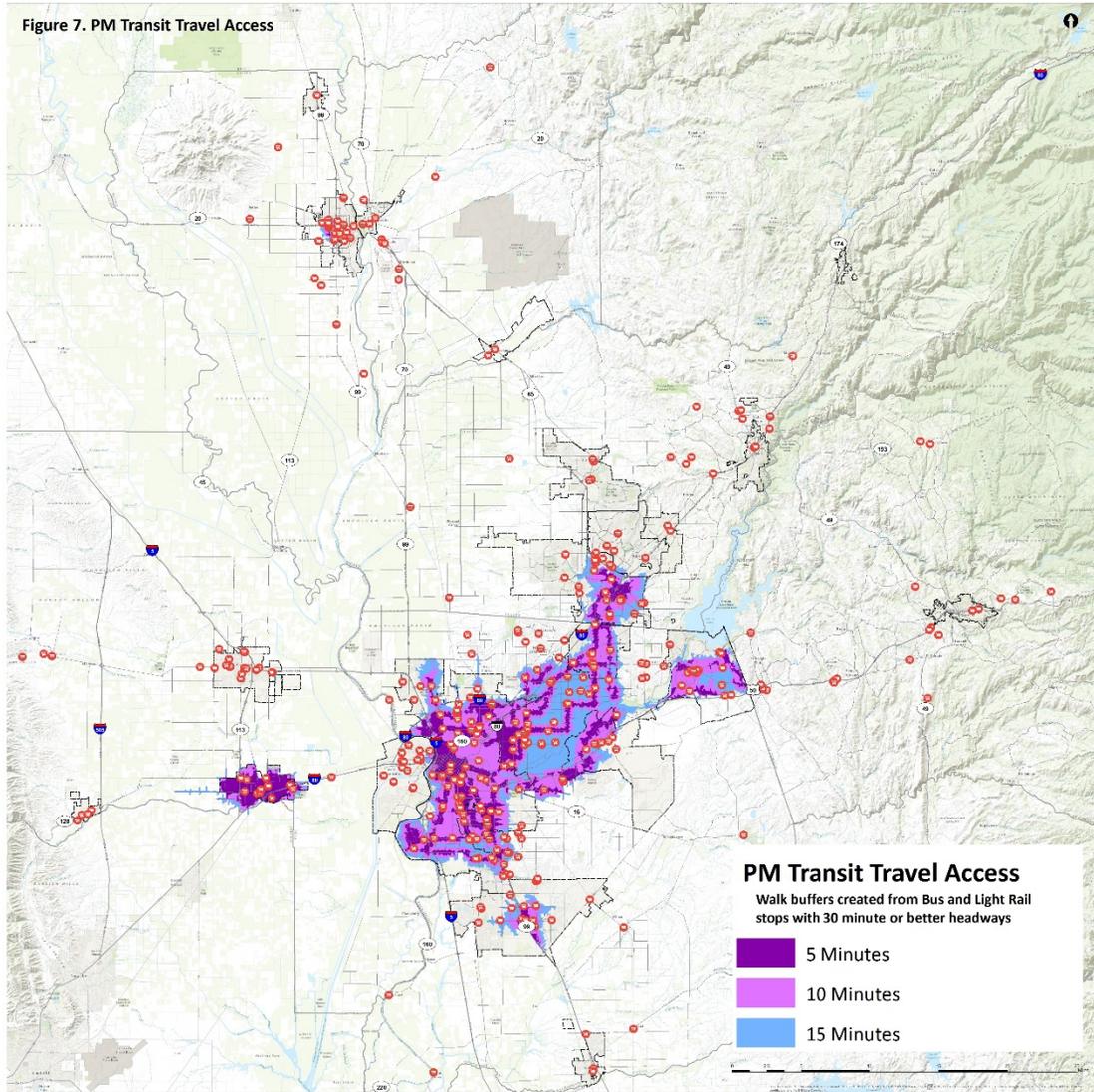


Figure 8. Evening Transit Travel Access

