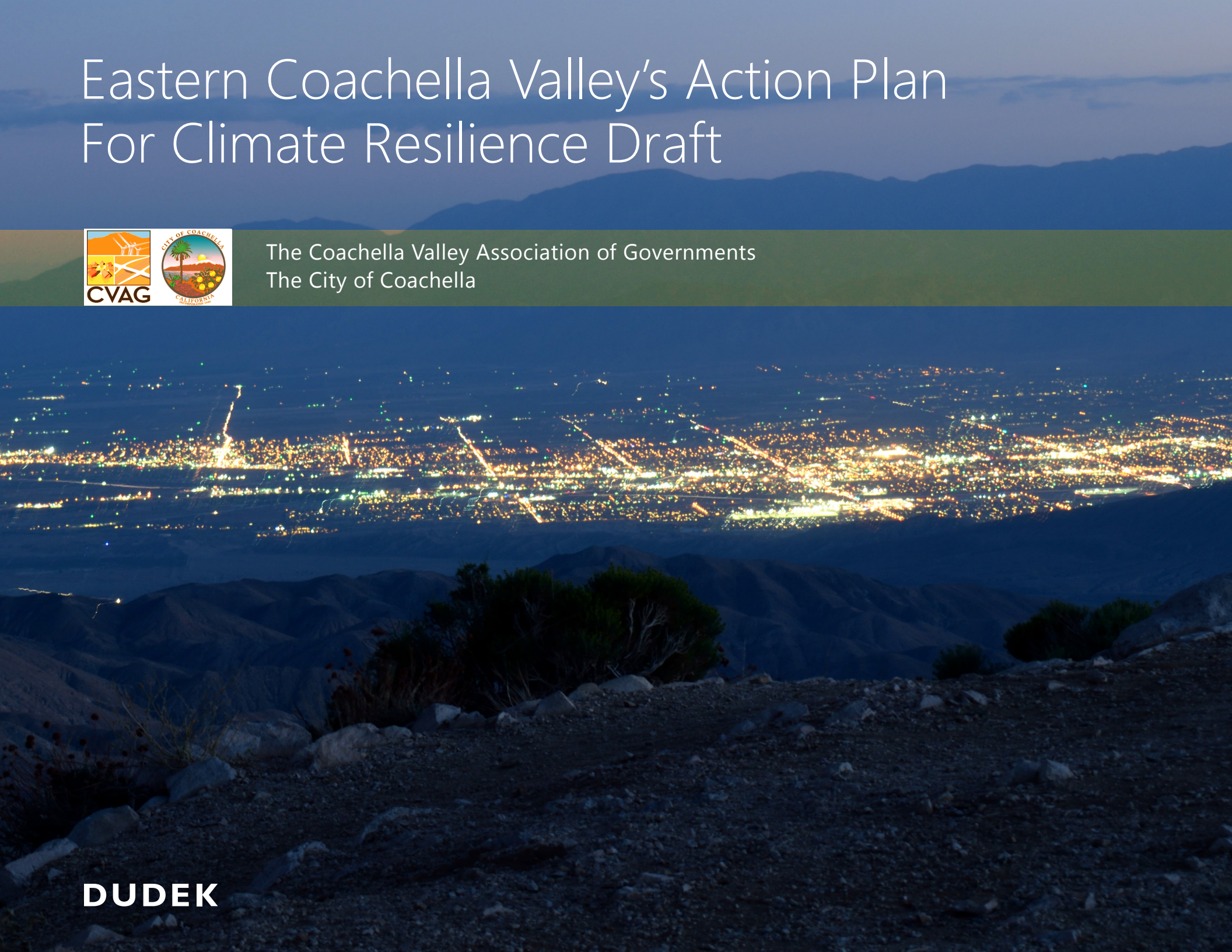
Eastern Coachella Valley's Action Plan For Climate Resilience Draft

The Coachella Valley Association of Governments
The City of Coachella



DUDEK

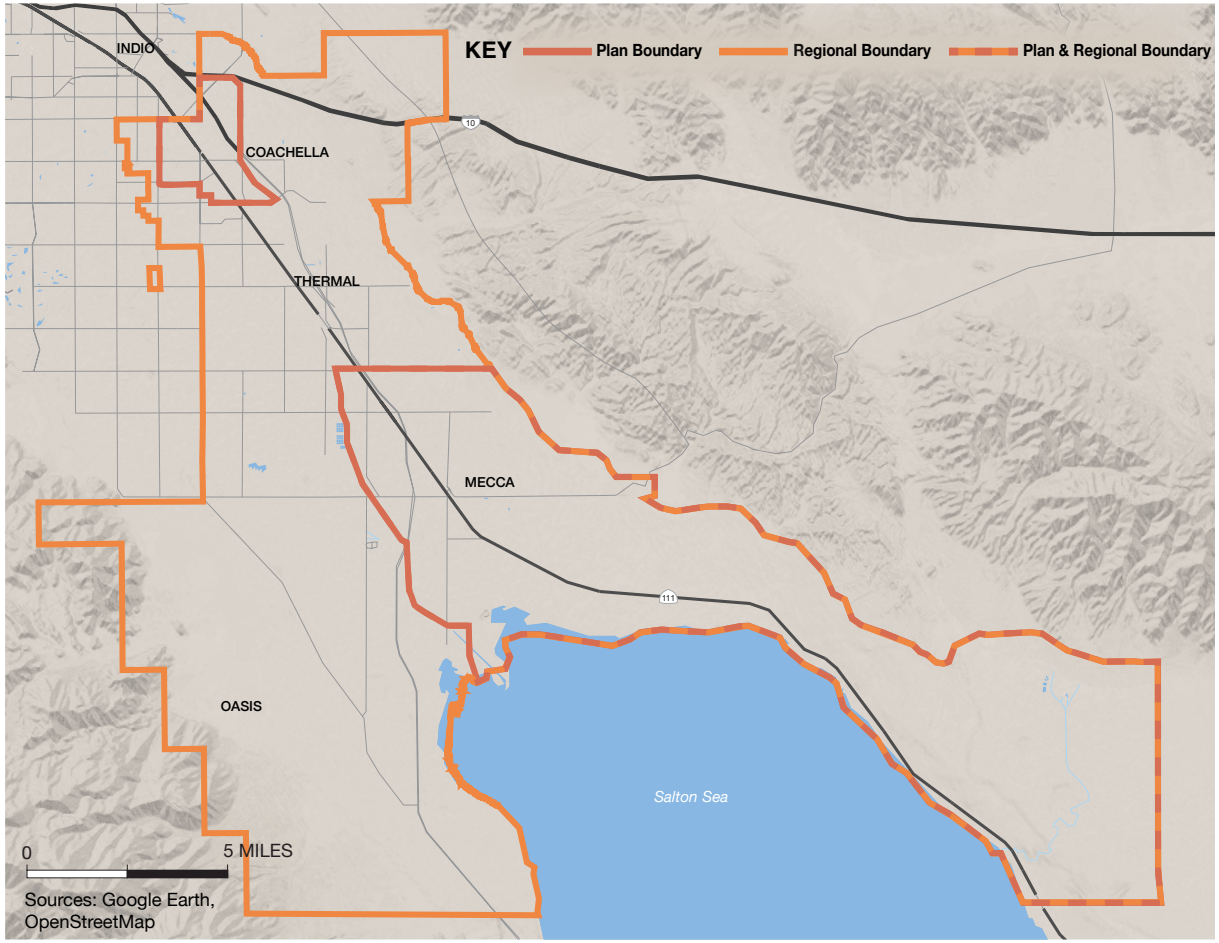
intentionally left blank

Purpose

The Eastern Coachella Valley Climate Action Plan for Climate Resilience (Action Plan) is a roadmap to identify and prioritize projects that **increase climate resilience, reduce greenhouse gases** (GHGs) **and provide equitable access to housing**. The Action Plan outlines community supported projects that are competitive for cap and trade funding to further the three goals of the Action Plan. This Action Plan aligns past planning efforts with grant requirements to identify community goals, current climate vulnerabilities and current projects to capitalize on. The Plan also assesses some of the gaps in existing plans and policies and includes guidance as to how to ensure inclusion of and responsiveness to disadvantaged communities. This Action Plan also takes an in-depth look at five grants (described below) and provides kick-off guides to support local agencies in identifying grant-eligible projects and beginning the application processes. The Action Plan was developed as a part of a Transformative Climate Communities (TCC) grant that was awarded in 2018 to the Coachella Valley Association of Governments (CVAG) and City of Coachella. The Action Plan includes the following chapters:

1 Introduction

This chapter describes the plan area, the applicable grants associated with cap-and-trade funding, other relevant sources of funding and the key agencies that have jurisdiction over the relevant planning efforts revived for this plan.



Plan Area

The Action Plan focuses on the entire eastern Coachella Valley with an emphasis on the census tracts in the City of Coachella and the unincorporated communities of Mecca and North Shore that qualify as a disadvantaged community (DAC) in the Communities Environmental Health Screening Tool (CalEnviroScreen) 3.0, but also includes communities that are integral to the ecological, economic, and cultural fabric of the eastern Coachella Valley, Thermal and Oasis. The mapping tool CalEnviroScreen is a common tool used to determine if a community is disadvantaged; CalEnviroScreen measures the cumulative impact of social vulnerabilities (such as poverty or English language proficiency) and pollution burden (such as air quality and proximity to hazardous waste sites). DACs usually have lower incomes and higher levels of pollution than the rest of the state (see Chapter 3 [Existing Plan Evaluation and Findings]) (ILG 2018a). CalEnviroScreen does not measure impacts from climate change, such as exposure to extreme heat. The City of Coachella and the communities of Mecca and North Shore represent the census tracts that are considered disadvantaged and are eligible for cap and trade funding. However, because of the region's interconnectivity, the Action Plan also reflects communities of Thermal and Oasis. Figure 1 shows the project area and specific census tracts that are included in the Plan and will be discussed in this chapter.

Climate Resiliency

Climate resiliency is a community's ability to respond to climate change impacts and hazards and thrive in a changing environment.

Grants

Cap and trade generates between two and three billion dollars a year through the carbon credit auctions. All revenue from cap and trade must fund programs that reduce greenhouse gases (GHGs). Additionally, 35% of the state portion revenue must be used to benefit disadvantaged communities (DACs), which are communities that suffer most from health, economic and environmental harms. DACs usually have lower incomes and higher levels of pollution than the rest of the state (see Chapter 3) (ILG 2018a). Many of these funds are administered by various state agencies through competitive grant programs that public and not-profit agencies in the eastern Coachella Valley are eligible to apply for.

Five funding sources were identified as part of this Action Plan. These grants represent programs that the region is most likely to win. These grants were chosen because they best align with the region's planning goals, the priorities and the needs identified through community outreach. Additionally, these grants represent the four major sustainability themes: affordable housing, transportation, carbon capture and natural resources.

Affordable Housing and Sustainable Communities Program (AHSC)

The Affordable Housing and Sustainable Communities Program (AHSC) is a competitive grant program that funds affordable housing loans. All funded projects must reduce GHG emissions through a reduction in vehicle miles traveled (VMTs) or fewer, shorter auto-trips by providing affordable housing near jobs and daily needs. Projects must include at least one transportation station with a focus on sustainable transportation infrastructure and alternative transportation options such as walking, biking or transit (ILG 2018b). AHSC projects can include urban greening that makes the community more resilient to heat and air quality impacts from climate change by cleaning the air and cooling the environment. Urban greening in AHSC projects can be included in the GHG reduction credits for the direct carbon capture and energy savings from cooling the surrounding area and reducing the need for air-conditioning. The inclusion of urban greening into AHSC grants an help increase quality of life in eastern Coachella Valley communities and create habitat for local wildlife which includes pollinators that help our environment and agriculture thrive.

Sustainable Agricultural Land Conservation

The Sustainable Agriculture Lands Conservation (SALC) Program provides grants to projects protecting agricultural lands through strategic planning and agricultural easements to avoid land conversion and sequester carbon. Other project benefits can include increased local food security, flood protection and ground water recharge. The SALC Program funds planning and implementation efforts. Competitive applications focus on protecting highly productive agricultural land under threat of conversion to non-agricultural uses (ILG 2018c).

Transformative Climate Communities Implementation Grant

The TCC Implementation Grant program is designed to fund community-led projects in DACs statewide. TCC Implementation Grant funded projects can include a wide range of activities, but must meet the following six transformative requirements:

1. **Significantly reduce GHG emissions and provide other community benefits**
2. **Avoid the displacement of existing households and small businesses**
3. **Ensure community engagement**
4. **Leverage funding**
5. **Climate adaptation and resilience**
6. **Workforce and economic development**

The first two rounds of TCC Implementation Grants included a geographic requirement. At least 51% of a project area must overlap with a census tract that scores in the top 5% of CalEnviroScreen. CalEnviroScreen 3.0 (the most current version) does not designate any communities in the plan area as scoring in the top 5%; however, changes in future versions of the TCC guidelines or to the grant requirements may qualify eastern Coachella Valley communities for these programs (SGC 2018).

Urban Greening

The Urban Greening Grant funds projects that use natural solutions to improve air quality and water quality, reduce indoor cooling demand and create more walkable and bikeable environments. Urban greening grants are well suited to increase climate resilience by reducing impacts from air quality, extreme heat and flooding. Urban greening can be used to shade sidewalks and buildings, provide stormwater retention in areas prone to flooding and clean the air near busy roadways. Urban greening projects can include new parks, open space, trails and green streets (ILG 2018d). Agencies in the eastern Coachella Valley have previously been successful at winning Urban Greening Grants.

Active Transportation Program

The Active Transportation Program (ATP) funds projects that increase the use of active transportation. ATP is not solely funded through cap and trade; however, the goals and requirements are closely linked to those in other cap and trade grant programs. The goals of ATP include increasing the proportion of walking and biking trips, increasing safety for non-motorized users, reducing GHG emissions, enhancing public health, benefitting DACs and providing a broad spectrum of uses (Caltrans 2019). CV Link, which will serve as the backbone multi-modal route for the entire Coachella Valley, was one of the largest ATP projects funded since the program began. Green infrastructure, including flood protection and urban greening, should be included in ATP projects where appropriate.

OTHER FUNDING SOURCES

Emerging Greenhouse Gas Reduction Fund (GGRF) Goals

Funds from the Greenhouse Gas Reduction Fund (GGRF) are granted to programs and projects that reduce greenhouse gas emissions and benefit disadvantaged communities, low-income communities, and low-income households. Projects that qualify for use of GGRF funds catalyze increased affordable housing availability, improved variety and access to transportation options, energy and water reduction and resulting savings, and greener communities (CCI 2019). GGRF grants increase climate resiliency by improving the availability of adequate housing to stay cool in extreme heat and providing transportation infrastructure that makes walking, biking and public transit viable commuting options.

Low Carbon Transit Operations Program (LCTOP)

The Low Carbon Transit Operation Program (LCTOP) provides grant assistance for transit projects to reduce greenhouse gas emissions and improve mobility in disadvantaged communities. Qualifying projects support the expansion and maintenance of bus and rail systems and intermodal transit facilities (State of California 2018). LCTOP grants can increase climate resiliency by creating more efficient and available transit options for community members, reducing greenhouse gas emissions and providing the community with increased overall mobility.

Low Income Weatherization Program (LIWP)

The Low Income Weatherization Program (LIWP) outfits low-income households and communities with energy-efficient upgrades and solar energy production units at no cost to the residents. LIWP projects focus on reducing greenhouse gas emissions and generating clean energy through solar power, and as a result improve climate resiliency through lowering the cost of living for residents and increasing air quality in low-income communities (State of California 2015).

Water-Energy Grant Program

The Water-Energy Grant Program funds projects that reduce GHGs by reducing water use. Eligible projects include water efficiency programs and projects benefitting DACs. A project benefitting a DAC could increase water supply, reduce utility cost, or increase employment training (DWR 2016). Water- energy grants can increase climate resiliency by decreasing the cost to deliver water and protecting the water supply during drought events.

Key Agencies

The plan area is served by multiple land use and transit agencies, each of which have multiple planning documents outlining the future of the region, providing land use regulation and provisioning of local services. The key agencies in the region are the City of Coachella, Riverside County (including Mecca, North Shore, Oasis and Thermal), Sunline Transit Agency (Sunline) and CVAG.

LOCAL AGENCIES

City of Coachella

The City of Coachella is responsible for land use and zoning decisions inside city limits. This includes where homes and business should be located in the city, how tall and dense development can be and the design of streets.

Riverside County

Riverside County is responsible for land use and zoning in unincorporated communities. An unincorporated community does not have a mayor or city council but does have a community council and County Supervisor. The unincorporated communities in the planning area are Mecca, North Shore, Thermal and Oasis.

Sunline Transit Agency

Sunline is the sole provider of transit and commute service to the Coachella Valley. Sunline operates the regional bus service, curb-to-curb service to seniors and people with disabilities and facilitates alternative commutes such as biking and vanpools. Sunline also offers programs for employers and free passes to College of the Desert East Valley Campus. Sunline is a leader in the transportation industry with its development and implementation of clean and efficient technology. It was the first transit agency to convert its entire fleet from diesel to compressed natural gas and put the first fuel cell bus into service in 2000.

Coachella Valley Association of Governments

CVAG is the regional joint powers authority for eastern Riverside County. CVAG assists in providing technical assistance with common issues in the Coachella Valley, such as transportation, energy and natural resources. CVAG is the lead agency on the Active Transportation Plan, Regional Traffic Signal Synchronization Program and many other regional efforts.

intentionally left blank

2 Community Engagement

This chapter details community engagement strategies and input received from residents. It discusses both general and community-specific priorities from data collected in surveys throughout the eastern Coachella Valley. Recommendations are outlined in the context of identified relevant grants and areas that best suit the grant requirements and align with the priorities of the community."

Community Engagement Strategy

For a community transformation project to be truly effective, it must reflect the hopes, dreams and wishes of the people who live and work in the community. The community engagement strategy was designed to meaningfully engage and learn from a broad set of eastern Coachella Valley community members throughout the planning process from initial priority identification through review of draft documents prior to plan completion. The strategy also included partnerships with other local non-profit organizations, agencies and stakeholders to ensure collaboration and implementation of projects that will meet multiple community needs while also adapting to climate change. The outreach plan primarily focused on conducting neighborhood meetings and door-to-door engagement; however, it also included outreach to schools and faith-based organizations, non-profit groups and outreach on social media to increase public awareness of the planning efforts. Through outreach efforts, community members identified common problems, areas of opportunity, key priorities and potential projects that could be funded through Transformative Climate Communities (TCC), other California Climate Investment programs and other federal, state or local funding sources.

Community Engagement Materials and Events

The community engagement efforts included a wide range of materials and strategies to ensure holistic and comprehensive input from the community. Several of these tactics and strategies are below and are included as a reference for some of the materials utilized. These materials are included in Appendix A, Community Outreach Materials.

Educational and Informational Material

The outreach included developing and sharing education materials throughout the planning period to keep residents and stakeholders updated and engaged on the planning process and its progress. Outreach materials consisted of flyers, fact sheets, infographics, brochures, maps, summaries of regional plans, summaries of the draft plan and other relevant print materials that were designed to engage community residents in the TCC planning grant process from beginning to end. The educational and informational materials were presented in English and Spanish to engage the diverse audience of the eastern Coachella Valley.

Community Meetings

The City of Coachella (City) conducted meetings in the City while Leadership Counsel for Justice and Accountability (Leadership Counsel) hosted community meetings in the unincorporated communities of Thermal, Oasis, Mecca and North Shore. These meetings were held throughout the planning period, starting in fall 2018 and continuing through summer 2019. Community members from throughout the region participated in presentations about the program, were briefed about TCC implementation projects in other communities that received TCC funding and were encouraged to share what the most important priorities in their communities were and how TCC funding should be used in the eastern Coachella Valley.

These community meetings were conducted in the primary language of the audience, at convenient locations within each community and at convenient times for residents to be able to effectively participate. Food and translation services were available to provide a safe and comfortable space to allow for meaningful and robust engagement. Throughout these meetings, residents expressed skepticism of past planning processes and were hopeful that this planning effort would be more fruitful.

Targeted Meetings

Leadership Counsel held additional targeted outreach meetings in an attempt to explore the specific needs of older adults and youth at the Mecca Senior Center, Thermal Senior Center and Coffee with the Principal at Desert Mirage High School. These were held over the winter of 2019 and focused on the specific needs of seniors and students. These additional meetings stemmed from feedback at the first community meetings held in fall 2018, at which residents expressed the need for increased engagement with senior citizens and youth from local schools and community colleges. Additionally, Leadership Counsel provided presentations and regular updates at the Thermal and Oasis Community Council, the Mecca and North Shore Community Council and the Housing Review Committee. Updates on the plan were also provided at community workshops for the Mecca and North Shore Mobility Plan, the Low Carbon Transportation incentives workshop, the Environmental Justice Enforcement Task force, the Union de Polancos, Indio Campus College of Desert and the Affordable Housing and Sustainable Communities workshop hosted by the City.

Door-to-Door Outreach

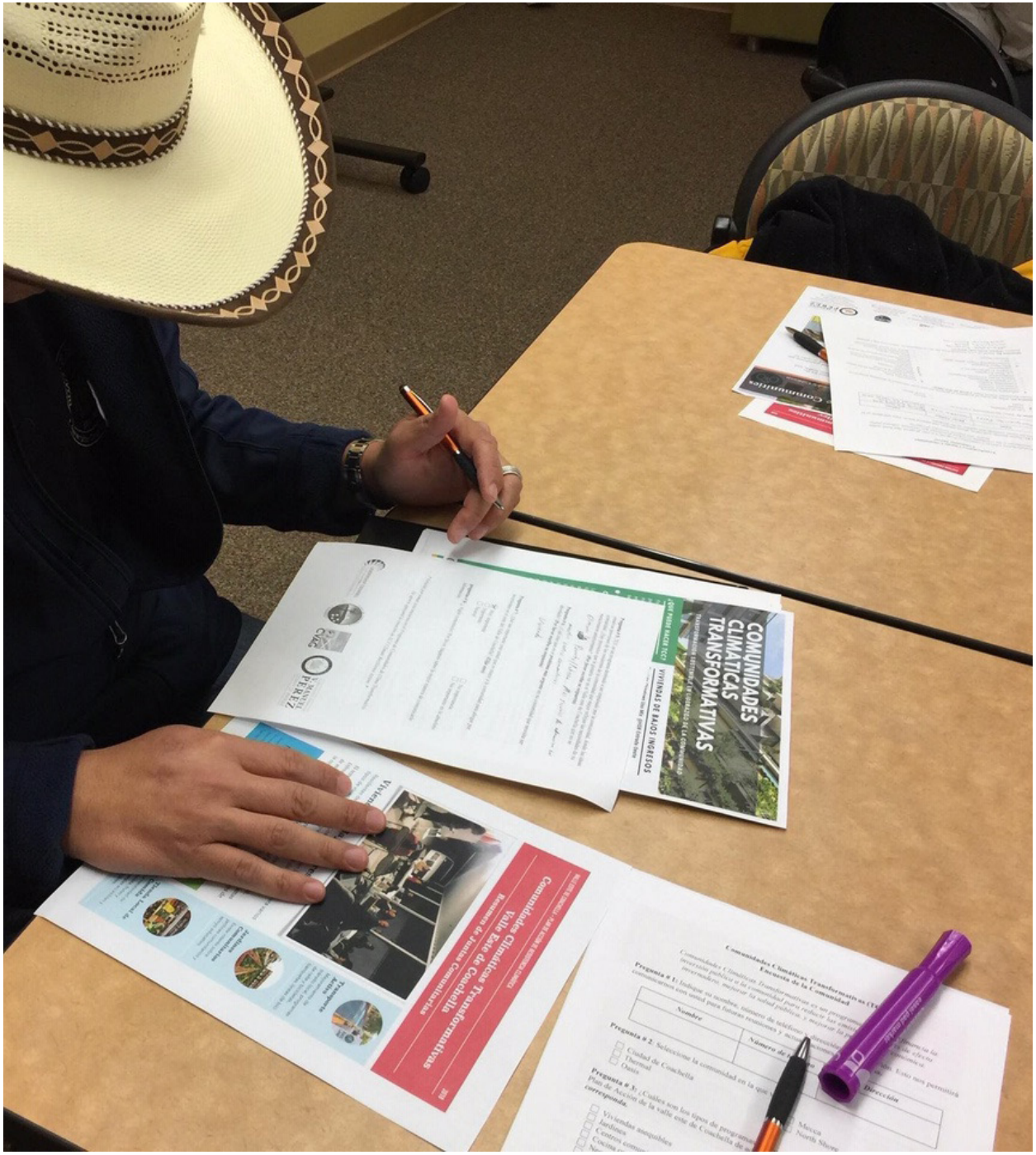
Door-to-door outreach started in November 2018 in Thermal, Oasis, Mecca and North Shore. Since the initiation of the grant period, Leadership Counsel knocked on 500 doors and talked to 210 residents over the phone, and has continuously learned about specific community concerns, needs and priorities. To complement the door-to-door outreach and engagement, phone calls were conducted to residents who Leadership Counsel has previously worked with to provide updates and personally invite them to upcoming meetings and events related to TCC.

Regional Convening

On February 9, 2019, Leadership Counsel, Coachella Valley Association of Governments, the City of Coachella and Riverside County Supervisor V. Manuel Perez co-hosted a Regional Convening at the Mecca library to engage residents in interactive planning activities around TCC opportunities. This gathering was organized to provide more substance and depth on the topic and provide residents and stakeholders the opportunity to actively plan for projects and priorities in their respective communities. Extensive outreach was done in the City and unincorporated areas to encourage attendance, including public service announcements in Spanish and a news story aired on the local television station. The Regional Convening included a TCC Gallery Walk, mapping and sharing of personal experiences. The convening was hosted in Spanish, with translation services provided for monolingual English speakers. Lunch was served for participants, which was prepared by a community leader from North Shore.

Social Media

Leadership Counsel used social media to promote community meetings and promote the supplemental survey Leadership Counsel created for greater community feedback. Sharing to existing community groups on Facebook and creating community events on Facebook was a successful strategy in reaching larger networks of residents and stakeholders. Twitter and Instagram were also used to share information and pictures of the TCC outreach efforts in the community. Community leaders who work closely with Leadership Counsel also shared information through their own social media networks to further expand engagement.



Methods for Receiving Community Input

Community members provided significant feedback outlining their priority concerns and areas for opportunities in their communities. Community feedback was gathered primarily by using a survey, mapping activities, and a gallery walk.

Surveys

Leadership Counsel developed a survey to gather community input and feedback from residents in each of the communities. Surveys were distributed during community meetings and spread throughout social media platforms to reach residents who may not have been able to attend the outreach events. Survey questions helped identify community priorities, pressing issues, potential TCC implementation projects and additional project ideas not specifically listed in survey questions.

Mapping Activities

The Regional Convening included a mapping activity to identify specific priority projects. Participants grouped themselves with others from the five communities included in the plan. Each group was given area maps and identified specific areas in their neighborhoods they thought may benefit from grant funding. Residents recorded their ideas for specific community improvements, which were compiled into master maps. Many of these ideas helped identify key corridors that need improved infrastructure like sidewalks, curb and gutter, street lighting and crosswalks. Others identified empty lots of land suitable for community parks, community centers, affordable housing complexes and more. These maps are presented in the section Community Specific Outreach below.

TCC Gallery Walk

The Regional Convening also included a TCC gallery walk with five different galleries focused on the opportunity areas of affordable housing, active and public transportation, urban greening and parks, water and wastewater infrastructure and additional cap-and-trade related opportunities. Residents were given sticker dots to place on the posters to identify the projects that they felt were an important need in their community. Participants visited each station, each of which had a facilitator who helped guide residents in the discussion. This activity helped shape and guide the conversations and planning activities that residents later had during the convening.

Results

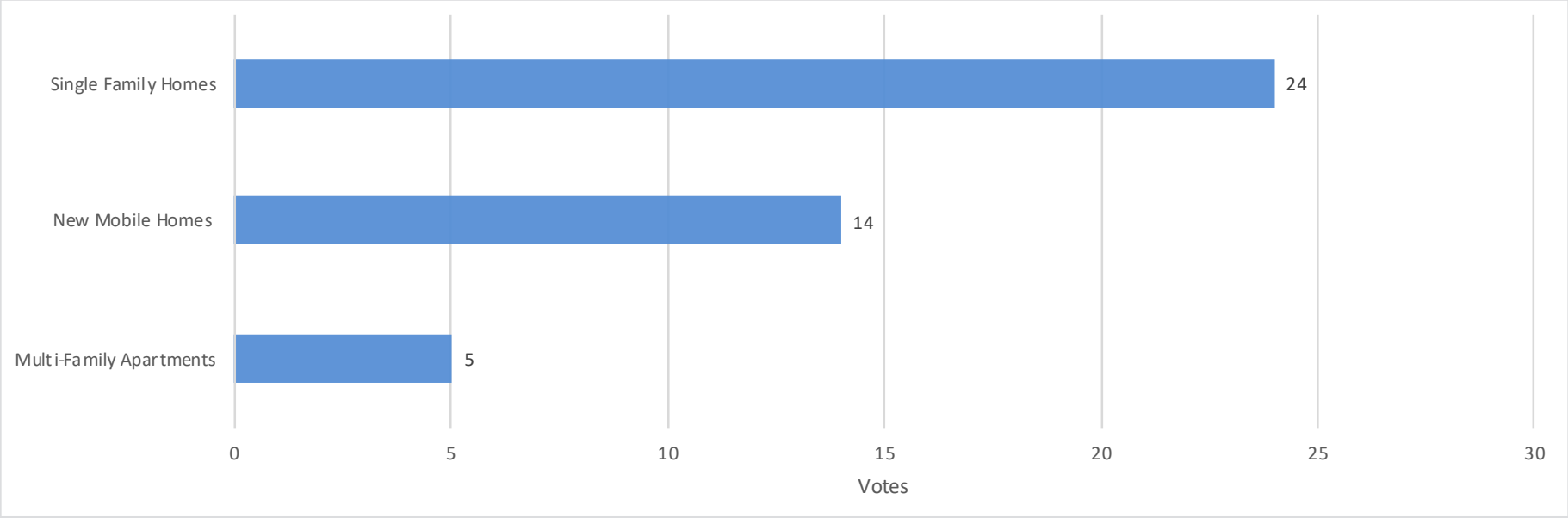
Significant community feedback was obtained during meetings with respect to priority concerns, and opportunities and feedback were sought through the primary mechanisms of community meetings, surveys, mapping activities and a gallery walk.

Affordable Housing

Community members had a wide range of concerns about the affordable housing stock in the eastern Coachella Valley. Mobile home parks make up most of the affordable housing in the region, many of which cannot withstand climate-related hazards such as extreme heat or floods due to a lack of infrastructure. Within the unincorporated region specifically, Polanco parks (i.e., small mobile home parks of 14 units or less) are the most prevalent housing option for residents, particularly farmworkers. Given the entrepreneurial, small-family-business characteristic of most Polanco parks, these communities struggle to sustain themselves in a way that sufficiently and safely provides the necessary accommodations for residents. Mobile homes are most often in dilapidated conditions and residents are unable to use their energy efficiently; the mobile homes often leak during heavy rain and are susceptible to air pollution entering the homes. Those who reside in Polanco parks and mobile homes highlighted the need for financial assistance in meeting Riverside County standards, weatherization and rehabilitation programs.

Community members also felt that new affordable housing should match the existing character of the eastern Coachella Valley. Because the region is primarily single-story structures, some residents were hesitant to support a dense, apartment-style affordable housing development, as they were concerned it would not be appropriate for the rural area. Residents also felt that affordable housing projects should be located near transit and other services. Figure 2-1 outlines the priorities for affordable housing from the Regional Convening gallery walk.

Figure 2-1. Affordable Housing Station, Regional Convening Gallery Walk

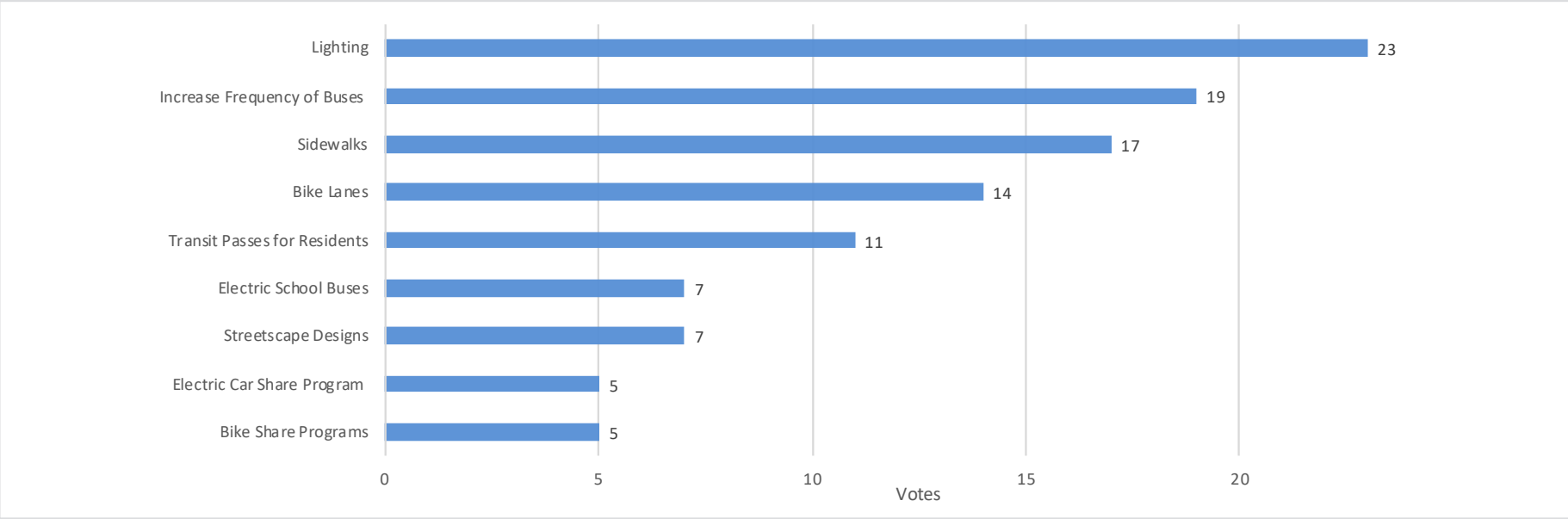


Lack of Transportation Infrastructure

Eastern Coachella Valley residents consistently voiced concerns about the need for improved transportation infrastructure, particularly about providing bicycle, pedestrian and transit infrastructure in their communities. Given the rural characteristics of the eastern Coachella Valley, active transportation and supporting infrastructure are extremely limited. There are very few sidewalks in the communities and many roads are unpaved. The limited lighting, crosswalks and speeding cars make residents feel unsafe walking or biking in their communities. The Coachella Valley has an all-too-frequent rate of accidents involving cyclists and pedestrians, and many people feel that these infrastructure deficiencies need to be addressed in order to increase the active transportation culture in the region.

In addition, residents who rely on public transit for mobility suggested improving transit routes to increase the frequency of buses, as well as improving safety around bus stops so that residents could reach them more easily. This includes enhanced supporting infrastructure like shade structures and benches. In addition, residents have identified potential pilot projects that can help increase mobility and promote healthy lifestyles while simultaneously reducing greenhouse gas emissions and improving the local air quality. These projects include bike-share programs and enhanced active transportation infrastructure throughout the region. Residents have also identified the benefit in replacing public buses and school buses with electric fleets, but also developing smaller rideshare programs with electric vehicles to help the region reduce air pollution, improve public health and better fight climate change. Figure 2-2 outlines the transportation infrastructure priorities from the Regional Convening gallery

Figure 2-2. Transportation Station, Regional Convening Gallery Walk

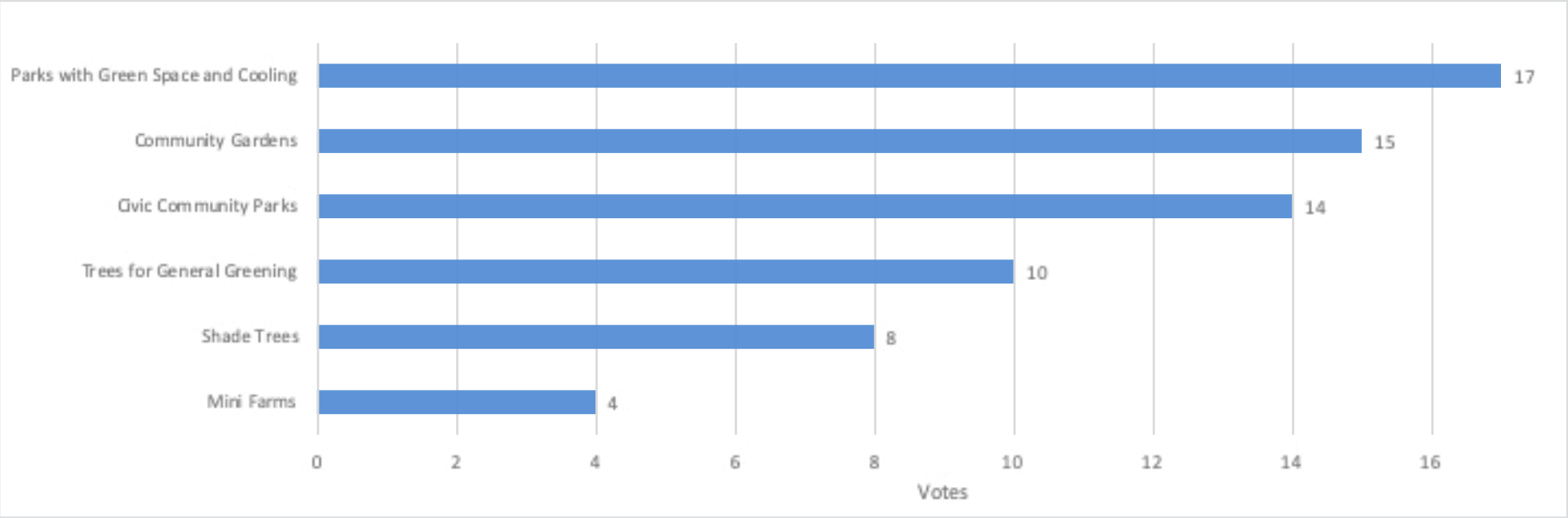


Urban Greening

The eastern Coachella Valley is a desert region that experiences very high temperatures all year. As temperatures consistently exceed 100°F during the summer, residents expressed a need for increased access to parks and other urban greening opportunities that could address concerns about air quality, extreme heat and access to healthy food through community gardens. When residents were asked about specific project ideas, urban greening was often suggested as a potential TCC implementation project to make the entire community more resilient to climate change and assist in providing habitat for wildlife, and more specifically for pollinators. For example, community residents expressed great interest in seeing more trees along main roadways as an aesthetic and enjoyable community asset, but also as a helpful tactic in creating traffic-calming measures with a high volume of pedestrians and people biking.

Parks with green space and civic parks are a top priority for residents as there are communities in the eastern Coachella Valley that lack open green spaces for public use. Whether it is large civic parks for the enjoyment of the community or small pocket parks that promote green space, the urban greening opportunity for the community is a priority with the potential to provide multiple benefits to residents. Figure 2-3 outlines the urban greening priorities from the Regional Convening gallery walk.

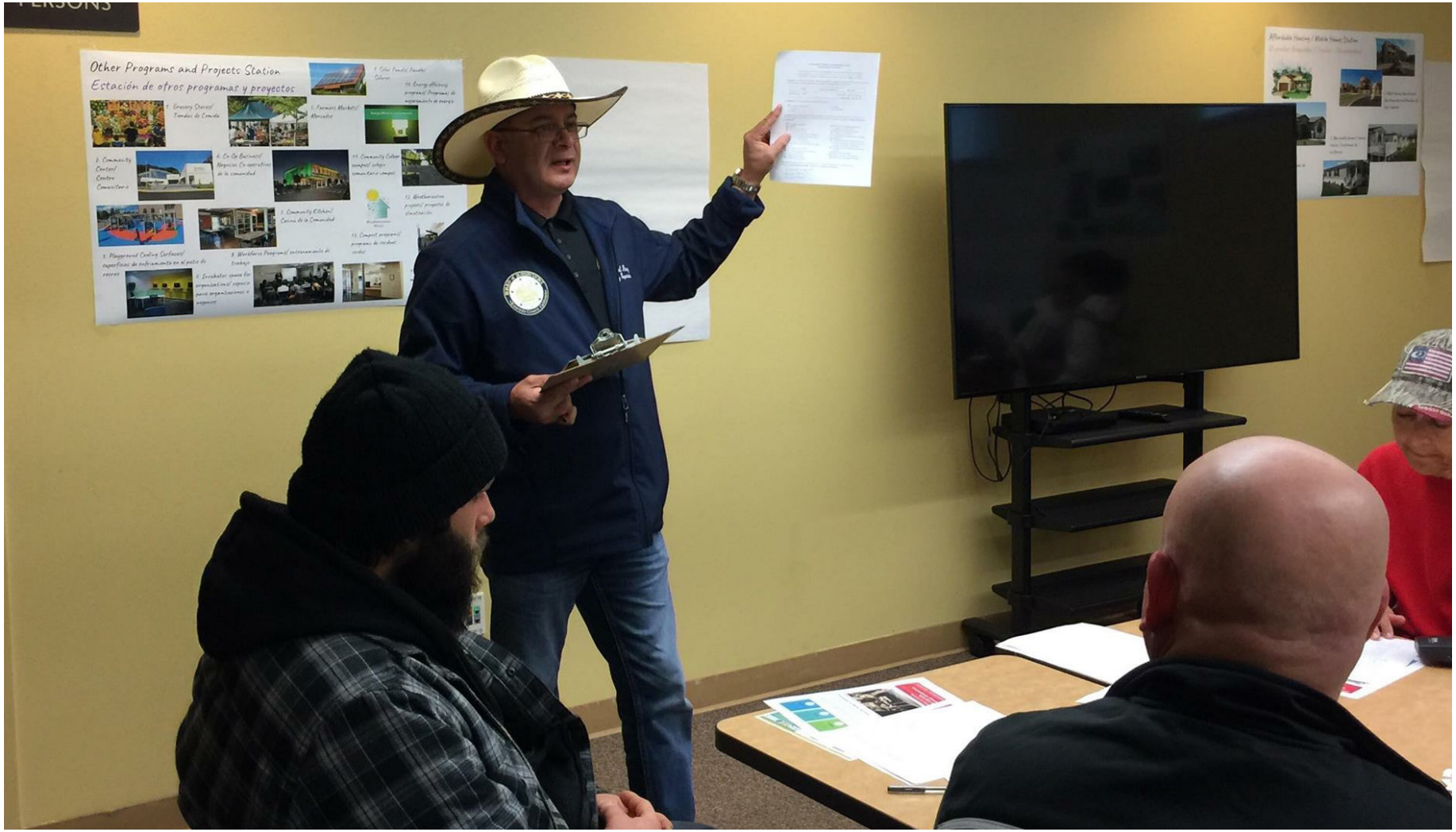
Figure 2-3. Urban Greening Station, Regional Convening Gallery Walk



Basic Infrastructure, Environmental Health and Climate Resilience

Survey and meeting participants highlighted the need for basic infrastructure to support other identified priorities and support the long-term sustainability of their communities. In addition to transportation-related infrastructure, basic infrastructure included water and wastewater services and stormwater and flood protection infrastructure.

Several community members also highlighted the need for projects and programs to improve air quality, including addressing Salton Sea impacts and improving air monitoring networks.



Community Specific Recommendations

This plan focuses on providing specific project recommendations for each community (as presented in Chapter 7, Community Project Recommendations). To ensure that each community has recommendations specific to its needs, the survey and mapping activities were analyzed for each specific community

City of Coachella

Outreach Summary

City residents were primarily concerned about a lack of affordable housing and diversity of housing options. Specifically, residents were interested in increasing affordable housing in areas with access to public transportation. Participants also wanted the ability to easily adapt their property to add "casitas" or "granny flats" in order to house their families or to rent them out for supplemental income. There was also a concern raised that housing developments designed for lower income populations have inconsistent income thresholds.

City residents also identified a need for urban greening, improvements to infrastructure and enhanced transit. Community parks and gardens were suggested as efforts to increase access to green spaces and revitalize communities. Projects that would increase access to grocery stores, create community centers and provide workforce training were also identified as concerns among residents for improving connectivity and development of their communities. As shown in **Figure 2-4**, housing, infrastructure, transit and urban greening were listed as the highest priorities for Coachella residents in the outreach survey.