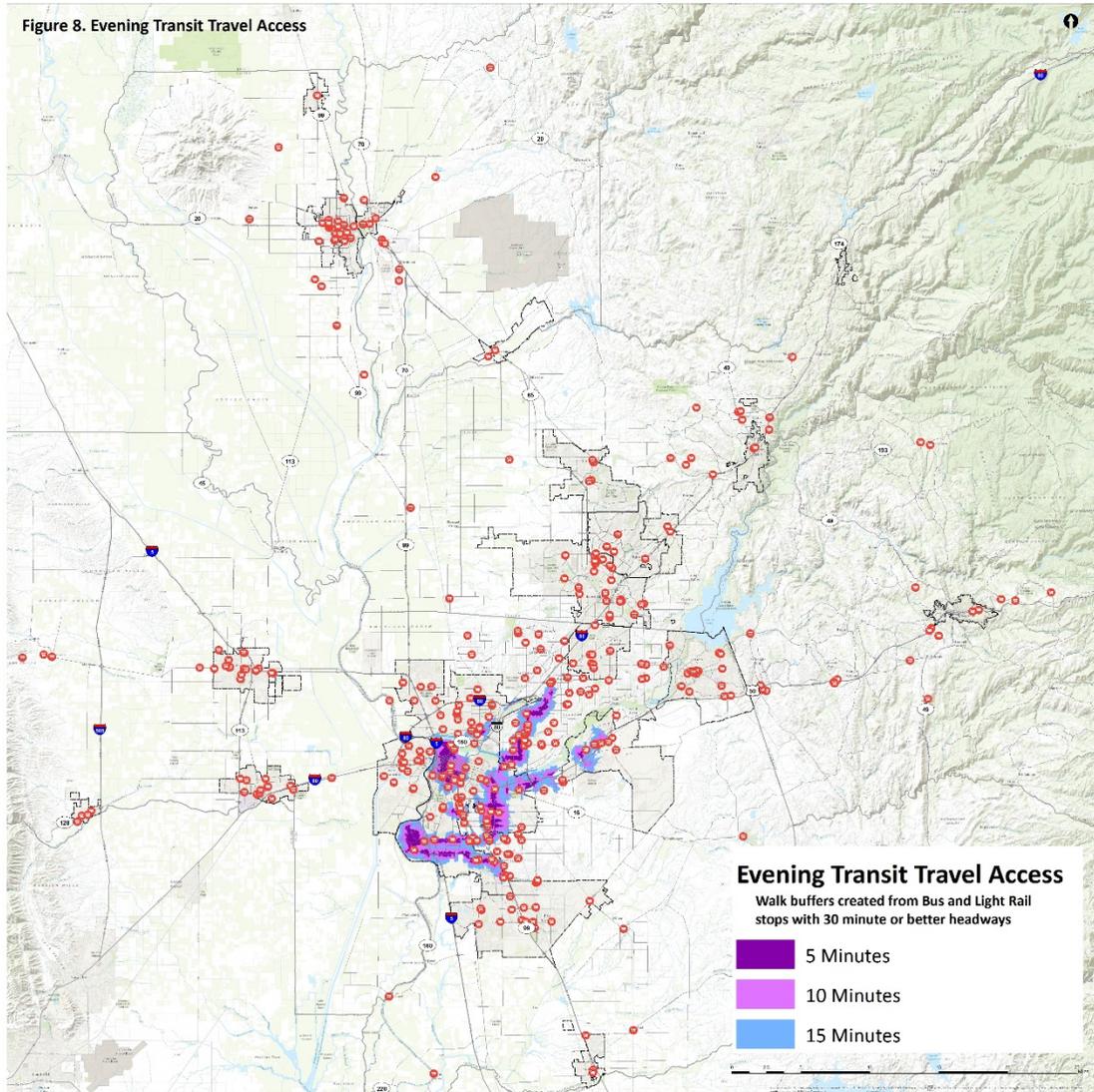


Figure 10. Areas with Food Access Issues with AM Transit Access