Figure 2-4. City of Coachella Community Priorities

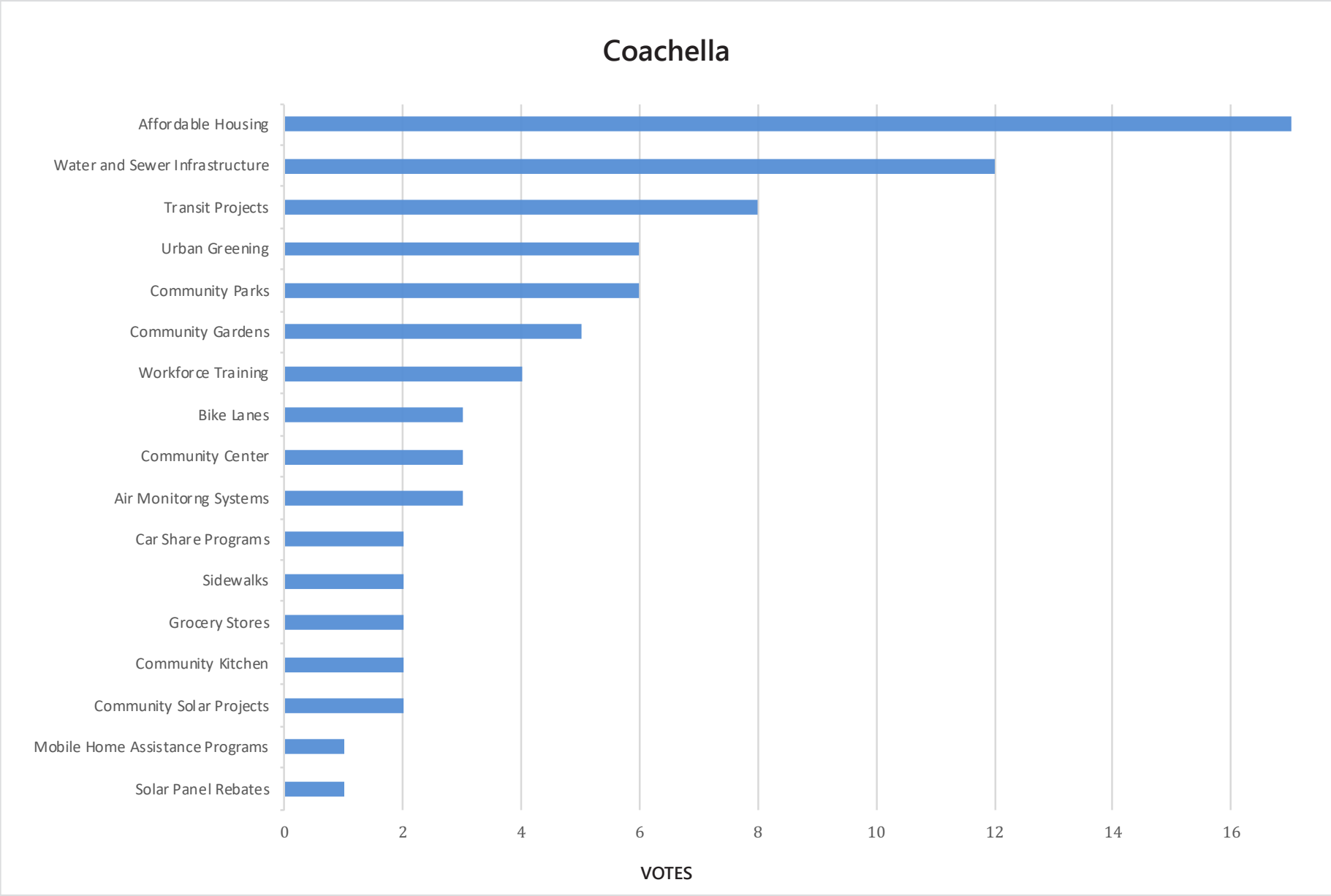


Figure 2-5. City of Coachella Community Priorities Breakdown

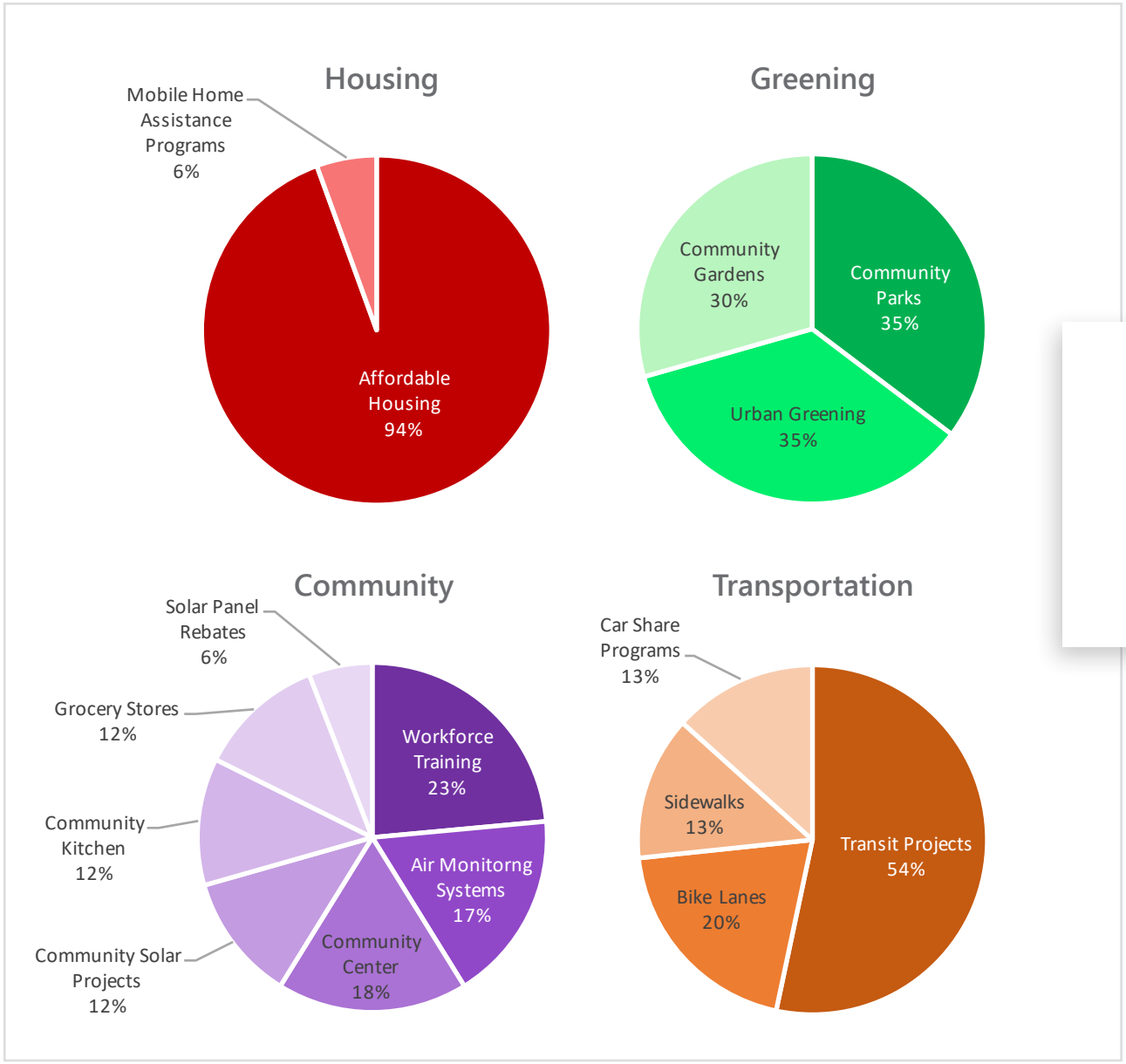
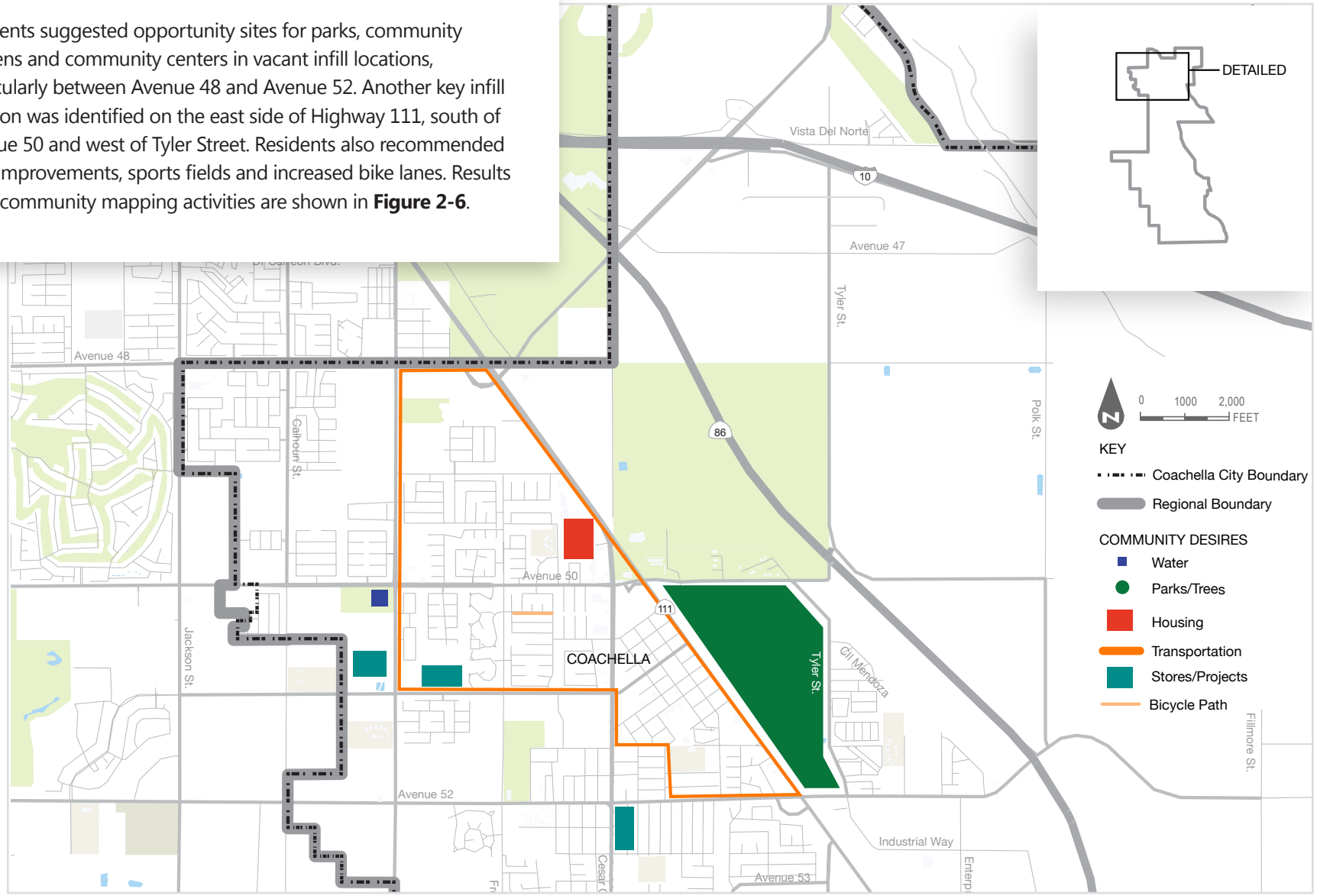


Figure 2-5 breaks down the data presented in **Figure 2-4** by the type of grants these projects are eligible for. As illustrated in **Figure 2-5**, when separated out by type of project, community members prioritized affordable housing, workforce training, parks and transit projects.

Location-Based Recommendations

Residents suggested opportunity sites for parks, community gardens and community centers in vacant infill locations, particularly between Avenue 48 and Avenue 52. Another key infill location was identified on the east side of Highway 111, south of Avenue 50 and west of Tyler Street. Residents also recommended park improvements, sports fields and increased bike lanes. Results from community mapping activities are shown in **Figure 2-6**.

Figure 2-6. City of Coachella Community Mapping



Mecca

Outreach Summary

Mecca residents were interested in improving the safety and convenience of transportation options in the eastern Coachella Valley. Specifically, residents were concerned about the accessibility of local bus stops for people with limited mobility and seeing more local transportation options, including fixed transit, flexible transit, ride-share, bike-share and active transportation infrastructure. Mecca residents expressed interest in a pilot bike-share program, an increased sidewalk network and transit connections or a shuttle based in Mecca to provide connectivity options to the entire Coachella Valley.

Community members thought projects should make Mecca safer, healthier and further develop community pride. Residents identified the need for a large civic park, wellness center, street and road maintenance, affordable grocery stores, sports complexes and adequate stormwater management. There was also interest in a community or non-profit center, job training, a local energy collective, community gardens, and a farmer's market. Urban greening along main roadways and local streets was identified as a way to revitalize neighborhoods and facilitate walkable neighborhoods that promote public safety. Additionally, residents suggest developing small "pocket parks" throughout community neighborhoods to increase access to green spaces and increase recreational opportunities.

Mecca residents were also interesting in having a range of affordable housing solutions, including mobile home improvements and financing.

Survey

As shown in **Figure 2-7**, the most pressing community priorities as identified in the survey include **sidewalks, housing and parks.**

Figure 2-7. Mecca Community Priorities

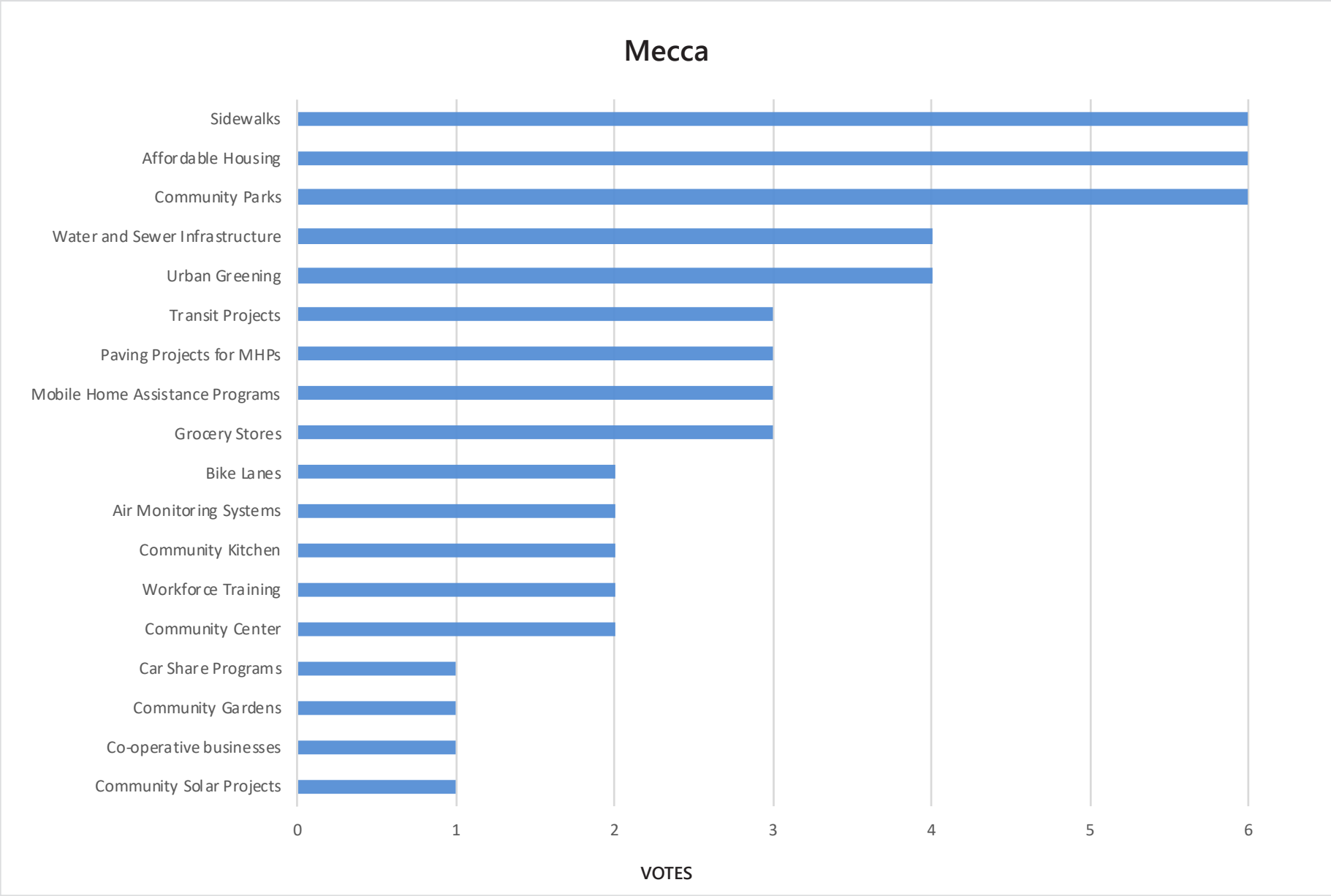


Figure 2-8. Mecca Community Priorities Breakdown

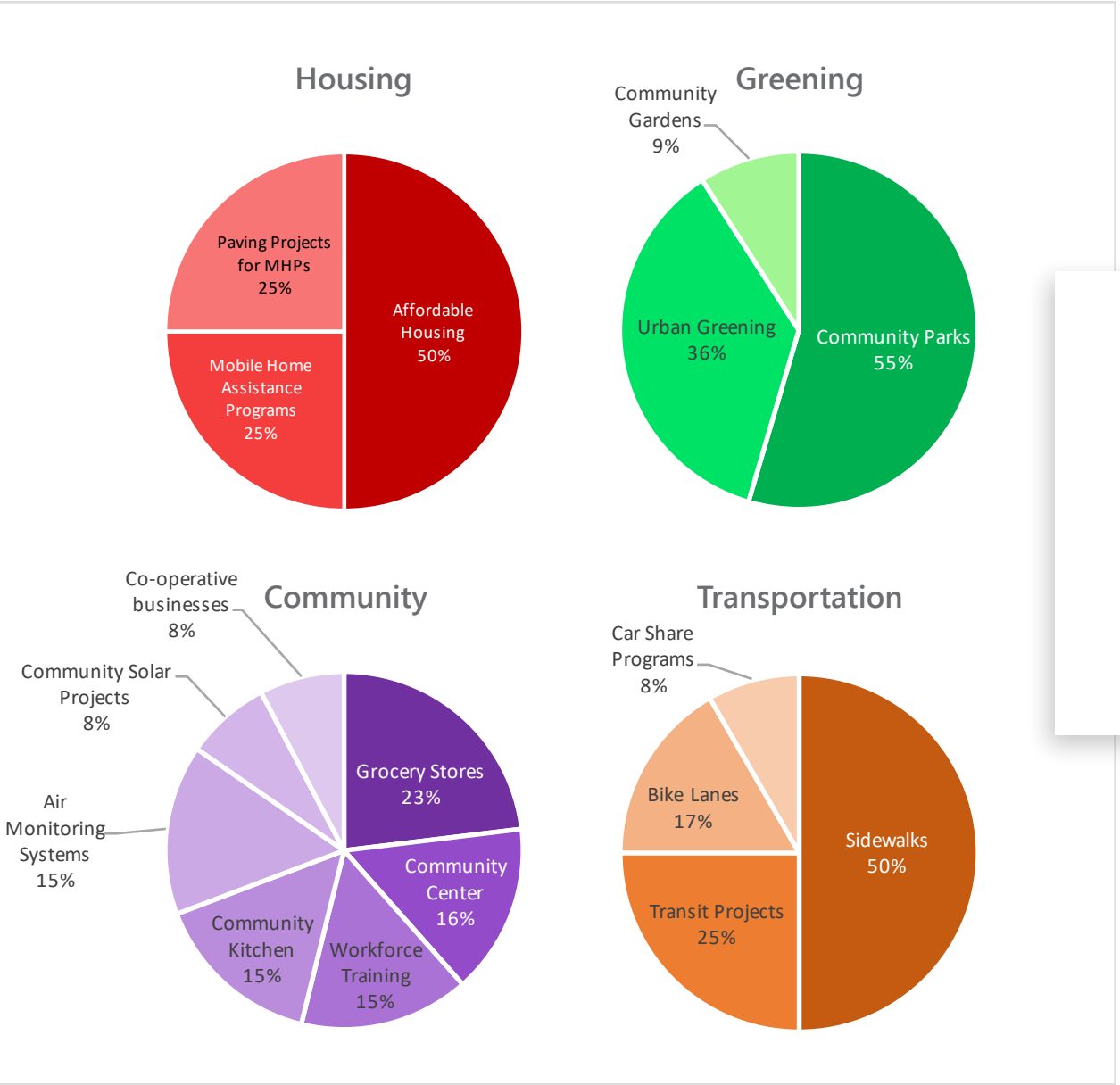
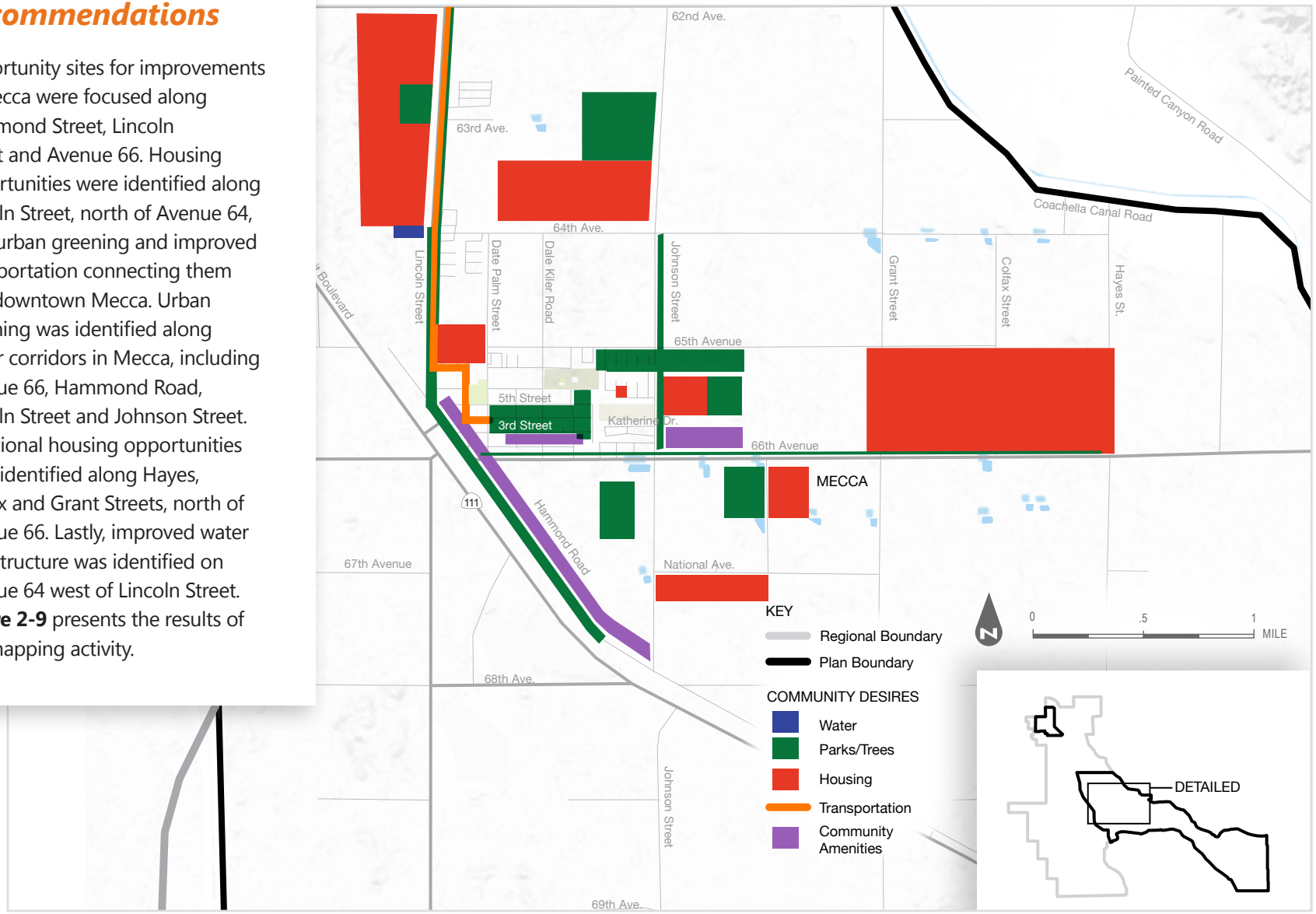


Figure 2-8 breaks down the data presented in **Figure 2-7** by the type of grants these projects are eligible for. Figure 2-8 shows frequent requests for better access to affordable housing among Mecca residents and the need for sidewalks among other transportation-related improvements. Community members generally identified several community-based needs as well, such as access to grocery stores and community parks.

Location-Based Recommendations

Opportunity sites for improvements in Mecca were focused along Hammond Street, Lincoln Street and Avenue 66. Housing opportunities were identified along Lincoln Street, north of Avenue 64, with urban greening and improved transportation connecting them into downtown Mecca. Urban greening was identified along major corridors in Mecca, including Avenue 66, Hammond Road, Lincoln Street and Johnson Street. Additional housing opportunities were identified along Hayes, Colfax and Grant Streets, north of Avenue 66. Lastly, improved water infrastructure was identified on Avenue 64 west of Lincoln Street. **Figure 2-9** presents the results of the mapping activity.

Figure 2-9. Mecca Community Mapping



North Shore

Outreach Summary

North Shore community residents were primarily concerned with access to healthy food, general public safety, public lighting, sewer and air pollution from the Salton Sea and nearby agricultural lands. Community residents saw TCC as an opportunity to beautify the community with improvements that also provide greenhouse gas reductions, especially through urban greening opportunities.

A new community park was severely damaged by flash flooding in 2018. As a result, community residents emphasized the need for flood protection for all projects. Additionally, residents identified the need for financial assistance through mobile home rehabilitation programs to improve conditions of existing mobile homes and the need to prioritize general affordable housing opportunities through the production of various housing types to fit the need of a growing population in North Shore.

Due to North Shore's geographic isolation, residents struggle accessing resources like grocery stores, parks, schools, health clinics, financial institutions and employment opportunities. Creating a walkable community with amenities and services nearby would help promote a sense of community, while also reducing greenhouse gas emissions by reducing vehicle-miles traveled.

Community members also felt that there are a limited number of routes into the community. There are currently two ways in and out of the community, but some residents indicated that it can be challenging or inconvenient if one route were to be temporarily inaccessible due to construction, flooding, or other unforeseeable issue. Community members also sought to improve access from the opposite side of the Highway 86 expressway.

Survey

As shown in **Figure 2-10**, **grocery stores, transit projects and air quality monitoring systems** issues are most important to North Shore residents.

Figure 2-10. North Shore Community Priorities

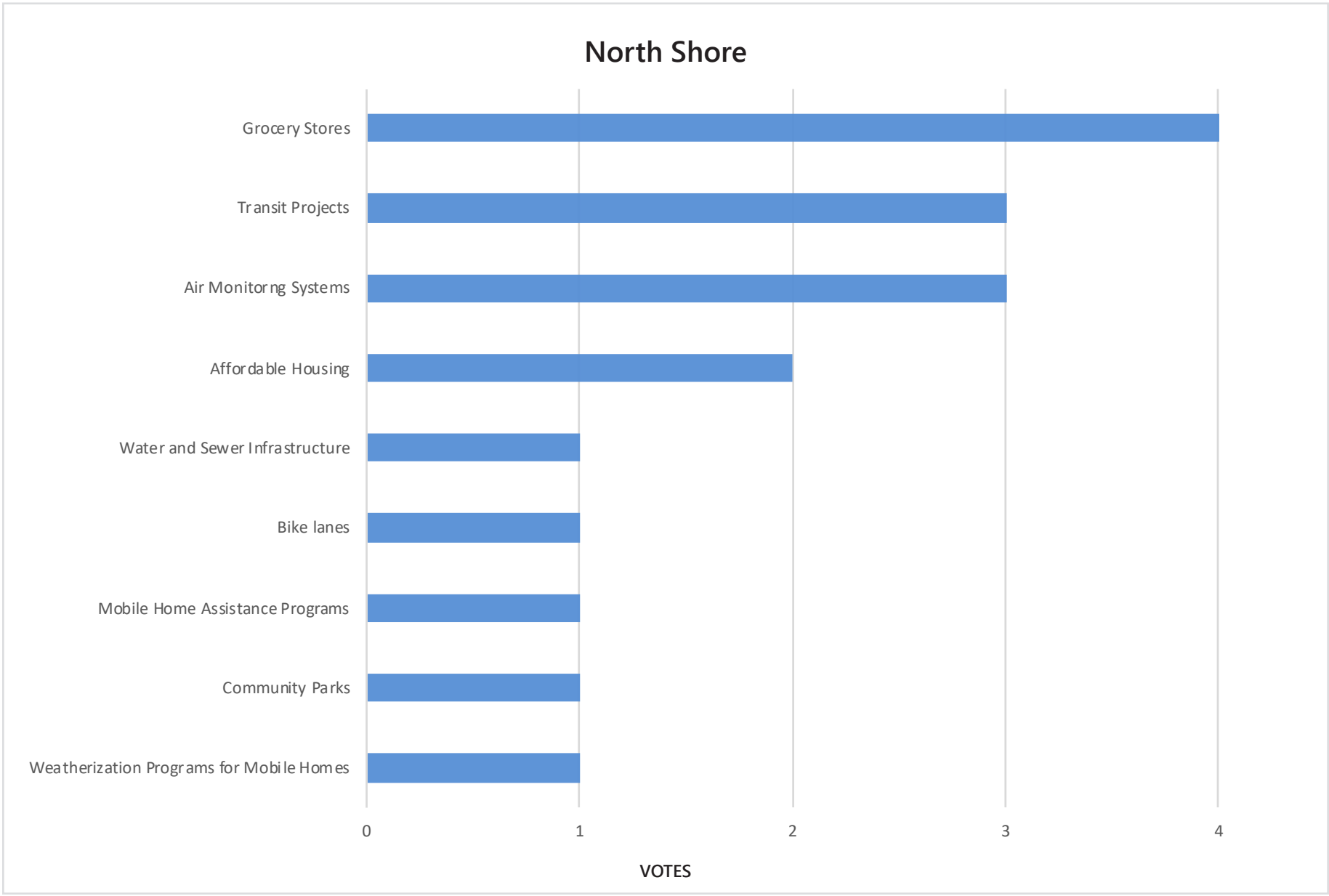


Figure 2-11. North Shore Community Priorities Breakdown

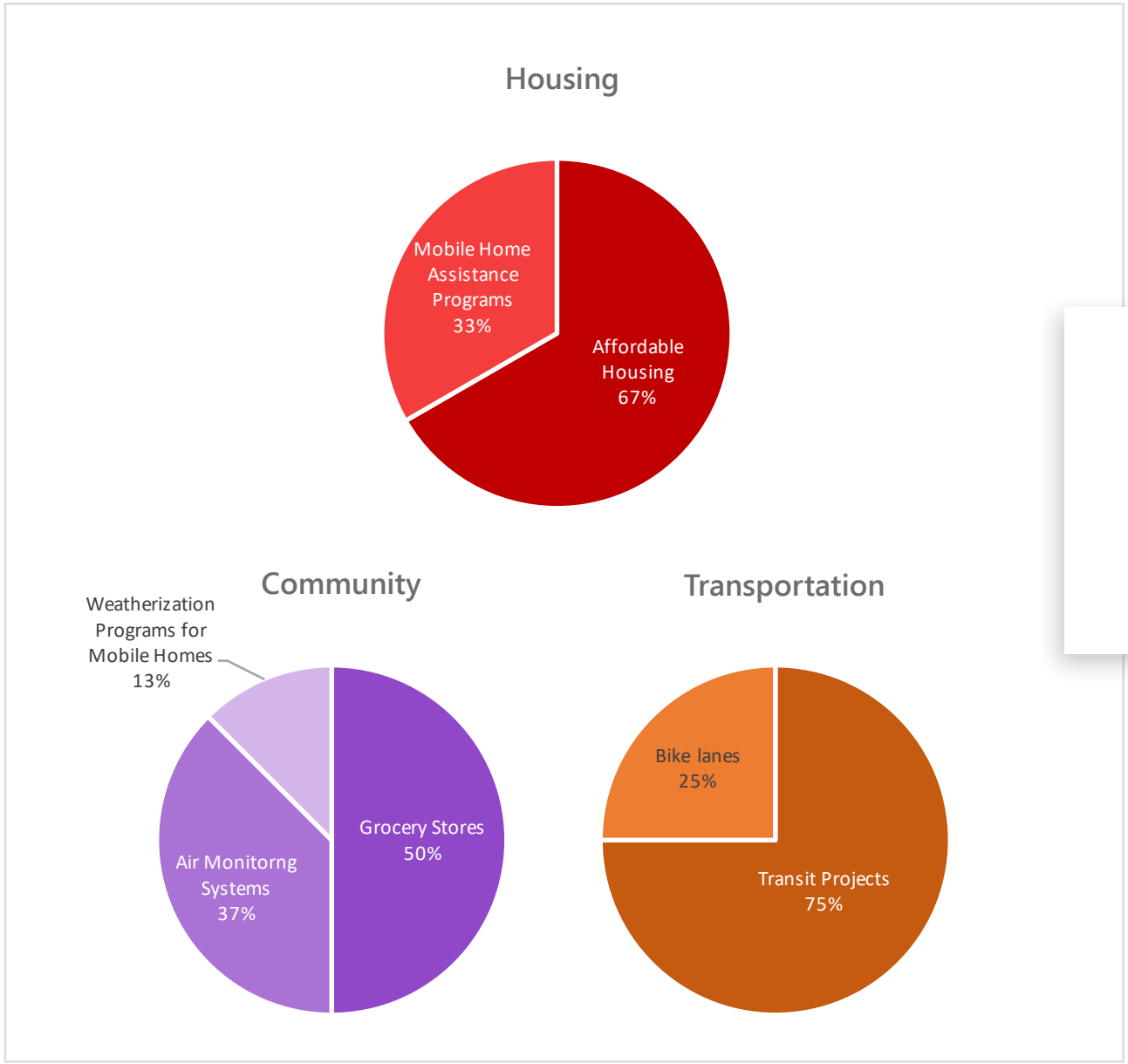
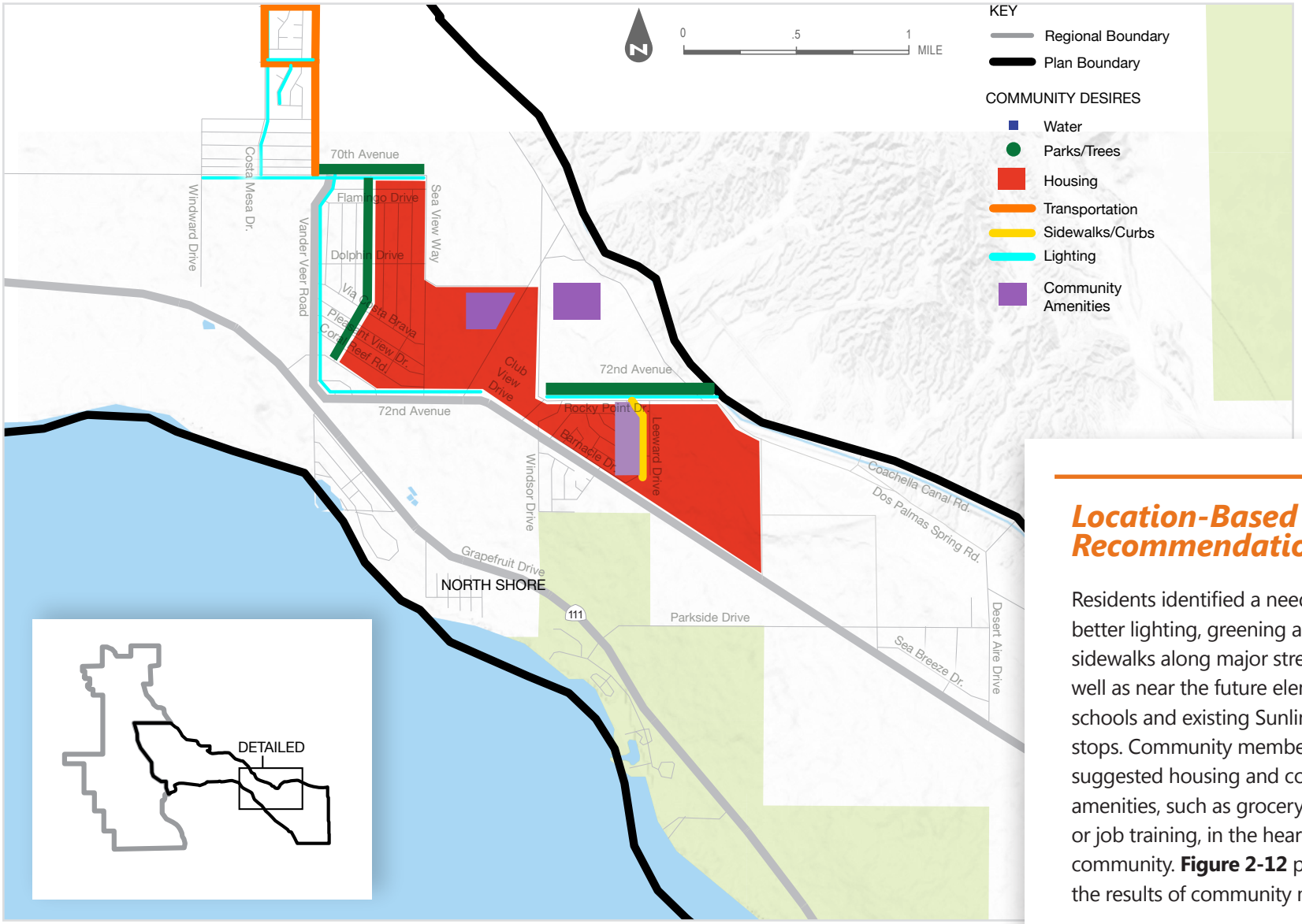


Figure 2-11 expands upon the data from F**igure 2-10,** showing the most importance being placed upon housing-related improvements, specifically access to affordable housing. The data from **Figure 2-11** also shows transportation infrastructure improvements as an important issue for North Shore residents.

Figure 2-12. North Shore Community Mapping



Location-Based Recommendations

Residents identified a need for better lighting, greening and sidewalks along major streets as well as near the future elementary schools and existing Sunline bus stops. Community members also suggested housing and community amenities, such as grocery stores or job training, in the heart of the community. **Figure 2-12** presents the results of community mapping.

Outreach Summary

Oasis community members were primarily concerned with the lack of infrastructure to sustain the existing affordable housing stock, particularly drinking water and wastewater infrastructure. As previously described, Oasis and Thermal have the largest concentration of Polanco parks, where substandard and dilapidated conditions are a primary concern. As a potential solution, residents suggested housing programs that financially assist residents in rehabilitating their mobile homes and provide weatherization assistance to conserve energy and reduce utility expenses. Additionally, residents expressed interest in community solar projects to reduce their monthly utility rates. Many of these mobile home parks are also serviced by contaminated and unreliable small water systems and private domestic wells for drinking water, while wastewater needs are serviced by septic systems that, if poorly maintained, may impact groundwater quality and create health risks for those living in mobile home parks. As shown in **Figure 2-13**, the top community priorities were the need for enhanced transit and improvements to water and wastewater infrastructure. An additional infrastructure deficiency is pavement within the mobile home parks. Insufficient paving in mobile home parks creates additional inconveniences to residents' daily lives. Heavy rain and flooding create obstacles for vehicles and pedestrians, while during dry seasons, unpaved roads lead to exposure to high levels of particulate matter, which impacts public health.

Oasis residents also expressed interest in improving pedestrian safety by promoting walkable neighborhoods and active transportation between local areas, for instance, to neighborhood markets such as Chapala Market, La Chicanita, schools and health clinics. Complementary to active transportation infrastructure, residents also identified the need for supporting infrastructure, including public lighting for increased visibility and public safety and improved bus stops with shade structures and benches.

Survey

As shown in **Figure 2-13,** residents expressed that **public transportation, water and sewer infrastructure and affordable housing** are the three most important issues in their community.