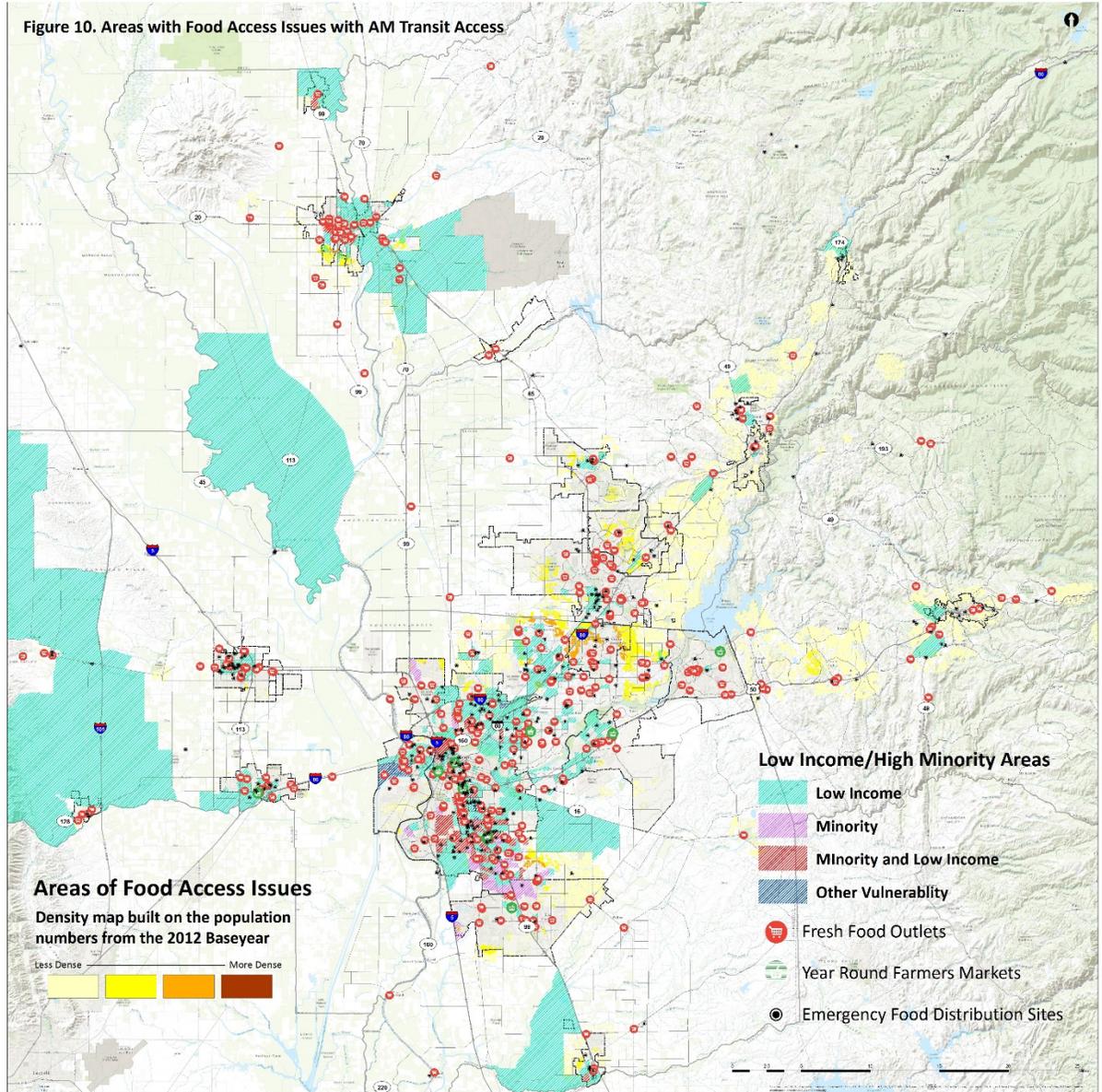


Figure 11. Areas with Food Access Issues with Mid-day Transit Access