Figure 2-13. Oasis Community Priorities

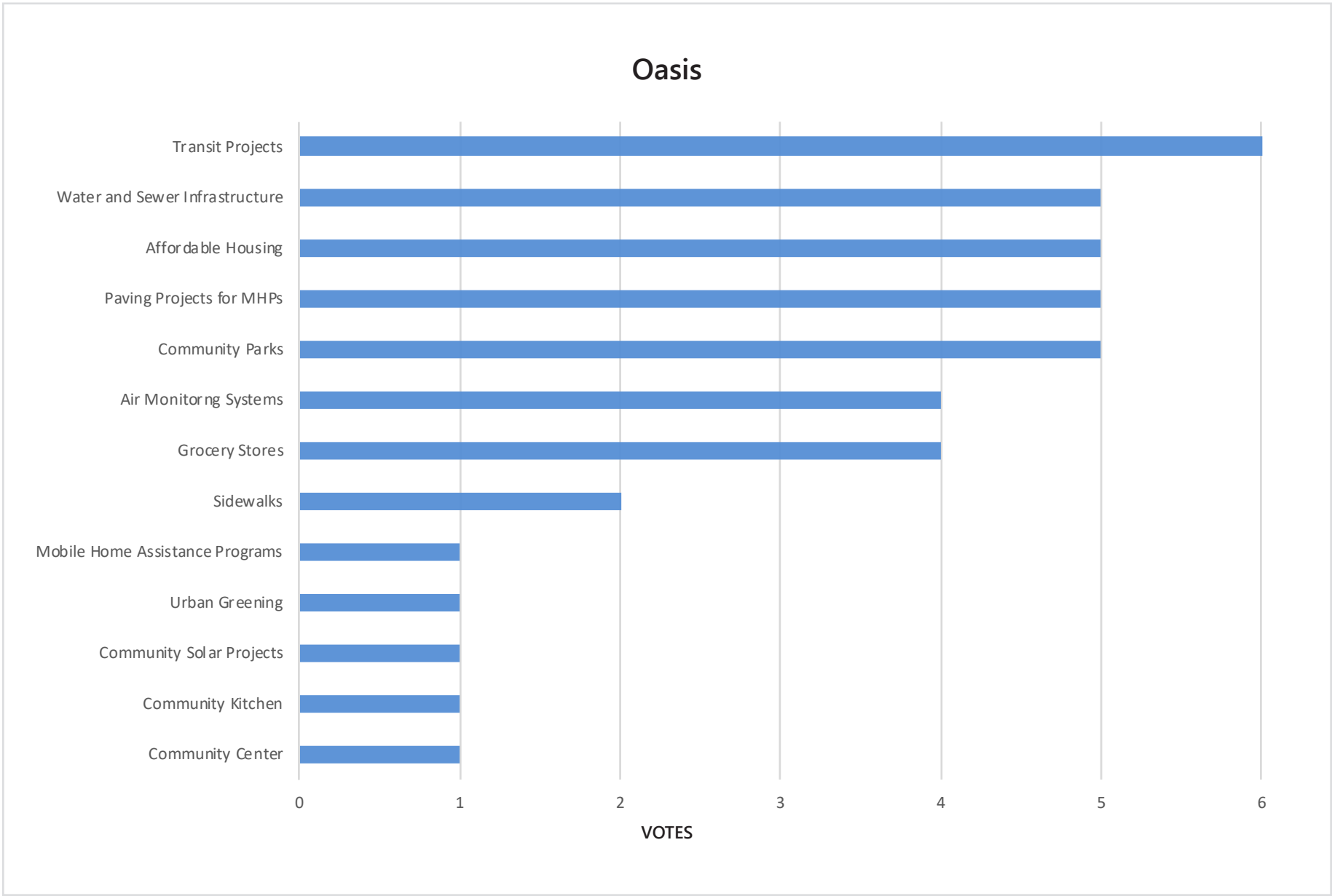


Figure 2-14. Oasis Community Priorities

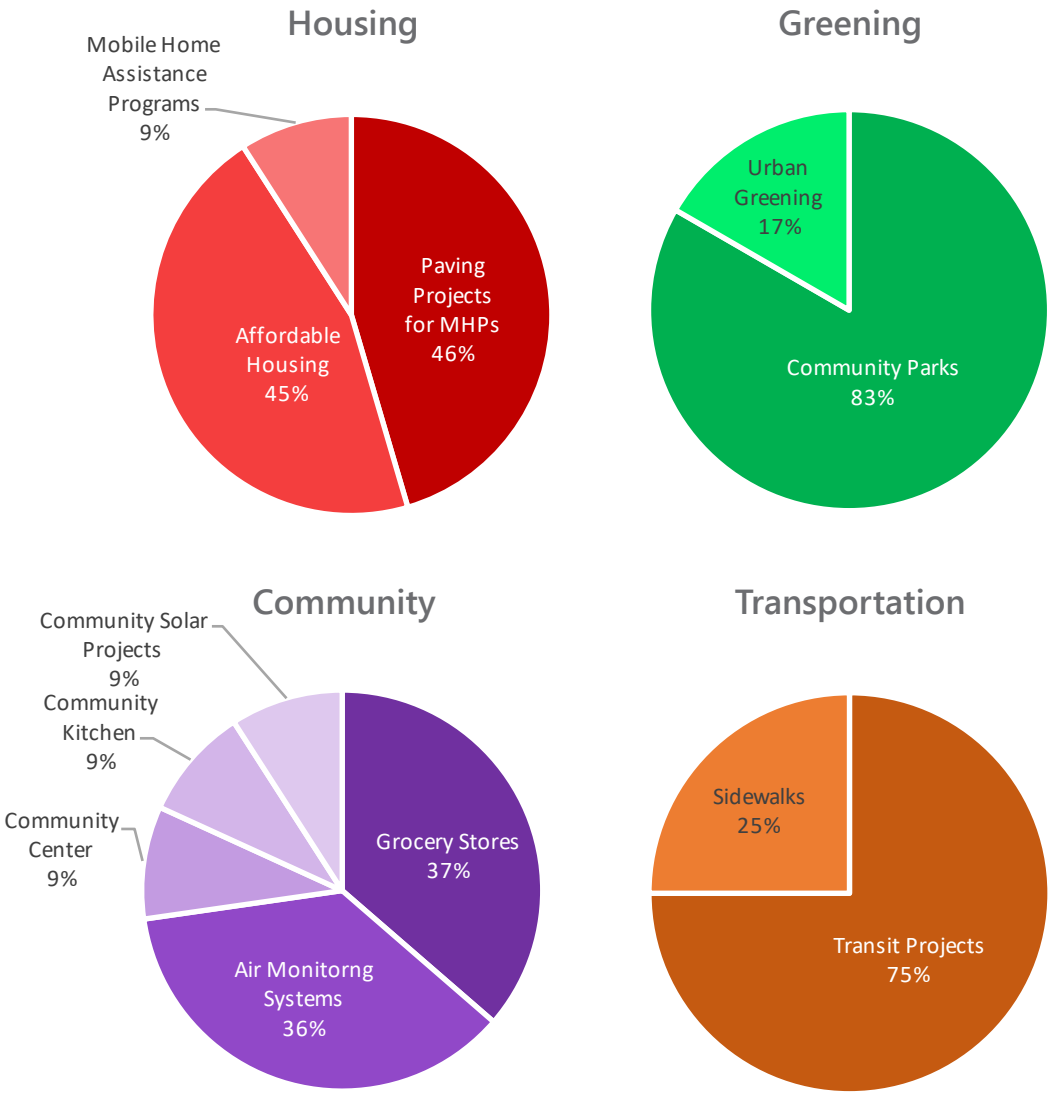
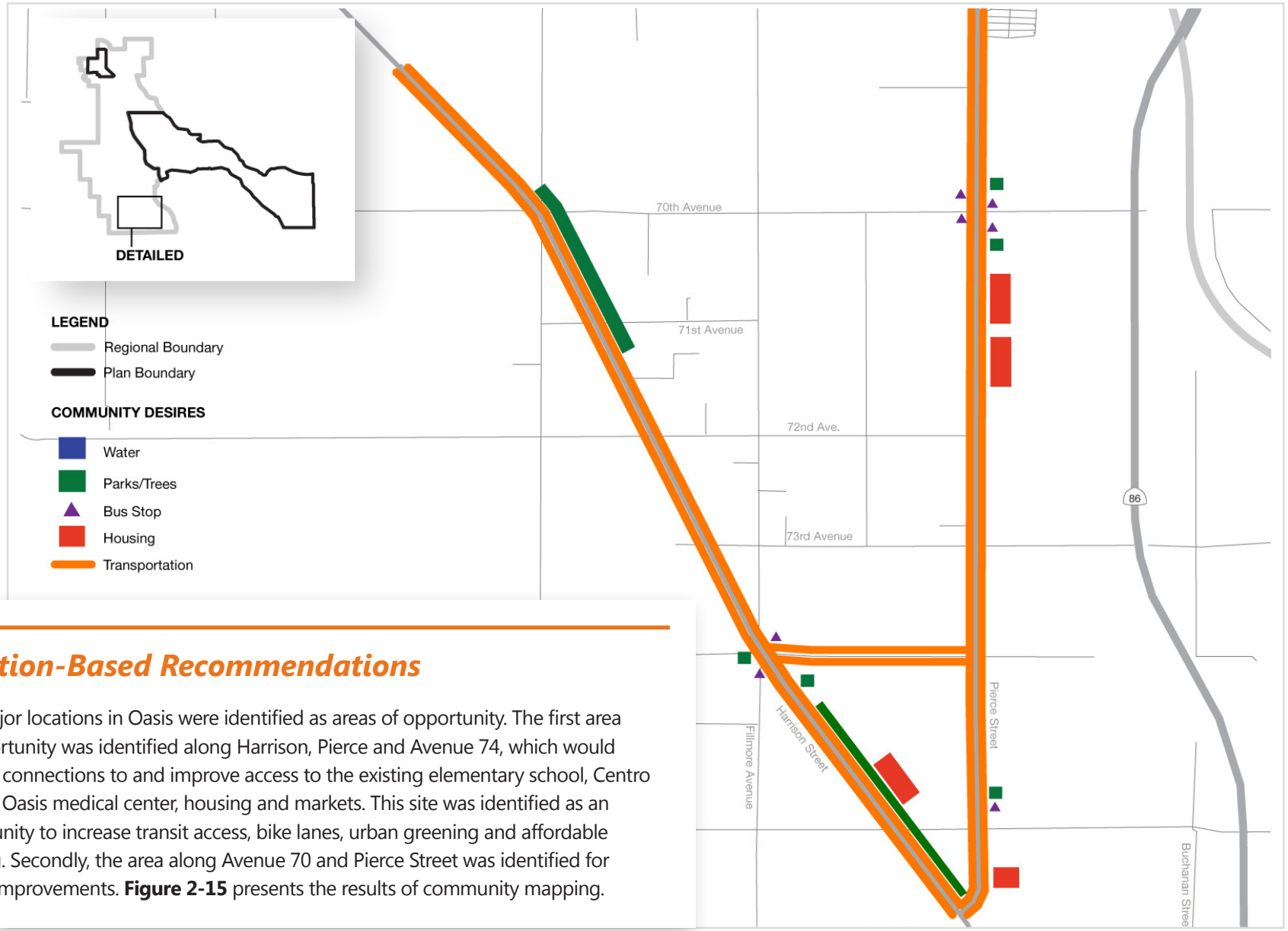


Figure 2-14 displays the data from **Figure 2-13** in more detail, showing that Oasis residents most commonly requested housing-related improvements and community development. Within housing-related improvements, residents seek better access to affordable housing and paving projects in mobile home parks. Concerning community development projects, community members requested better access to grocery stores and improvement of air monitoring systems to combat poor air quality as a result from dust blown in from the Salton Sea.

Figure 2-15. Oasis Community Mapping



Location-Based Recommendations

Two major locations in Oasis were identified as areas of opportunity. The first area of opportunity was identified along Harrison, Pierce and Avenue 74, which would provide connections to and improve access to the existing elementary school, Centro Medico Oasis medical center, housing and markets. This site was identified as an opportunity to increase transit access, bike lanes, urban greening and affordable housing. Secondly, the area along Avenue 70 and Pierce Street was identified for similar improvements. **Figure 2-15** presents the results of community mapping.

Thermal

Outreach Summary

The residents of Thermal who participated during the outreach efforts provided their top priorities as mobile home assistance programs, affordable housing projects, water and wastewater infrastructure and community parks. Thermal and Oasis are the two communities with the largest concentration of Polanco parks. The primary concerns and priorities in these Polanco parks include rehabilitation assistance programs for mobile homes, paving projects for the mobile home parks and other basic but crucial infrastructure. Improving housing conditions can assist in preserving the housing stock and sustainability of Polanco parks. Generally, the production of affordable housing was identified as a need and priority by residents.

Community members also identified parks as one of the main priorities for residents to promote access to green space. With little-to-no greening in the community, parks would bring multiple benefits to residents; they would promote active lifestyles and act as natural cooling centers and places for community gatherings. Additionally, water and wastewater infrastructure were identified as a priority for residents to extend clean drinking water and reliable wastewater service to the community primarily serviced by septic systems. Similar to Oasis, most of Thermal is also primarily on small water systems and domestic wells with risk of water contamination due to high levels of arsenic in the groundwater.

Other priorities identified by community residents included improvements to mobility-related projects such as increased bus service, pedestrian walkways and safe routes to schools. In fact, residents demonstrated the need for main streets to have reduced speeds or urban design that slows down vehicles to promote public safety in the community. Residents also identified the need for youth programs and community centers, aquatic centers, dog parks, community art and significant ways to promote public safety through urban design and public lighting. Lastly, community residents identified the need for improving programs and urban design that will benefit the aging population of Thermal to cater towards senior citizens.

Survey

As shown in **Figure 2-16**, community members identified the need for affordable housing, community parks and water and sewer infrastructure as the three most important improvements to their community.

Figure 2-16. Thermal Community Priorities

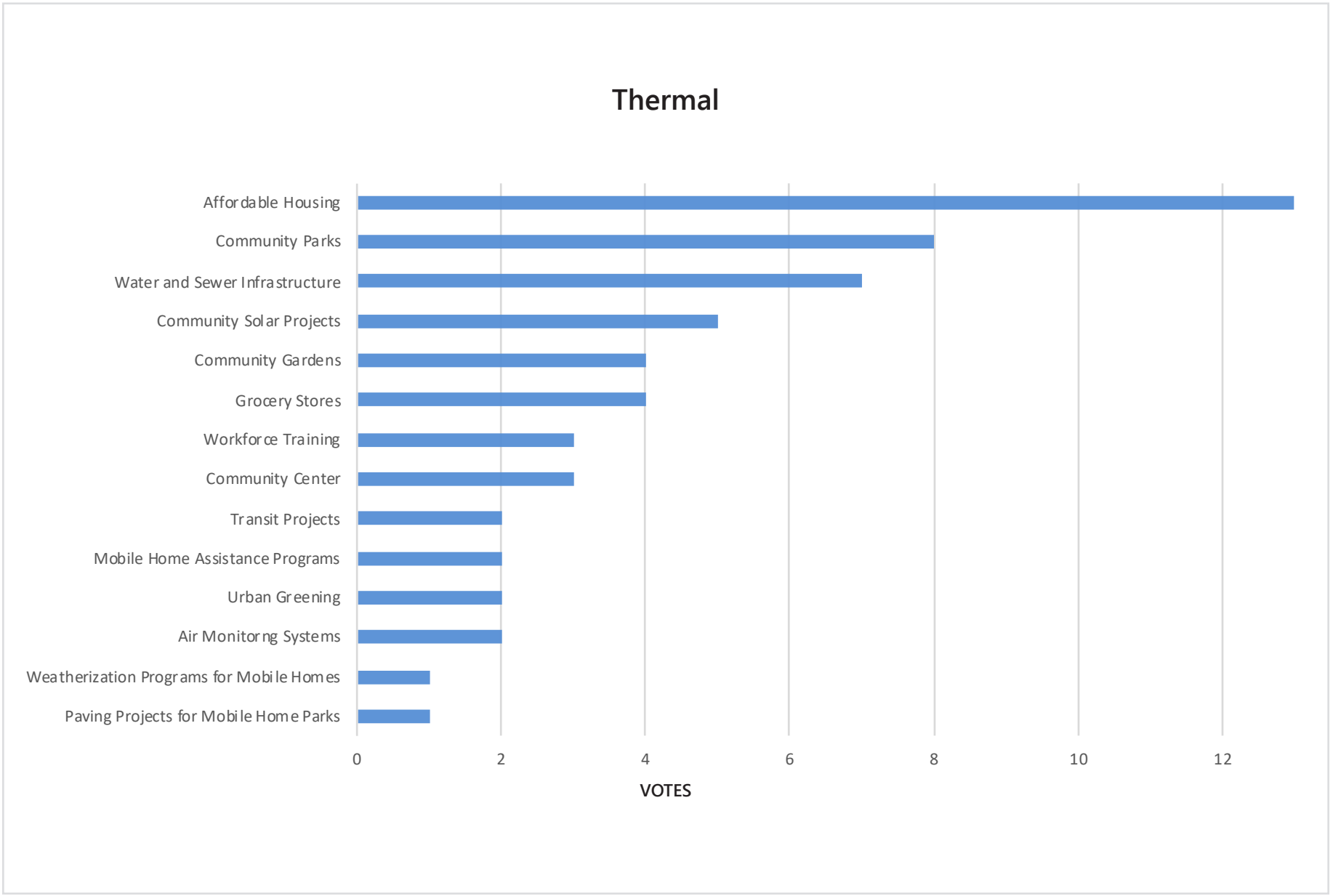


Figure 2-17. Thermal Community Priorities Breakdown

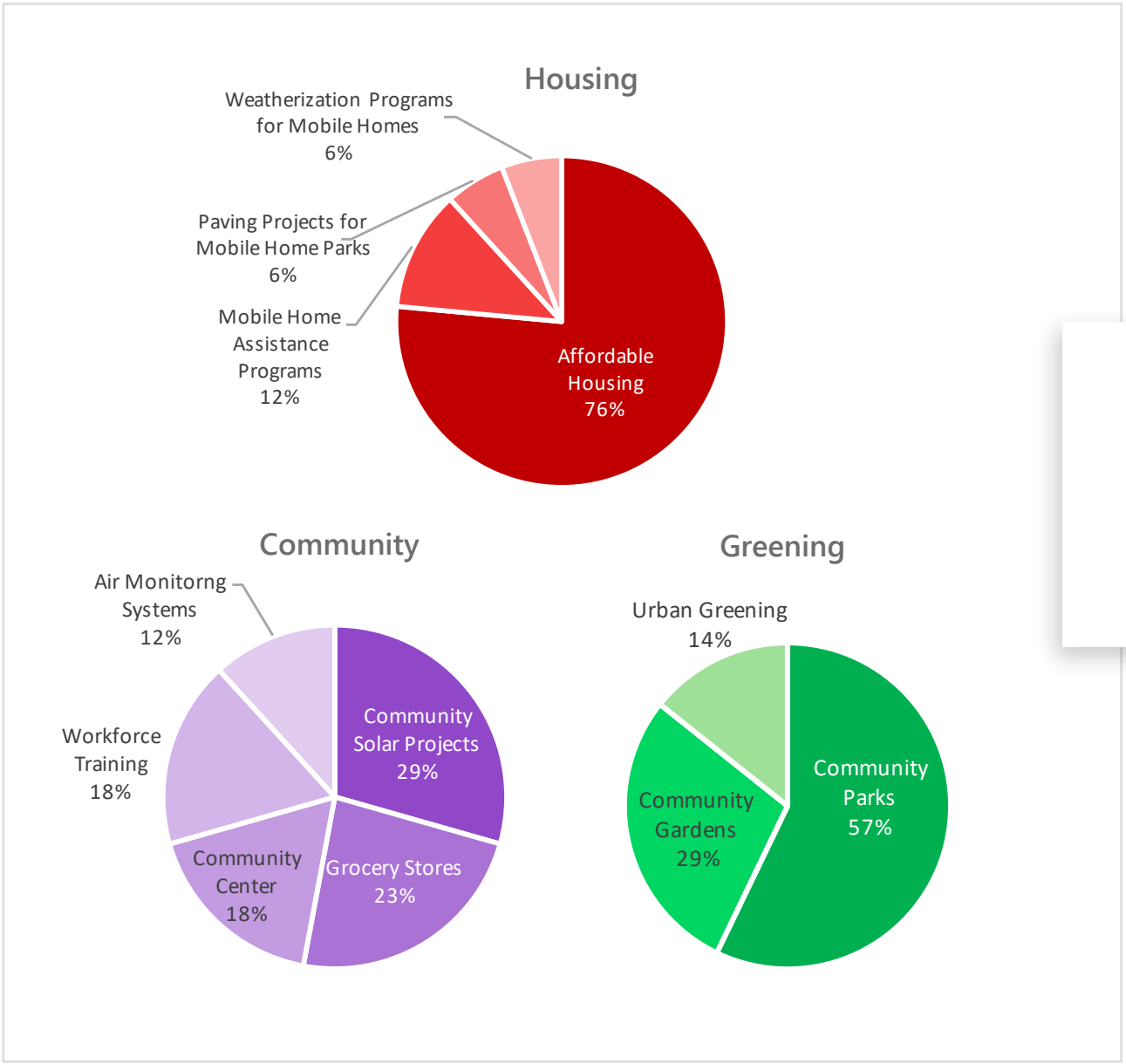
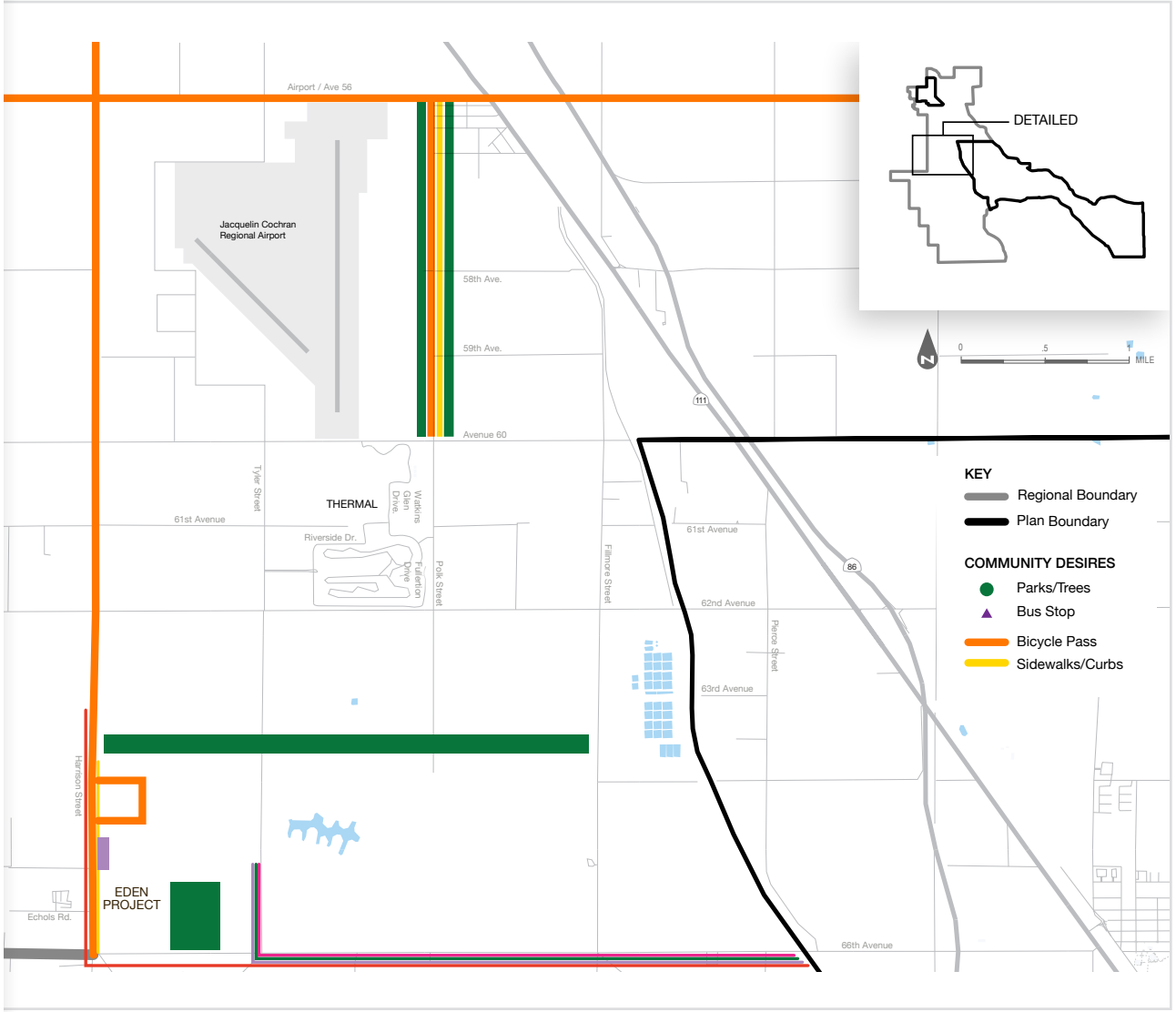


Figure 2-17 displays Thermal community members' concerns in more detail organized by grant opportunity, highlighting residents' most frequent requests for affordable housing, community solar projects and access to community parks.

Location-Based Recommendations

The primary feedback from residents of Thermal centered on improving access to biking, walking and green space near elementary, middle and high schools on Avenue 66. Community members said they felt unsafe at night due to a lack of lighting and increased traffic incidents. Sidewalks are often missing near existing community infrastructure and amenities such as school bus stops, grocery stores and main corridors. Senior residents were interested in having a dedicated transportation transit route that ran from the area of their homes to the local senior center. Community members also felt that traffic calming improvements, urban greening and library programming would enhance community engagement and increase safety. Safety and traffic calming measures were also prioritized along Airport Boulevard and Polk Street and "complete streets" were recommended to slow vehicle traffic and encourage more active transportation such as walking and biking. **Figure 2-18** presents the results of the community mapping.

Figure 2-18. Figure 2-18. Thermal Community Mapping



3

Existing Plan Evaluation and Findings

The purpose of the Eastern Coachella Valley Climate Action Plan for Climate Resilience (Action Plan) is to promote environmental justice by increasing climate resilience, decreasing greenhouse gas emissions (GHGs) and promoting equitable access to housing in the eastern Coachella Valley's most vulnerable and disadvantaged communities. Specifically, implementation of this plan will result in improved water and wastewater infrastructure, transportation options, and green spaces that meet the needs of the eastern Coachella Valley. This Action Plan will achieve this purpose by implementing projects that address community priorities described in Chapter 2 (Community Engagement), and linking each project to clear funding sources explored in Chapter 1 (Introduction). As an initial step, it's important to ensure that local plans, policies and ordinances reflect community priorities and provide a mechanism for implementing those priorities. This chapter first outlines the existing local and regional plans and explores each plan for how they respond to key climate –related themes that are relevant to the eastern Coachella Valley and its residents. Secondly, plan policies are highlighted that are especially effective in representing each theme and that serve as a model for the types of policies that would support the goals of the Action Plan and lend support for grant funding.

Local and Regional Plans

As presented in Chapter 1, the eastern Coachella Valley is served by multiple land use and transit agencies, each of which have multiple planning documents that establish the future vision for the region, provide guiding policy and land use regulation and provision local services. The key agencies in the region are the City of Coachella, Riverside County, Sunline Transit Agency and the Coachella Valley Association of Governments (CVAG).

The following provides a snapshot of the relevant planning efforts from each of the key agencies:

Riverside County General Plan

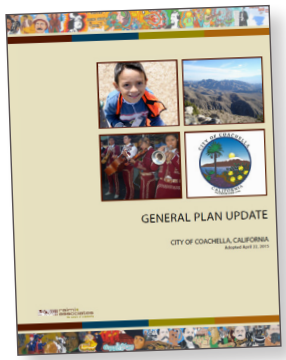
The Riverside County General Plan was updated in 2015 and provides an outline of the regional goals for growth and development. The plan includes a the Housing Element which is updated more frequently and outlines the additional housing units the County must provide and tactics on how to meet these requirements. The plan encourages many countywide best practices such as walkable places, energy conservation and the creation of parks and trails. Due to the large geographic area that Riverside County covers, the Riverside County General Plan is implemented through smaller area plans that are discussed below (Riverside County 2015a).

Riverside County Climate Action Plan (CAP)

The Riverside County Climate Action Plan (CAP) was developed in concert with the Riverside County General Plan to ensure that the growth patterns outlined in the Riverside County General Plan would meet the State of California GHG reduction goals. The CAP includes goals and policies that integrate sustainability into the homes, businesses and lives of Riverside County residents (Riverside County 2015b).

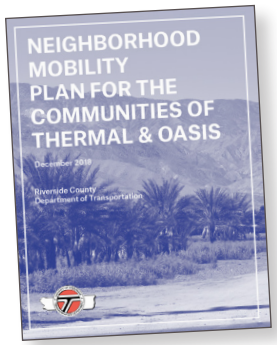
Eastern Coachella Valley Area Plan

The Eastern Coachella Valley Area Plan was adopted in 2016 as an implementation document to the Riverside County General Plan. Unlike the Riverside County General Plan, the Eastern Coachella Valley Area Plan provides detailed policy and standards specific to the region. The Eastern Coachella Valley Area Plan outlines specific locations for improvements and development, including the community town centers in North Shore and Mecca (Riverside County 2016).



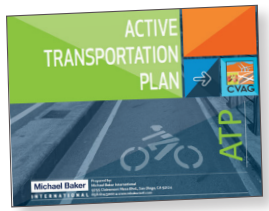
City of Coachella's General Plan and Climate Action Plan

The City of Coachella's General Plan was updated in 2015 and is a blueprint for development in the city. The City of Coachella's General Plan includes many policies that support sustainable and healthy neighborhoods. Notably, the plan includes strategies to create walkable places, bicycle parking, high-density housing and improved access to transit. The plan also includes the housing element which outlines the new housing units the City must provide and policies on how to meet those requirements. The CAP is an implementation tool of the City of Coachella's General Plan. The CAP includes a quantification of the City of Coachella's General Plan strategies so that the GHG reductions in the General Plan can be measured and tracked. The CAP is a tool to help the City lower energy use, decrease automobile use and reduce waste (City of Coachella 2015a, 2015b).