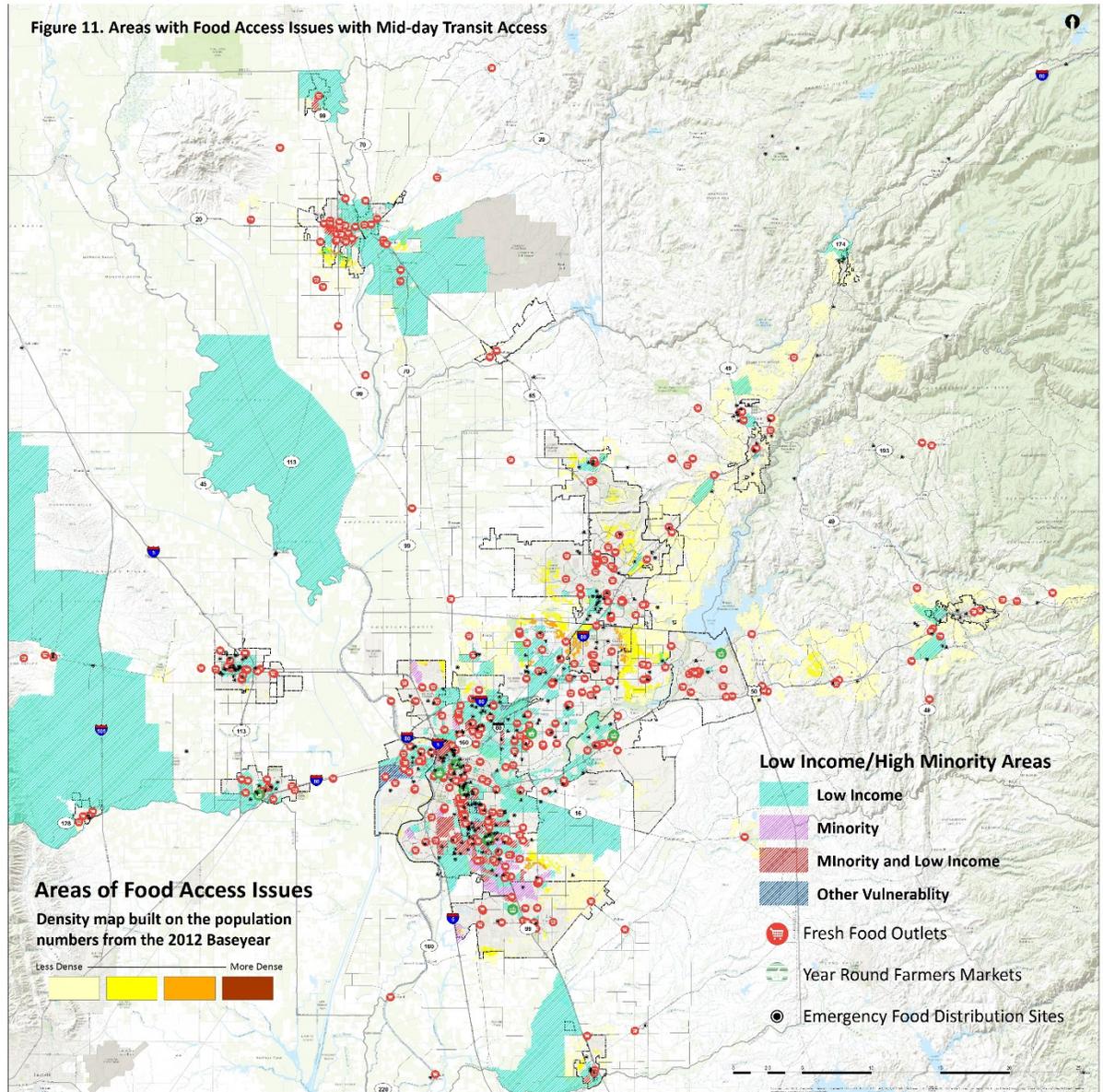


Figure 12. Areas with Food Access Issues with PM Transit Access

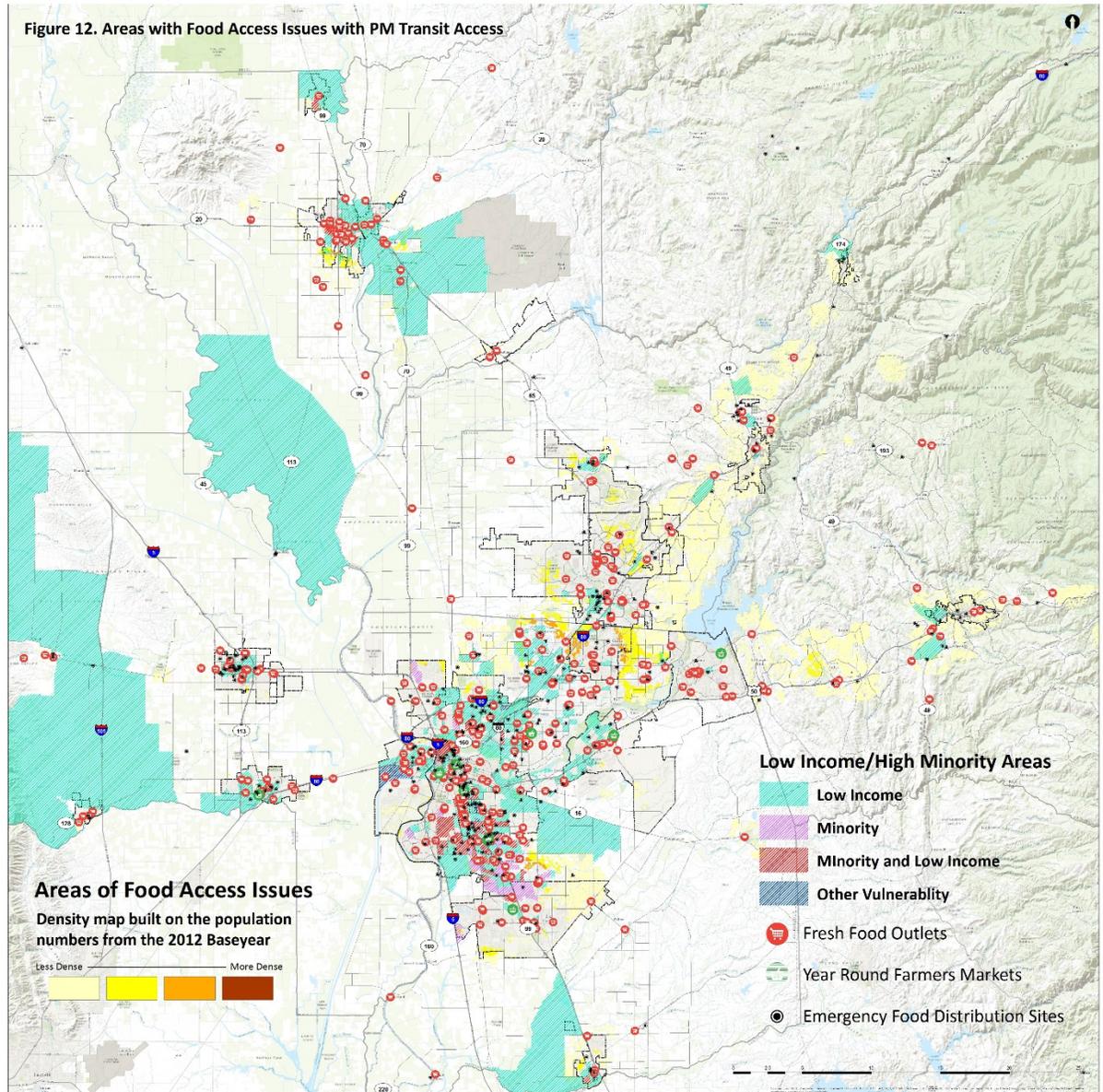
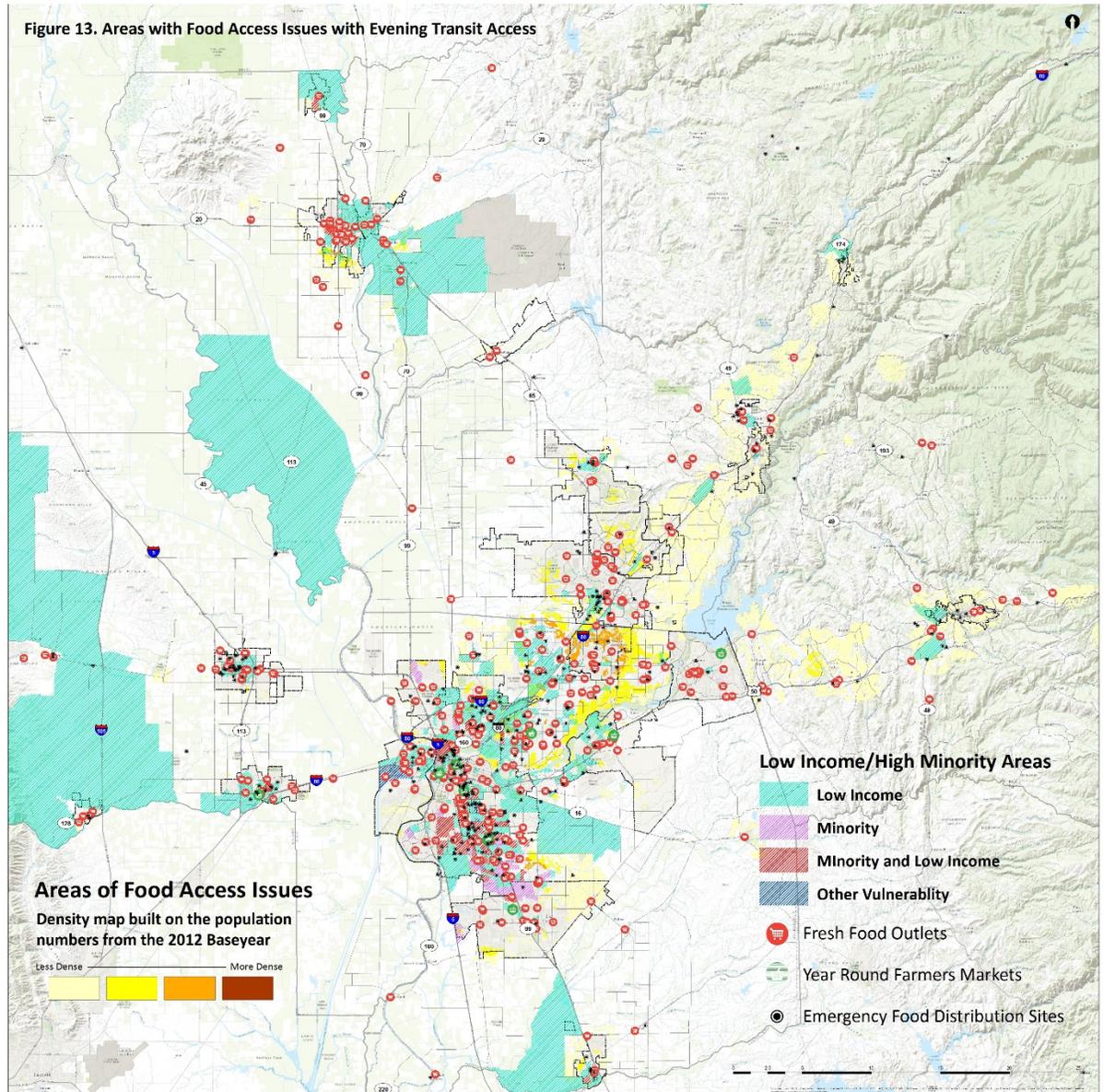