Neighborhood Mobility Plan for the Communities of Thermal and Oasis

The Neighborhood Mobility Plan for the Communities of Thermal and Oasis seeks to improve the active transportation and mobility options in the eastern Coachella Valley. The plan focuses on improving walking and biking infrastructure to be more accessible, equitable and safe. During the development of this plan, community residents led the identification process of potential projects to implement in both communities. The projects are identified with a near-term priority pedestrian connection framework and a long-term phasing approach (County of Riverside 2018). In 2019, the state awarded the County of Riverside $6.8 million for a regional project that connects several mobile home parks in Thermal and Oasis to schools, transit, and other community amenities and resources.



Coachella Valley Association of Governments Active Transportation Plan

The Active Transportation Plan was adopted in 2016 and outlines regional improvements and plans for neighborhood electric vehicles (NEVs), biking and walking. The Active Transportation Plan includes best practices for all of CVAG's member agencies to adopt, such as sidewalk design guidelines. The Active Transportation Plan also outlines regional projects, including transit stops and CV Link, and how local agencies can build on the benefits of these projects.

City of Coachella's Entertainment Commercial District Vision Plan

The City of Coachella Entertainment Commercial District Vision Plan was adopted in 2006 to guide development of the Entertainment Commercial (CE) District (see Figure 3-1). The goal of the vision plan is to create a major regional destination, including commercial and residential development, which benefits the existing residents by creating a variety of jobs and range of housing choices. The vision plan also aims to bring tax revenue to the City, thereby improving City services to the existing community. The plan includes smart growth goals, land use designations, circulation plans, a sustainability framework and a description of needed implementation measures (City of Coachella 2006).

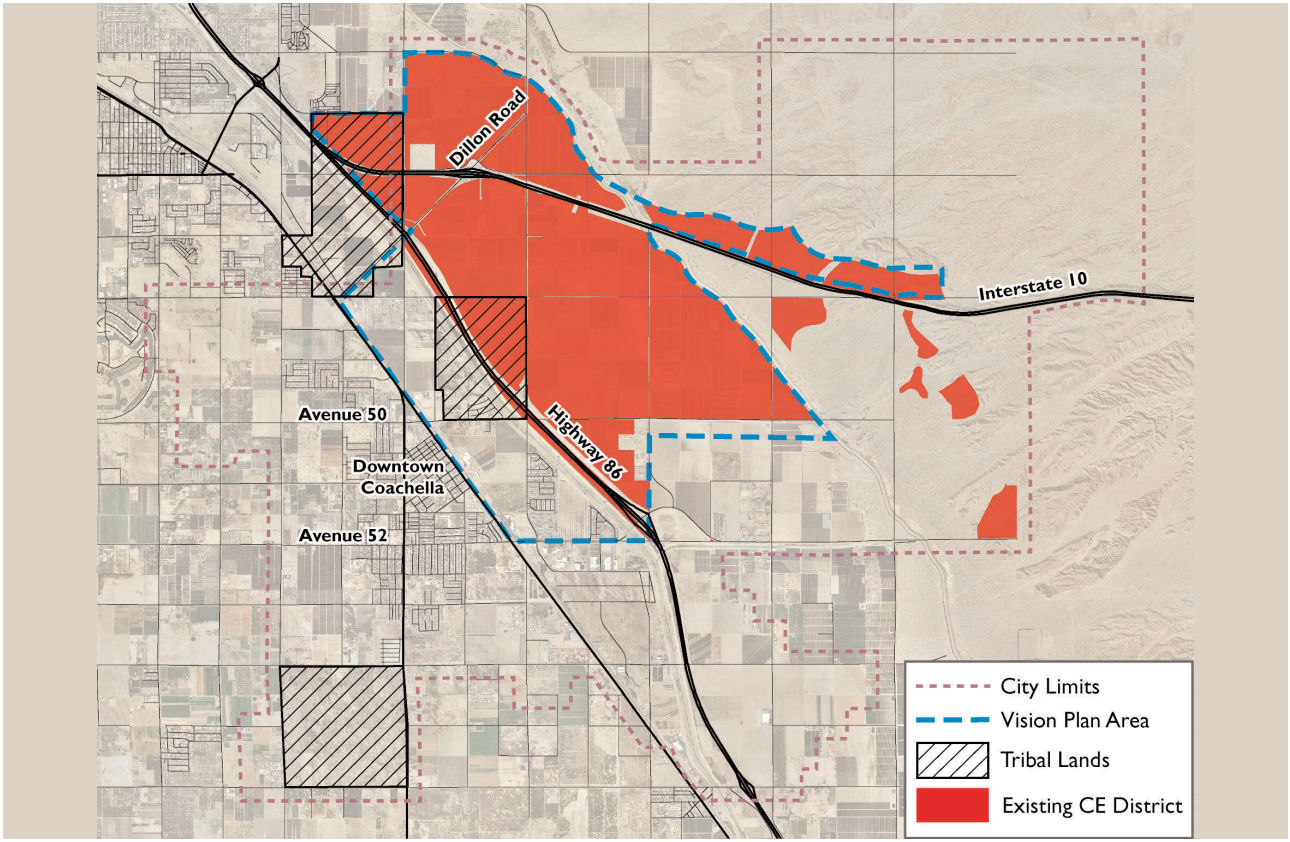
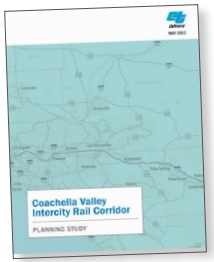


Figure 3-1 City of Coachella Entertainment Commercial District Vision Plan

Coachella Valley – San Gorgonio Pass Rail Corridor Service



The Riverside County Transportation Commission (RCTC) in coordination with the Federal Railroad Administration (FRA) and California Department of Transportation (Caltrans) is studying the feasibility of rail connecting Los Angeles and the Coachella Valley. The proposed rail line would travel from Los Angeles to Indio. The proposed project is currently in the preconstruction. RCTC, FRA and Caltrans have completed feasibility studies and programmatic environmental review is currently underway.

Compass Blueprint Strategic Framework & Priorities: A Recommendations Report for the City of Coachella

The Compass Blueprint Plan was developed by the Southern California Association of Governments (SCAG) and City of Coachella to accommodate growth while providing for livability, mobility, prosperity and sustainability. The Blueprint Plan recommended guiding principles and implementation strategies to be included in the City's General Plan update.

Moving Mecca Forward

Moving Mecca Forward is a community vision plan to address quality of life in Mecca by focusing on health and safety needs of the community and making infrastructure improvements. Moving Mecca Forward was built on community charrettes hosted in 2008 to create a vision for the community of Mecca. The plan outlines the community's primary challenges, guiding principles and implementation strategies (Opticos Design Inc. 2008).

Southern California Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS)

The RTP/SCS is a long-term vision and investment framework for Ventura, Los Angeles, Orange, San Bernardino, Riverside, and Imperial counties. The plan's purpose is to further integrated regional development patterns and improve the transportation networks within the region. An RTP/SCS is also meant to meet GHG reduction targets for passenger and light/medium duty vehicles. A few goals of the RTP include:

- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability for all people and goods in the region
- Preserve and ensure a sustainable regional transportation system
- Protect the environment and health for our residents by improving air quality and encouraging active transportation
- Actively encourage and create incentives for energy efficiency
- Encourage land use and growth patterns that facilitate transit and active transportation

SCAG is expected to complete an update to their RTP/SCS for 2020. The plan is known as ConnectSoCal.

Future Plans

The following plans were in development at the time the Action Plan was adopted. They were not analyzed as part of this Action Plan, but should be used to evaluate future projects as applicable.

Eastern Coachella Valley Water Master Supply Project

The Eastern Coachella Valley Water Master Supply Plan (ECVWMSP) is currently being developed to address the drinking water need in the region. The plan has identified 83 private domestic wells, state small water systems, and community water systems that are vulnerable to groundwater contamination and not a reliable source of drinking water.

Neighborhood Mobility Plan for Mecca and North Shore

Body text:A Regional and Neighborhood Mobility Plan for the communities of Mecca and North Shore is expected to be complete in 2020. Once complete, it will be merged with the Neighborhood Mobility Plan for the Communities of Thermal and Oasis to create a regional active transportation and mobility plan for the entire eastern Coachella Valley.

Climate Themes and Model Policies

This section evaluates the current local plans outlined above in their ability to promote climate adaptation, and reduction of greenhouse gasses, and to provide equitable access to housing. Each theme is explored in detail alongside a synthesis of effective local policies that align with each theme. A policy is considered effective if it helps implement a broader community vision, is easily interpreted and is measurable.

CLIMATE ADAPTATION

The eastern Coachella Valley faces three major hazards as a result of climate change: extreme heat, increased air pollution and flooding.

Extreme Heat

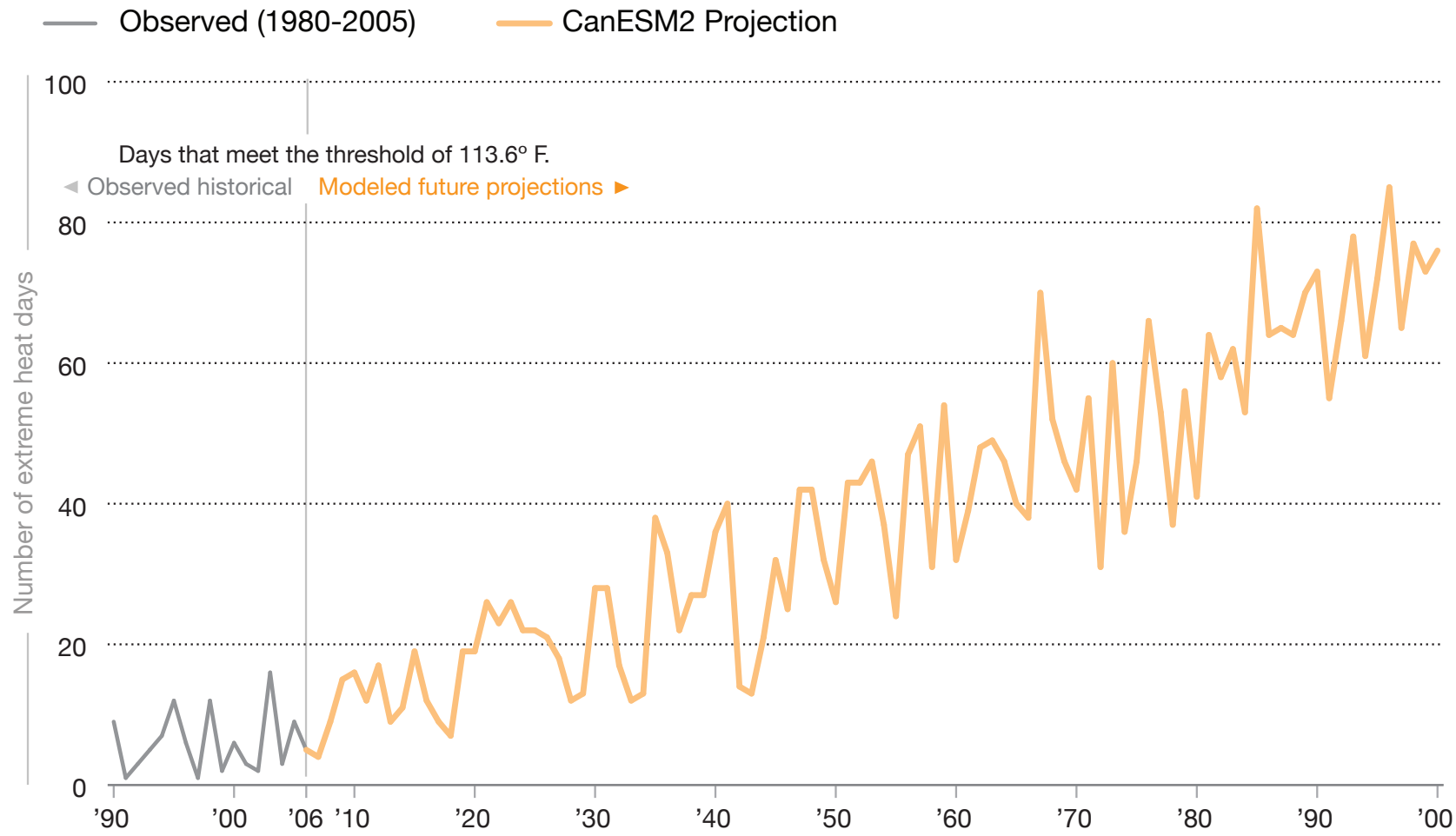
The eastern Coachella Valley is already known for its extreme summer temperatures, which will become more extreme as climate change affects the region. Currently, The eastern Coachella Valley experiences on average six extreme heat days a year. In 2040, the eastern Coachella Valley is expected to have 36 extreme heat days (**see Figure 3-2**). An increase in extreme heat days will most profoundly affect older adults, young children, outdoor workers and people who do not have access to reliable air conditioning. Similarly, the lack of proper weatherization can be problematic for residents during the winter months. Effective extreme heat policies will reduce urban heat by increasing trees and shade, decreasing large asphalt areas that absorb heat, improve weatherization and energy efficiency of homes and other buildings, reduce costs associated with cooling, and improving access to air conditioning on extreme heat days. Many urban heat strategies also result in carbon capture and energy reduction which also reduce GHGs.

Extreme Heat Day

An extreme heat day in the eastern Coachella Valley is a day above **113.6 F°.** (Cal-Adapt 2019)

Average number of extreme heat days in Coachella Valley

Extreme heat days and prolonged heat waves are forecasted to become regular occurrences in the Coachella Valley in the next 20 years. These heat events will disproportionaly effect the elderly and those without access to air conditioning.



Sources: Scripps Institution Of Oceanography - University of California, San Diego, University of Colorado, Boulder, cal-adapt.org

Snapshot of Effective Local Policy

City of Coachella General Plan and Climate Action Plan

Policy 1.11: Urban forest. Protect the City's healthy trees and plant new ones to provide shade, increase carbon sequestration and purify the air.

Policy 7.8: Work with the City's emergency response team and community action partnership of Riverside County to expand access to the drop-in cooling centers for people vulnerable to high heat days. This should also include organizing a transportation-assistance program for individuals without access to vehicles, develop a robust heat warning system and provide up-to-date information to residents about cooling center locations and the health risks of extreme heat.

Policy 5.3: Community gardens. Identify and prioritize locations to create a network of community gardens throughout Coachella with the long-term goal of providing sufficient garden spaces for residents to increase access to nutritional foods.

Policy 5.13: Design and build Neighborhoods to provide trees on both sides of at least 60% of new and existing streets within the project and on the project's side of bordering streets, between the vehicle travel way and walkway at intervals averaging no more than 50 feet (excluding driveways and utility vaults).

Riverside County General Plan and Climate Action Plan

Policy 16.6 Assist public buildings and institutions in converting asphalt to greenspace to address the heat island effect.

Increased Air Pollution

Higher temperatures from climate change can also decrease air quality in two key ways. First, longer warm seasons can also lead to longer pollen seasons. Secondly, ground level ozone, a harmful air pollutant, is created when sunlight and tailpipe emissions meet and cause a chemical reaction. As a result, increased heat and sunlight can lead to an increase in ground level ozone. Both pollen and ozone can make it harder to breathe[1] and increase hospital admissions for asthma (CDC 2019). Communities in the eastern Coachella Valley are already burdened by poor air quality from the dust blown off the Salton Sea floor, and many children currently miss school as a result of asthma.

Air quality can be improved locally by using trees as a buffer between polluted air and dust, as well as providing a natural air filter. Air quality can also be improved by reducing car trips; as a result, each policy associated with reduction of vehicle miles traveled will also benefit air quality.

Snapshot of Effective Local Policy

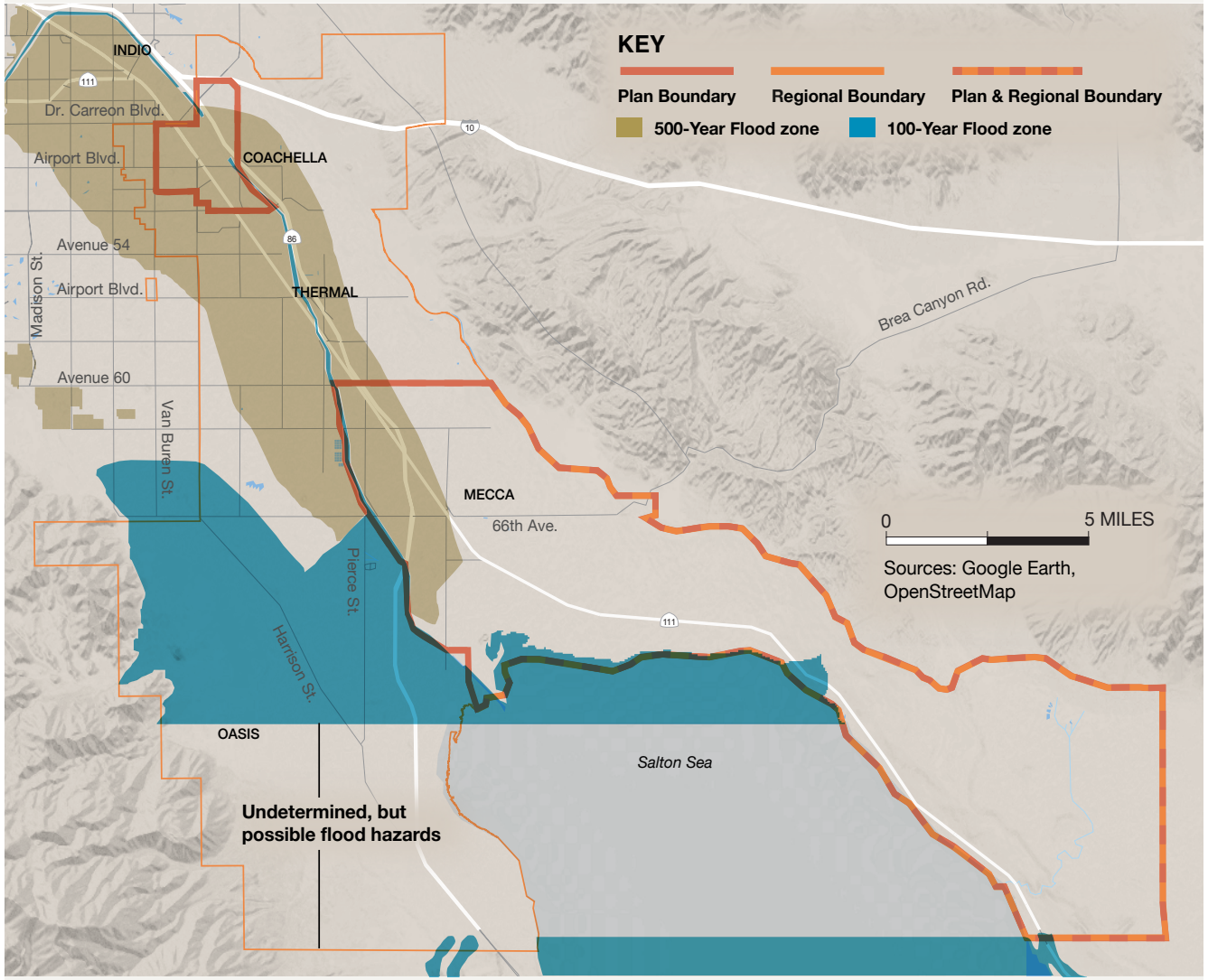
City of Coachella General Plan and Climate Action Plan

Policy 13.4: Seek new park locations that will serve residential areas that are more than a quarter mile from an existing or planned park or separated from an existing or planned park by a street that consists of four or more travel lanes.

Policy 2.17 Establish parks and open space as allowed uses within all General Plan Designations.

[1] In response to a recent increase extreme heat days as a result of climate change, the South Coast Air Quality Management District is requesting the EPA to designate the Coachella Valley as extreme nonattainment for ozone to allow more time to meet air quality standards

Figure 3-3. Flood Zones



Flooding

Much of the eastern Coachella Valley is within the 100- and 500-year flood plain (**see Figure 3-3**) and experiences flooding regularly as a result of limited stormwater infrastructure in eastern Coachella Valley communities. In 2018, flooding lead to severe damage of a community park. As rain becomes more intense and less predictable as a result of climate change, flooding events will become more extreme and more frequent. Model policies will include reducing impervious surfaces and replacing them with greenspace or bio-retention areas (**see Figure 3-4**) and ensuring adequate stormwater and flood protection infrastructure.

Snapshot of Effective Local Policy

Riverside County General Plan and Climate Action Plan

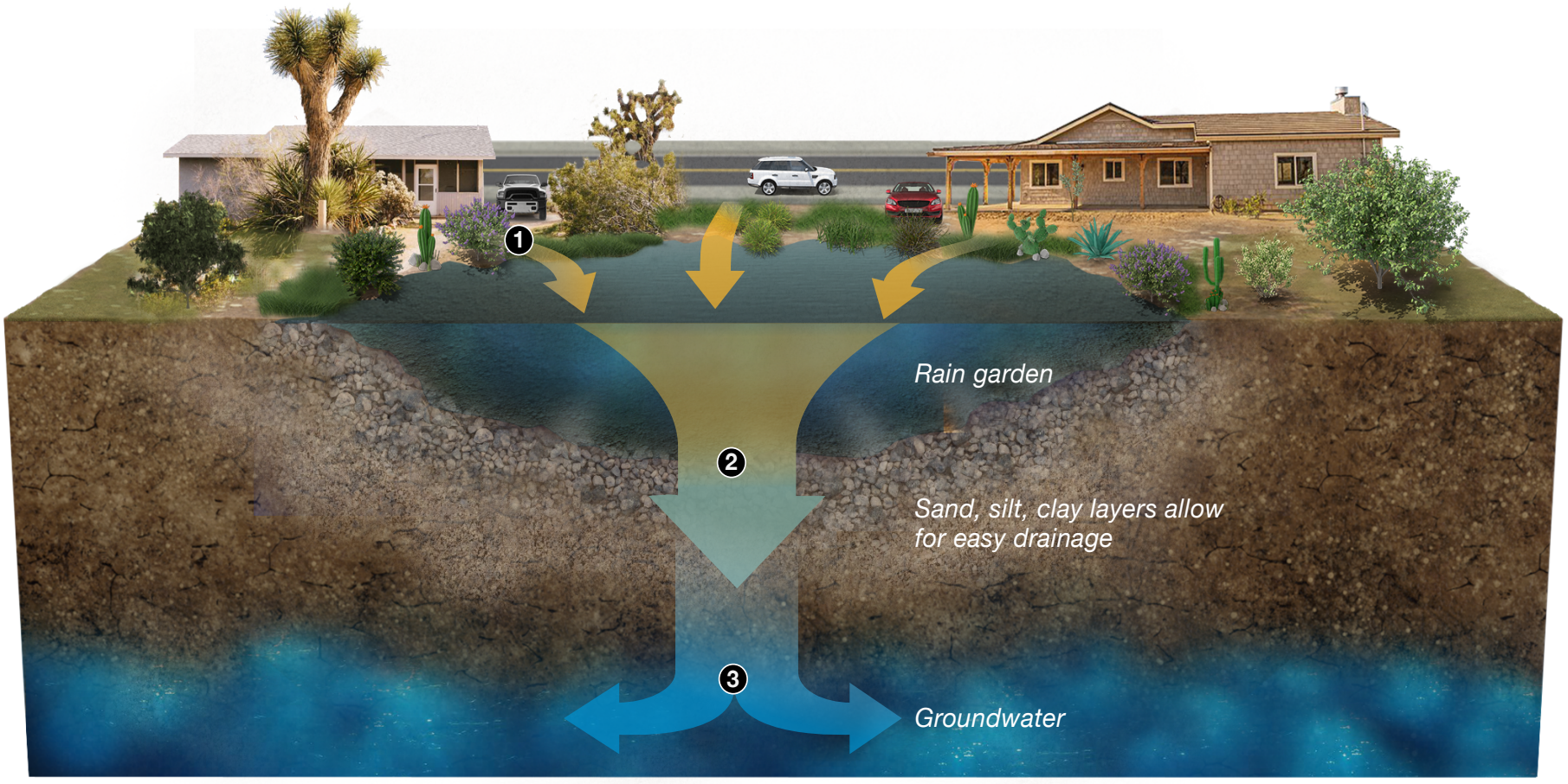
Policy 16.6 Assist public buildings and institutions in converting asphalt to greenspace to address the heat island effect.