Figure 13. Areas with Food Access Issues with Evening Transit Access



Current Work

SACOG was an active participant in the development of the Sacramento Region Food System Action Plan, contributing maps, input and guidance as part of the Champions Advisory Committee.

To help support local food production and access, SACOG has been working with Code for America and the City of West Sacramento on piloting an online database to link interested urban farmers with landowners who have sites that might be used for urban farming. The pilot also includes a web platform to help farmers publicize their farm stands that sell to the general public.

Through its SGC grant funding, SACOG has also continued its work on the feasibility and infrastructure needed for one or more regional food hubs to aggregate, store, process and distribute different types of locally grown crops for different types of customers across the region, including retailers and emergency food outlets.

Next Steps

Food System Action Plan goals include:

- Ensure the viability of the food and agriculture economy at all scales.
- Increase the amount of locally-grown food distributed to the regional food system.
- Increase access to fresh, healthy produce, especially in underserved communities.

To help further these goals, SACOG staff is continuing to work with Valley Vision and the Sacramento Food Bank on using Phase II maps to consider where enhancements or additions to food distribution sites in Sacramento might be made to increase access, and where refrigeration capacity may exist to store fresh produce prior to distribution to emergency or other food outlets.

SACOG also intends to share this Phase II analysis and revised maps with additional stakeholders. The refined databases and maps will likely be used for numerous purposes, including to:

- Help local food advocates ground-truth neighborhoods identified as “low access” and further hone the analysis to identify whether/where barriers are related to the availability of fresh foods, transportation access, nutrition education, and/or other factors.
- Inform planning for public transportation and bike/pedestrian infrastructure improvements for areas that still show insufficient or problematic transportation access to existing fresh food outlets.

- Assess a variety of strategies to address food desert areas refined through this and further local analysis. Strategies could include: mobile food trucks that offer residents regular opportunities to buy produce and fresh foods at neighborhood locations such as schools or community centers; encouraging greater supply of fresh foods through existing small retailers, building on lessons from healthy neighborhood/corner store initiatives in Sacramento and other localities; and/or assessing the potential for local policies and programs to incentivize neighborhood grocery stores/fresh food outlets in food desert areas.

SACOG staff also plan to share with the USDA our more refined food desert analysis, and identify/discuss opportunities for more federal or other support for the next steps and implementation efforts described in this report.