Figure 3-4. Bioswale

How rain gardens work

Rain gardens are shallow depressions that use natural filtration to clean runoff water. and prevent stormwater from flooding the street by detaining it during flood events.

1. Water from impervious surfaces like rooftops, sidwalks and driveways collects in the rain garden.
2. Deep-rooted native plants, shrub, grasses, mulch and soil holds and filters the runoff water as it soaks into the soil.
3. Filtered water enters native soil and waterways.



Snapshot of Effective Local Policies

CVAG Action Transportation Plan

Objective D of Goal 1: Provide short- and long-term bicycle parking in employment and commercial areas, in multifamily housing, at schools and at recreation and transit facilities.

Objective F of Goal 1: Develop and implement education and encouragement plans aimed at youth, adult cyclists, pedestrians and motorists. Increase public awareness of the benefits of bicycling and of available resources and facilities.

Riverside County General Plan/Climate Action Plan

Policy C 1.2: Support development of a variety of transportation options for major employment and activity centers including direct access to transit routes, primary arterial highways, bikeways, park-n-ride facilities and pedestrian facilities.

REDUCTION OF GREENHOUSE GASES

California's aggressive GHG reduction goals are often reflected in the types of grants available to communities. Grant projects often require applicants to quantify GHG reduction from project design features such as decreased driving, decreased energy demand and increased greenery. The fundamental policy implications of these reductions are outlined below.

Reduction of Vehicle Miles Traveled

The largest source of GHGs and air pollution in California is transportation. Policies that lead to reduced vehicle miles traveled (VMTs) for passenger vehicles can reduce GHGs, improve local air quality, create healthier communities where people have access to transit and / or bike and walk to daily errands and save community members money by allowing them to buy less gas or give up their cars completely. The most effective ways to reduce VMTs include:

- Creating compact communities with a mix of uses so people can travel to errands and other things via walking or biking.
- Increasing pedestrian and bicycle safety, providing bike parking and bike shares and unbundling parking spaces from apartment rentals.
- Increasing and improving transit options including both flexible and fixed route options.

Energy

High energy use increases demand on non-renewable energy and increases cost for low-income households who often live in older homes and apartments. Older buildings often lack energy efficient appliances, quality insulation and high-efficiency lighting. These inefficiencies can lead to disproportionately higher utility bills compared to households in higher quality housing and could potentially lead to households not using air conditioning during dangerous heat waves or getting their utilities shut off if they are unable to pay these higher utility costs. The most effective energy saving policies include providing solar panels on affordable housing, increasing and improving transit options including both flexible and fixed route options, retrofitting existing houses for energy efficiency, placing trees near buildings for shade and educating local residents on energy reduction at home and work.

Carbon Capture

Carbon dioxide (CO2) is the most common GHG and is removed from the air by vegetation. New trees can also reduce the urban heat island effect by providing shade, reducing thermal bridge, filtering pollutants from cars and cleaning the air, while enhancing how a community looks and feels. There are many ways to calculate the benefits of trees, some of which must be used when applying for grant funding (see Chapter 6 [Technical Guidance] for details on how to calculate the GHG reduction of carbon capture).

Snapshot of Effective Local Policy

Coachella General Plan/Climate Action Plan

Policy 1.6: Seek out and promote alternative building types that are more sensitive to the arid environment found in the Coachella Valley.

Courtyard housing and commercial buildings can be designed to provide microclimates that are usable year round, reducing the need for mechanically cooled spaces and reducing energy consumption.

Policy 2.2: Passive solar design. Require new buildings to incorporate energy efficient building and site design strategies for the desert environment that include appropriate solar orientation, thermal mass, use of natural daylight and ventilation and shading.

Policy 2.9: Energy-efficient street lighting. Implement a program to install the latest energy efficient technologies for street and parking lot lights to meet City and state standards.

Policy 4.5: Heat island reductions. Require heat island reduction strategies in new developments such as light-colored cool roofs, light-colored paving, permeable paving, right-sized parking requirements, water efficient vegetative cover and planting, substantial tree canopy coverage, south and west side water-efficient tree planting and shaded asphalt paving.

Riverside General Plan/Climate Action Plan

AQ 5.4: Encourage the incorporation of energy-efficient design elements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.

AQ 4.3: Require centrally heated facilities to utilize automated time clocks or occupant sensors to control heating where feasible.

AFFORDABLE HOUSING

Adequate supplies of high-quality affordable housing and climate resiliency are inextricably linked. Any efforts to address housing demand will fall short over time unless they simultaneously address climate impacts and specific housing needs of the community. Adding to the housing stock in ways that are climate-resilient can help reduce energy and reduce transportation-related pollution, thus slowing the effects of climate change and increasing resiliency to climate impacts, including extreme heat, while reducing economic burdens for residents.

Affordable housing grants focus on providing a home and community that is attainable to all residents. This not only includes the cost of rent or a mortgage, but also the cost of transportation and utilities. Infill development can support low-carbon and affordable lifestyles by creating housing near transit and daily needs that does not require residents to own a car. Car-shares, including CalVans programs, and reduced parking standards can also reduce the cost of housing, as more of the site can be used for housing and residents do not need to pay for parking spaces they may not utilize.

Snapshot of Effective Local Policies

Coachella General Plan/Climate Action Plan

Policy 9.7 Unbundled parking. Allow and encourage developers of residential, mixed-use and multi-tenant commercial projects to unbundle parking costs from unit sale and rental costs in denser, mixed-use areas to give tenants and owners the opportunity to save money by using fewer parking spaces.

Eastern Coachella Valley Area Plan

Policy 3.13 Highest Density Residential (HHDR) development should be planned to accommodate a variety of housing types and styles that are accessible to, and meet the needs of a range of lifestyles, physical abilities and income levels.

Displacement Avoidance

Renters and low-income communities can be displaced and priced out of their neighborhoods as a result of improvements such as parks and transportation investments meant to serve them. Communities and projects that adopt policies in advance of considering improvements help ensure local residents can remain in their homes and neighborhoods after projects are complete. Additionally, the Transformative Climate Communities (TCC) program includes six categories of displacement avoidance strategies, described below:

1. **Production of affordable housing: these policies aim to build affordable housing through increased density, inclusionary zoning and funding opportunities.**
2. **Preservation of affordable housing: these policies aim to protect existing affordable housing units from increased rental prices and destruction for market-rate redevelopment.**
3. **Tenant protections and support: these policies aim to empower renters to obtain and remain in housing.**
4. **Neighborhood stabilization and wealth building: these policies aim to create jobs for local residents and support new business created by local residences.**
5. **Protections for small businesses: these policies aim to promote the viability of local small business.**
6. **Business stabilization and wealth buildings: these policies aim to enhance the long-term viability of the local economy (CSGC 2017).**

Snapshot of Effective Local Policies

Coachella General Plan/Climate Action Plan

Policy 2.13 Housing Displacement. Require a Health Impact Assessment for any development that causes residential displacement for both established and informal housing within the City and Sphere of Influence.

Policy 7.3 Displacement Prevention. Investigate the establishment of procedures to prevent the displacement of lower-income residents from assisted housing units that may convert to market-rate housing in the future.

Key Findings

The eastern Coachella Valley has a strong planning foundation that can be built upon to leverage grant funding to support climate resiliency projects. However, since the eastern Coachella Valley is rural and less burdened by high levels of traffic and industrial sites than more metropolitan communities, creating a compelling narrative will be essential in winning funding from the state. The eastern Coachella Valley would also benefit from increased incentives to create denser development, as the abundance of available land in the region does not create the same economic incentives to build up as other competitive urban regions of the state Grant applications should focus on the unique pollution sources such as pesticides, Salton Sea contamination, and mobile sources from the railroad and heavy international truck traffic on Highway 86, and community vulnerabilities, such as extremely limited park space.

It will be important to design projects that are resilient to the most pressing local climate change impacts. An important next step in achieving this goal is to strengthen and augment existing policy to more comprehensively address climate change and establish a clear path for implementation. How to achieve this is presented in detail in Chapter 5 (Plan and Policy Gap Analysis) alongside new policies that will address disruptive and emerging trends (see Chapter 4 [Disruptive and Emerging Trends]) that are important to the issue of climate change.

intentionally left blank

4

Disruptive and Emerging Trends

This chapter explores new technology and policy ideas that, through effective regulation, implementation and stewardship can help the region achieve the three major goals of the Eastern Coachella Action Plan for Climate Resilience (Action Plan): **increase climate resilience, reduce greenhouse gases** (GHGs) and **provide equitable access to housing**.

By analyzing and including these trends in the Action Plan, the region will be able to leverage these trends to direct the future of the region.

Climate Adaptation

Communities can promote nature in urbanized environments through a variety of environmental policies. These policies can include adding trees and agriculture to a developed area or protecting existing open lands on a community's borders. Natural elements in an urban environment can help reduce the outdoor air temperature and clean the air, protecting residents from extreme heat and increased air pollution, while improving the quality of life. Preserving natural elements and agriculture land on the edges of development can keep people separated from common farm nuisances (such as dust) and prevent agricultural land that currently serves as flood control from being converted. Additionally, these policies can also help capture carbon dioxide (CO_2) by preserving and promoting plant life. Carbon capture is an essential component for the AHSC, Sustainable Agricultural Lands Conservation Program, Transformative Climate Communities (TCC) Program and Urban Greening Grants.

URBAN GREENING

Urban Forestry

Trees in a city can provide shade, reduce heat, filter polluted air, manage stormwater and sequester CO_2—often all at a lower cost than manmade infrastructure. Communities can require projects to provide a certain number of trees or canopy cover. Communities can also require the preservation of existing trees, encourage the use of native trees or provide trees where they will have more community benefit, such as in a park (APA 2012a). Urban forestry can also be used to improve public health and adapt to climate change by making walking and biking more enjoyable, reduce energy demand by providing shade to buildings and provide food (APA 2016). The TCC Program rewards the use of high-carbon capture trees (refer to Chapter 5 [Plan and Policy Gap Analysis]).

Urban Agriculture

Urban agriculture can provide low-cost, healthy food, increase open space in urban environments, educate the community and support economic development strategies. Urban agriculture is often vegetable gardens on vacant lots, but it can also include tending fruit trees and keeping farm animals such as chickens. Communities can encourage urban agriculture by reducing taxes on land used for urban agriculture, allowing food crops between the sidewalk and road, proving rooftop garden space in multifamily developments, adopting standards for greenhouses, allowing urban livestock and allowing accessory sale and distribution of food (APA 2019).

AGRICULTURAL PRESERVATION

Agricultural Protection Zoning

Agricultural protection zoning (APZ) is a zoning designation that can be used to designate land that is used for farming and reduces the amount of non-farm residential development. APZs can also limit the ability for farms to be subdivided (broken up) and require setbacks from non-farming development. APZs can limit conflicts between farm and non-farm land uses and prevent farms from being converted to residential uses (APA 2012b). Agriculture is both an important economic engine and carbon sink in the ECV and is a unique and important opportunity.

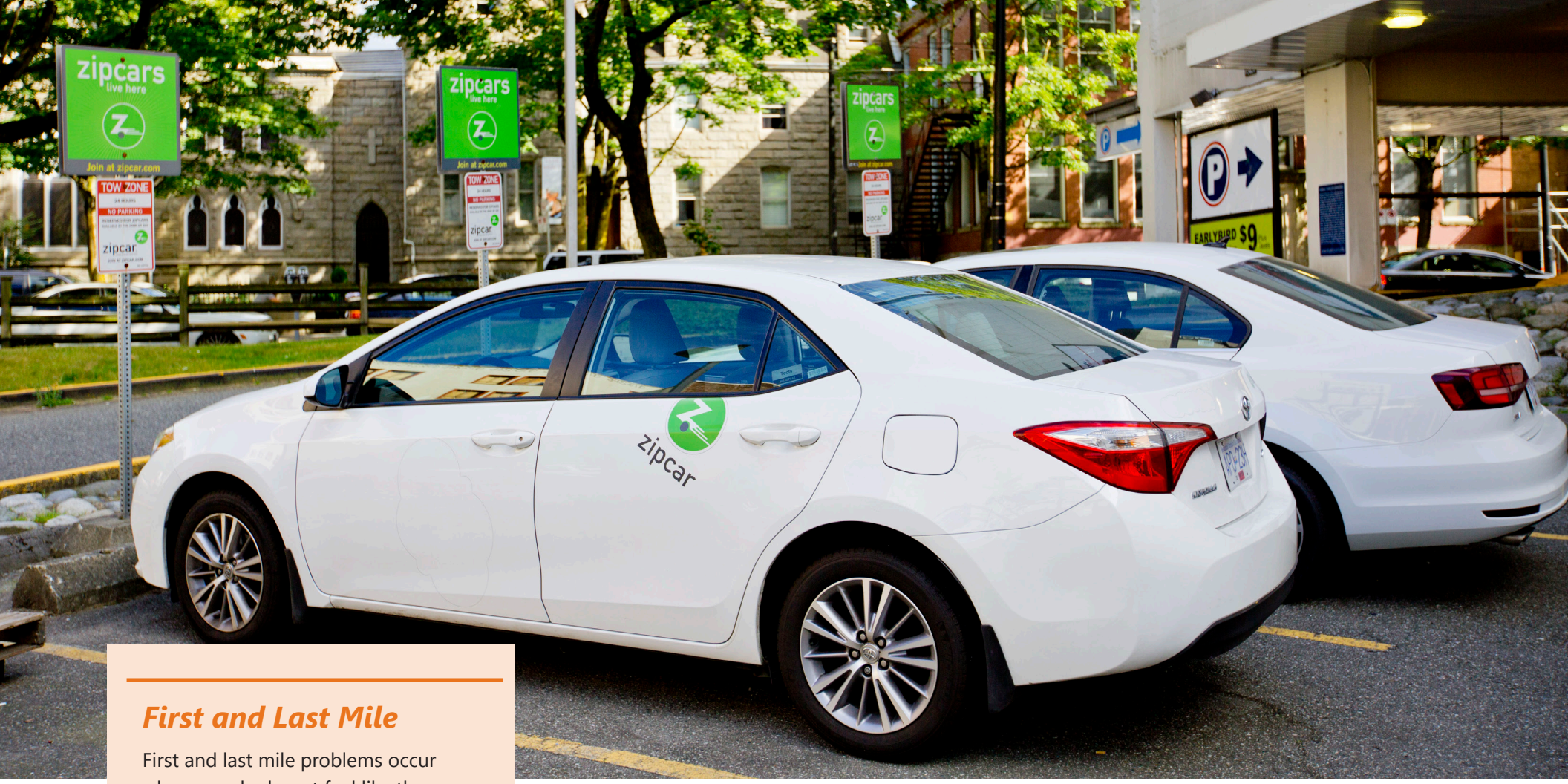
Urban Growth Boundaries

Urban growth boundaries (UGBs) are areas intended for future urban expansion. UGBs outline where urban services are expanded to and where land is zoned for development. Land outside of a UGB is generally zoned for green space or agriculture production. A UGB can establish a framework for which land is appropriate for development and which land should be maintained as natural lands for aesthetic preservation, agricultural production, carbon sequestration and other climate benefits (APA 2012b).

In California, each city has a "sphere of influence" that limits the planning boundaries of a city beyond its borders; however, unlike UGBs, spheres of influence are determined by outside commissions and not the communities themselves. UGBs can be established by the communities, both inside and outside city limits, to fine-tune where growth should occur based on a wide variety of community goals. Urban growth boundaries are also influenced by conservation plans, such as the Coachella Valley MSHCP (Multiple, Species Habitat Conservation Plan).

Transfer of Development Rights

Transfers of development rights allow landowners to sell the development potential of their land for profit. Landowners eligible to sell their development rights are located in "sending" areas, where development is discouraged because it is far outside a city or town center and therefore may be better used as open or agricultural space. Landowners who are available to buy development rights are located in "receiving" areas, which are generally more easily served by municipal services and are already developed. Many sending areas are agricultural or open space land that is protected from future development, while still retaining an economic value for the development rights (APA 2012b).



First and Last Mile

First and last mile problems occur when people do not feel like they can access bus or other transit stops. This can be because they live or work beyond biking or walking distance from the nearest transit stop or if they feel it is unsafe or unpleasant to walk or bike to the stop. First and last mile problems in the eastern Coachella Valley are especially pronounced in the summer, when extreme heat can most affect active commuters.

Reduction of Greenhouse Gasses

Transportation has been revolutionized by smart phones and the anticipated arrival of autonomous vehicles. These technologies have had mixed results in communities, as they can decrease mass transit ridership, increase car trips, but can also solve **"first and last mile"** problems. Communities need to prepare for these changes so that these opportunities expand access for a broad range of community members, improve mobility within the community as a whole and contribute to a more sustainable transportation system.

Transportation Network Companies

Transportation network companies (TNCs), also called ride-hailing services, are companies like Uber and Lyft that provide on-demand rides for passengers with mobile apps or websites. TNCs tend to increase demand for curb space but decrease the demand for parking. TNCs can lead to fewer people using mass transit but are generally more expensive than bus service. TNCs are often private companies employing freelance drivers, but transit agencies can create their own TNCs with professional drivers. Local governments can support TNCs by creating loading zones and advertising them at major transit stops to help riders get to locations without transit.

Autonomous Vehicles

Autonomous vehicles (AVs) are vehicles that are capable of driving with limited or no human involvement. There are six levels of autonomy, which range from warnings to the human driver and momentary interventions to a fully automated machine that requires no human involvement to operate. Many new cars include some level of automation, such as self-parking. But completely self-driving cars (AVs) are not restricted in California under current law. If all cars were to become AVs, they could operate as driverless taxis and decrease the demand for personal car ownership, parking and mass transit. However, if used as zero- or single-occupancy transportation, AVs have the potential to increase traffic, energy use and emissions. Communities can prepare for AVs by adapting transportation demand management principles to AVs, using a mix of incentives and disincentives to encourage shared use of AVs and discourage AVs with no passengers.

Car Sharing Services

Car sharing services are services that allow consumers access to the use of a vehicle without owning a personal car. Car sharing services typically charge a monthly or yearly membership fee and an hourly rate for access to its shared vehicle fleet. Car sharing can also be provided to an apartment development, free of charge to residents, as a transportation amenity. Car sharing can spread out the cost of owning a car across multiple families. Car sharing can help people who choose to take the bus or a carpool to work by providing a low-cost way to use a car for emergencies or to run errands that require a car. Cities can promote car sharing by offering to reduce parking requirements if the development offers a free or reduced-cost car sharing service or by providing a car sharing service sponsored by the local government.

SunLine TNC

SunLine Transit Agency is currently developing a smartphone app that will operate as a valleywide TNC. The app will service areas surrounding transit stops, to help people reach destinations that do not have a stop within walking or biking distance.

Sacramento

In Sacramento, three public housing projects were given eight-car fleets of electric **Zipcars** under a grant from the California Air Resources Board. Residents can apply for access to the cars, which allows them to use the car for 3-hour windows three times a week. The cars allow residents to get to job interviews and doctors' appointments where transit service may not be reliable (Chabria 2017).

Bike and Scooter Sharing Services

Bike sharing services are companies that operate like car sharing services, in that consumers can rent from a shared bicycle fleet. Bike sharing services typically do not charge a monthly membership fee and can be either docked (at set stations where one picks up and drops off a bike) or dockless (bikes are picked up wherever the last user dropped them off).

E-scooters and e-bikes are powered by an electric motor to propel riders along streets and up hills. Ebikes can travel up to 20 mph and e-scooters have a top speed of 15 mph. In the United States, ebike and e-scooter sharing services are typically dockless, and have expanded rapidly since the first launch of e-bike service in 2017 and e-scooter service in 2018.

Local governments can promote bike and scooter sharing services by allowing them to operate in their communities, designating areas appropriate for leaving dockless bikes and scooters and advertising them on mass transit and providing bike parking at stops. Shared bikes and scooters have caused blight issues in large cities since their introduction. Users have left bikes and scooters in the public right-of-way blocking sidewalks and ramps. Local governments will need to work with the shared mobility services to fund enforcement or redesign the services to address this growing problem. Additionally, safety concerns around e-bikes and e-scooters can be addressed by providing rider education on how and where to ride, advertising free helmets from the e-bike and e-scooter companies and providing helmet lockers at mass transit stops.

Microtransit

Microtransit is defined as a privately operated transit system, which in many cases mirrors the operations of public transit agencies along select routes. This can include large companies providing shuttles for their employees or large events providing shuttles for attendees. In the eastern Coachella Valley, CalVans administers a microtransit service by providing vans for agricultural workers to carpool to work. Microtransit operators can be highly flexible, tailoring their operations to match short-term or long-term changes in travel behavior. Communities can encourage microtransit through advertisement and creating rules for employers to encourage ridership (such as offering free rides).

Equitable Access to Housing

Local governments have many policy tools that can help guide the development of more affordable housing. These policy options include having developers pay for it through inclusionary zoning (IZ) ordinances; allowing developers to build more units if they provide affordable housing though density bonuses; allowing smaller, more affordable micro-units; and helping renters stay in their homes through tenant protections. Each of these policies can also bolster an Affordable Housing Sustainable Communities Program (AHSC) grant application and allow for more flexibility in its implementation.

Important terms in affordable housing:

Affordable housing: Housing is considered affordable if a family or individual is paying less than 30% of their income toward housing cost.

Naturally affordable: Naturally affordable housing is housing that is built to cost less in the open market. This could be building smaller homes, apartments or micro-units with shared kitchens, which cost less to rent or buy than large single-family homes or luxury apartments.

Income-restricted or subsidized housing: Subsidized housing refers to when a renter finds a home on the open market and pays the portion of the rent they can afford, while the remainder of rent is paid through a subsidized housing voucher. Generally, only people with lower incomes can qualify for these programs, which is why they are sometimes called income-restricted programs (Layfield 2019).

How to write an inclusionary housing ordinance:

Inclusionary housing ordinances have two major components: program structure and requirements.

Program Structure: Most inclusionary housing ordinances are mandatory and require all large residential projects in a community to provide affordable housing on site. This strategy ensures that affordable units will be built across a community and not isolated in one area. Other ordinances charge developments (residential and/or commercial) a housing impact fee to fund affordable housing elsewhere in the community; although, many cities are moving away from the practice of allowing an in-lieu payment, particularly near major transit stops, as opportunities to build affordable housing in transit rich areas are declining. Communities may require a higher percentage of affordable housing in more expensive neighborhoods or near public transit stops where the need is greatest. By writing an ordinance to ensure that affordable housing is spread throughout a community, communities enable people living in this subsidized housing to receive more equitable access to other services such as schools, parks and jobs.

Requirements: The requirements of a program should outline the set-aside percentage, income target, design standards and preservation of affordability. The set-aside percentage is how many units in a development would be required to be affordable. The most common set-aside percentage is 15%; however, many communities require higher depending on their needs. Income targeting allows communities to design ordinances to fund affordable housing for a range of people, from super-low-income to moderate-income/work-force housing. Design standards ensure that the affordable units built meet certain quality standards. Some ordinances require the same standard of quality in affordable housing as for market-rate housing, while others require functional equivalents. A functional equivalent refers to units that are required to have the same features, but that do not need to be identical. For example, both units may have dishwashers, but the market-rate unit may have a higher-end model. Finally, inclusionary housing ordinance requirements should outline how long the units should stay affordable, which is commonly between 30 and 99 years (Grounded Solutions Network 2019).

Inclusionary Zoning

Communities can increase affordable housing stock by adopting IZ ordinances. IZ ordinances require housing developments to provide affordable housing in the development or pay a fee. IZ ordinances usually only apply to larger development projects. The inclusion of affordable housing within a project can produce affordable units in desirable neighborhoods with amenities available nearby. IZ ordinances can also be used to build workforce, or middle-income, housing. This income bracket is important because middle-income families are not eligible for most affordable housing programs—such as vouchers—but can still find market-rate housing out of reach (Schneider 2018).

Density Bonus

Density bonuses allow developments to build projects larger than would be allowed under the zoning ordinance by providing benefits to the community. Benefits to the community can include affordable housing, childcare, senior housing, or other amenities. California law requires that local governments offer some form of density bonus. Jurisdictions may adopt more generous density bonus standards than those mandated by the state, including additional incentives and desired amenities, such as recreational space, depending on the needs and priorities of the community (Meyers Nave 2017).

Micro-Units

Smaller units without full kitchens and bathrooms can be important forms of affordable housing. Formally referred to as single-room occupancy (SRO) units, these shared living spaces have been popularly rebranded as micro-units and are often marketed toward young adults. Micro-units generally range in size from less than 100 square feet to 300 square feet. All micro-units are naturally more affordable by sharing spaces such as bathrooms, kitchens and common areas; however, some micro-units may have half-baths and kitchenettes within the units.

Micro-units can serve the needs of young single adults who cannot afford standard apartments and benefit from the social experience of sharing spaces. Micro-units can also play an important part in a targeted affordable housing strategy for low-income and very-low-income community members. Many micro-unit operators are also required to provide a portion of their rooms to income-qualified tenants. Income requirements for micro-units often have a low end and a high end (i.e., tenants have to make enough, but not too much), which could result in displacement after a small rise in income. However, well-designed micro-unit policies provide important affordable housing for single people and couples without children (Wyatt 2013).

Micro-Unit Standards

The smallest unit that can be built in California is called an "efficiency unit" in state law. An efficiency unit can be as small as 150 square feet and may have partial kitchen or bathroom facilities ; however, local governments can adopt different standards for their communities needs. No more than two people are permitted to live in an efficiency unit (California Health and Safety Code, Section 17958.1).

Tenant Protections

Tenant protections are a series of local policies that promote stable, safe and affordable rental housing in a community. Tenant protections aim to reduce rental hikes, decrease evictions and prevent dangerous housing conditions. Policies can include:

1 **Minimum lease terms**, which prevent landlords from raising rent too often;

2. **Inspection programs**, which ensure safe and healthy living conditions in rental housing;

3. **Tenant–landlord mediation**, which promotes landlord and renter communication on issues such as rent increases, housing quality and other issues;

4. **Just cause eviction ordinances**, which ensure that tenants are evicted only for specific reasons, such as not paying rent or violating the lease agreement;

5. **Relocation assistance**, which requires landlords to provide relocation assistance to low-income renters after no-fault evictions;

6. **Rent stabilization**, which caps the amount rent can be increased each year – also known as "rent control" (Home for All 2019).

Strengthening Tenant Protections

The City of San Diego has proposed strengthening tenant protections with the following measures:

• Create a local ordinance that requires a 12-month notice to the City, local nonprofits and tenants' groups in the case of a triggering event such as opt out, expiration of affordability, or sale.

• Prohibit discrimination against Section 8 voucher holders, making it unlawful for landlords to refuse to accept voucher holders as tenants solely based on their source of income.

• Explore options for increasing relocation assistance for residents displaced by the conversion of an affordable property to market-rate. (City of San Diego 2017)

intentionally left blank

5

Plan And Policy Gap Analysis

As outlined in Chapter 3 (Existing Plan Evaluation and Findings), the plans that govern the eastern Coachella Valley provide a base of climate adaptation and greenhouse gas (GHG) emission-reduction strategies; however, many of the policies included in the existing regional plans do not include clear and measurable implementation. This chapter builds on Chapter 3 and Chapter 4 (Disruptive and Emerging Trends) and provides a process and set of recommendations to strengthen the existing policies to address changing opportunities, changing technologies and shifting grant requirements.

Policies are organized by the three major themes: climate adaptation, GHG reduction and equitable access to housing. Each policy will also be linked to the grant(s) outlined in Chapter 1 (Introduction) that it best supports. The policy recommendations included in this chapter reflect the need to adapt to both a changing climate and changing legislative opportunities. This chapter is not meant to provide an exhaustive set of policy recommendations for each governing plan in the region; however, it does provide guidance for how to strengthen plans to achieve a more climate resilient region while readying the eastern Coachella Valley for grant funding.

Process For Achieving A More Resilient Planning Foundation

The process to fortify plans to be more climate resilient and competitive for a range of grant opportunities includes (a) reviewing each plan through the lens of climate change, (b) augmenting and/or modifying applicable policies and projects to ensure they are contributing to a more climate resilient region and (c) crafting policies to be clear and measurable, which is a fundamental requirement to qualify for most grant funding. This process is explored in more detail within each theme below.

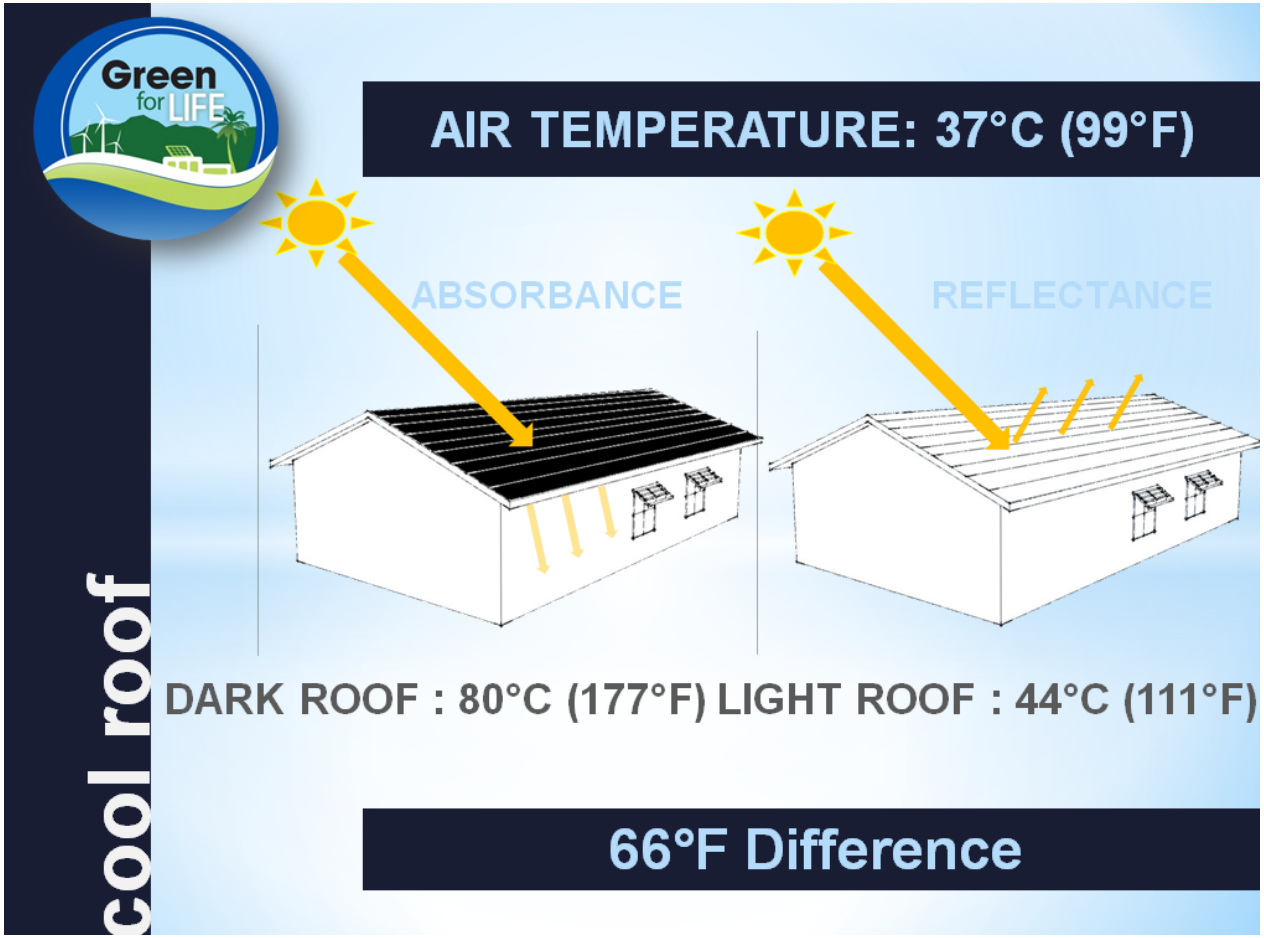
Policy Recommendations

The following policy recommendations strengthen the existing plans to create a more resilient, sustainable, and equitable place.

CLIMATE ADAPTATION

As summarized in Chapter 3, the eastern Coachella Valley must prepare for and adapt to three major climate-related hazards: extreme heat, increased air pollution and increase in the frequency and severity of floods. Existing policies should be strengthened with the addition of more clear and quantifiable measures of success, which would help decision makers understand if a policy is working and provide data for grant writers to include in their application. Additionally, policy recommendations included in this chapter reflect the needs of the most vulnerable community members as identified in the community engagement process. In general, effective climate adaptation policy alters the built environment to buffer against potential environmental harms and achieve other community

Effective extreme heat policies will reduce urban heat by increasing trees and shade, decreasing large asphalt areas that absorb heat creating a more



co-benefits.

Co-benefits occur when a policy achieves multiple community goals. For example, placing trees in a community downtown can help address extreme heat, provide native habitat for local species, encourage more people to walk or bike and increase shopping activity by making it more pleasant to be on the street year round.

pleasant urban environment and increasing utilization of cool asphalt and permeable pavement. Similarly, energy efficiency policies can reduce energy demand and associated GHG emissions, while also reducing the cost of energy bills that residents with poorly weatherized homes are faced with. Effective air quality policies will utilize trees and urban greening to filter the air, reduce air pollution from on- and off-road vehicles and address dust and pesticide use on agriculture land Effective flooding policies will prevent development on lowest-lying areas, provide stormwater infrastructure throughout the communities, including in mobile home parks, and utilize green infrastructure to divert water and provide other co-benefits.

The following recommendations are designed to strengthen existing plan policies to be clear and measurable in reducing heat, improving air quality and preventing flood impacts.

City of Coachella General Plan and Climate Adaptation Plan Policy 1.13: Designing for Warming Temperatures. *When reviewing development proposals, encourage applicants and designers to consider warming temperatures in the design of cooling systems.*

This policy could be expanded in two key ways. First, this policy could address multiple climate-related hazards. Secondly, this policy could include a list of design features and require developers to include one or more of the features in their projects.

Funding Source(s):

Hazard: **Extreme Heat**

Example features for extreme heat could include:

- Use of cool pavement and/or roofing materials with reflective surfaces
- Increased shading near buildings and in outdoor common spaces
- Utilize rooftop gardens and green urban infrastructure to cool buildings
- Increased insulation to reduce need for heating and cooling
- Use of "green" courtyards in multifamily developments
- Requirements to place solar panels on new or rehab construction
- Programs to promote community and rooftop solar to reduce need for non-renewable energy sources

Hazard: **Air Quality**

Example features for air quality could include:

- Use of trees and plants known for their air purifying benefits near roadways and in communities impacted by dust and pollutants
- Increasing the use of low water plants that create habitat for local, regional and migratory species
- Dust suppression measures in rural communities, including cool paving or non-dirt but permeable surfaces in mobile home parks
- Vegetated barriers between high-traffic streets and places where people gather and live
- Co-location of flexible or fixed route transit with multifamily development
- Use of native plants and trees to stabilize soil and create windbreaks in urban areas to mitigate the harmful effects of extreme winds and resulting dust storms

Hazard: **Flooding**

Example features for flooding could include:

- Replacing asphalt with natural or permeable artificial surfaces
- Adding green infrastructure, including bioswales to streets, parking lots and new development
- Expanding local habitat for native, drought-resistant plants with hardy root networks to help decrease soil erosion

City of Coachella General Plan and Climate Adaptation Plan Policy 4.5: Heat Island Reductions. *Require heat island reduction strategies in new developments such as light-colored cool roofs, light-colored paving, permeable paving, right-sized parking requirements, water-efficient vegetative cover and planting, substantial tree canopy coverage, south and west side water-efficient tree planting and shaded asphalt paving.*

The cool roof and cool pavement segment of this policy can be strengthened by adopting an official cool roof and cool pavement policy consistent with **LEED v4**. This would address **extreme heat** by reducing the **urban heat island effect**. This could either be a mandatory policy for all development or a model policy that is utilized for grant-funded projects as an energy saving measure with an associated GHG reduction .

Funding Source(s):

City of Coachella General Plan and Climate Adaptation Plan Policy 4.6: Public Realm Shading. *Strive to improve shading in public spaces such as bus stops, sidewalks and public parks and plazas through the use of trees, shelters, awnings, gazebos, fabric shading and other creative cooling strategies.*

This policy could be strengthened by creating an outline for model transit stops with shading and other amenities, such as bike parking, hydration stations and urban greening. This policy could also address **air quality** and **extreme heat** by using shade trees that also provide air purification benefits. This model transit stop could be used uniformly in grant applications to improve the system as a whole .

Funding Source(s): , *Other Funding Sources: Low Carbon Transportation Options*

LEED v4.

Leadership in Energy and Environmental Design (LEED) is a sustainable building certification program. LEED certification requires buildings to include sustainability features above and beyond what is required by the California Building Code. LEED v4 is the most recent version of LEED.

Urban Heat Island Effect

The urban heat island effect occurs when dark urban surfaces, such as roofs and roads, absorb heat and slowly release the heat over time. This trapped heat raises the temperature of the urban environment. The urban heat island effect is most noticeable at night, when the sun goes down and asphalt continues to release heat. These warm nights do not allow people to cool down and find relief during heat waves and can increase heat related illnesses such as heat stroke (EPA 2017).

City of Coachella General Plan and Climate Adaptation Plan Policy 4.1: Agricultural Land Preservation. Provide for the protection and preservation of agricultural land as a major industry for the City of Coachella (Coachella) and sufficient to maintain the rural character of Coachella. Explore and allow a variety of methods of preserving land in sizes that are viable economic units for continuing agricultural activities including:

- Density transfers to allow a greater portion of proposed development on other (infill sites) in order to allow productive sites to remain in agricultural production.
- Increased focus on development in or near existing communities including mobile home communities to prevent further encroachment on greenfields.
- Use of the Williamson Act.
- Adopting a farmland protection program.
- Creating Community gardens
- Supporting development and preservation of small agricultural parcels at the urbanized edge to support small scale farming.

Protecting agriculture is an important carbon sink and is eligible for grant funding. This policy could be implemented by identifying key parcels that are currently being utilized for agriculture but are zoned for urban development, as well as parcels in the priority development areas as identified in Chapter 6 (Technical Guidance). This policy should also address **local flooding concerns**. Parcels that are within or near the 500-year floodplain would be important candidates for conservation and would create more climate resilient communities by focusing development away from flooding areas. These parcels can be used as the basis for a density transfer program. This will encourage development near community centers where people can walk and bike, avoid building in flood plains and retain carbon sinks. This policy can also address **air quality concerns**, by combining agricultural land preservation efforts with air quality improvement policies including requirements and incentives to replace combustion engines on farm equipment with zero emission engines, requiring and incentivizing reduced use of pesticides, fertilizers and fumigants that impact air quality and requiring dust mitigation activities. These sustainable agriculture policies should be included into all agricultural land preservation activities .

Funding Source(s):

City of Coachella General Plan and Climate Adaptation Plan Policy 5.3: Community Gardens. Identify and prioritize locations to create a network of community gardens throughout Coachella with the long-term goal of providing sufficient garden spaces for residents to increase access to nutritional foods. Where feasible, locate these spaces in areas that can be easily accessible to serve as a focal point or community meeting place for one or more neighborhoods.

Community gardens can be created by local governments or non-profit organizations on public or private land. To encourage the development of community gardens on private vacant land, this policy can be expanded in Coachella and the County by allowing community gardens on all vacant parcels in Coachella and developing a streamlined approval process to allow for the creation of community gardens. These new green spaces will help reduce the urban heat island effect and mitigate **extreme heat**. This expanded policy would also advance the community goal of providing expanded access to healthy food .

Funding Source(s):

GREENHOUSE GAS REDUCTION

As explored in Chapter 3, the governing plans in the eastern Coachella Valley have multiple policies that aim to reduce GHGs. Generally, GHG reduction policies fall into two major categories: reducing energy consumption and reducing car trips (commonly known as reducing vehicle miles traveled [VMT]). Policies that reduce VMT also generally improve air quality as they reduce the pollution from cars. Effective GHG reduction policies capitalize on the latest technology, promote co-benefits and are measurable. The following recommendations are designed to strengthen existing plan policies to be clear and measurable in reducing GHGs and achieving other co-benefits and suggest additional policies critical to achieving GHG reduction goals.

City of Coachella General Plan and Climate Adaptation Plan Policy 2.9: Energy-Efficient Street Lighting. *Implement a program to install the latest energy-efficient technologies for street and parking lot lights to meet City and state standards.*

A sustainable lighting policy could go beyond Coachella and state standards by requiring the use of LEDs and adaptive controls that respond to the presence of motion or natural light depending on the specific lighting needs of an area. This policy could also be expanded to outdoor lighting in parks, near schools and churches and other public gathering places. Coachella or Riverside County could also adopt a model policy and estimate the GåHG reductions from such improvements to be used by grant applications that include outdoor lighting .

Funding Source(s):

Riverside General Plan AQ 4.3. *Require centrally heated facilities to utilize automated time clocks or occupant sensors to control heating where feasible.*

This policy could be expanded to require energy management plans for all large facilities. Projects that receive grant funding should include energy management plans that employ both automated systems and active management as an energy saving and fiscally responsible technique. By illustrating unique and quantifiable energy reductions, local projects will be more competitive for grant funding .

Funding Source(s):

Riverside County General Plan OS 2.1. *Implement a water-efficient landscape ordinance and corresponding policies that promote the use of water-efficient plants and irrigation technologies, minimizes the use of turf and reduces water-waste without sacrificing landscape quality.*

Adopting this policy across jurisdictions would assist in the development of water-smart parks that reduce GHGs by reducing water demand. **Reducing water demand in regions that receive water through complex pumping systems also reduces the energy required to move the water.** If a model ordinance or optional standards are adopted, new parks could calculate and take credit for such savings. Additionally, jurisdictions can update their preferred plant lists to reflect the recommendation in the Coachella Valley Water District's Lush and Efficient species landscaping guide .

Funding Source(s):

City of Coachella General Plan and Climate Adaptation Plan Policy 5.16: Access to Parks and Open Spaces. *Design new neighborhoods and, where feasible, retrofit existing neighborhoods, so that 60 percent of dwelling units are within a one-third-mile walking distance of a usable open space such as a tot-lot, neighborhood park, community park or plaza/green.*

This policy could better address existing communities and infill development in a variety of ways. In addition to this policy, parcels within one-third-mile walking distance of an existing or proposed park can be up-zoned to permit more housing near parks where infrastructure is available. This policy could also be updated to prioritize new park sites in existing communities without a park in walking distance from residential centers. This would co-locate concentrated development and greenspace to help address **extreme heat**. This would also have co-benefits by improving park access for new residents and reducing **VMT** for recreation-related trips .

Funding Source(s): *, Other Funding Sources: Proposition 68*

Neighborhood Mobility Plan for the Communities of Thermal and Oasis Goal 3: Promote shared mobility and transit use.

This goal outlines the expansion and improvement of transit routes, stops and shelters, with a particular emphasis on active transportation infrastructure. The plan identifies key corridors and intersections that require improved or additional infrastructure to accommodate pedestrians and cyclists and ultimately provide alternative mobility options that would help reduce VMT and GHGs while promoting healthy lifestyles. It also furthers the active transportation vision shared by the both the region and the state, by making it safer and easier for people to walk or bike to work, school and other public spaces like parks and shopping centers. The mobility plan also describes developing a formalized vanpool program and encouraging innovative ride-on-demand services that provide better connectivity and efficiency within the eastern Coachella Valley and to the rest of the region. This goal could be strengthened by providing specific detail on transit route or shelter improvements and estimated GHG reductions. Additionally, car, bike and scooter sharing services should be incorporated into this goal as first-last mile solutions.

Funding Source(s): *, Other Funding Sources: Senate Bill 1*

Riverside County Climate Action Plan R2 – Transportation Policies. These policies work together to support the adoption of a voluntary trip reduction program for new developments. Such a program would support non-automotive modes of transportation, outreach programs that promote transportation modes that limit VMT and guaranteed ride home programs. The latter are programs that ensure that employees who take advantage of carpooling opportunities are guaranteed a safe ride home if they miss the carpool pick-up time due to work-related activities. This goal supports sustainable transportation because it reduces VMT, which results in decreased GHG production.

This policy should be expanded to ensure adequate options for rural communities, in particular eastern Coachella Valley communities. This policy could also be strengthened by including additional VMT-reduction strategies such as expanding the use of CalVans, employer-provided transit subsidies and shared mobility strategies. This policy should also include GHG reduction calculations to be included in grant applications .

Funding Source(s):

Riverside General Plan C 1.2. *Support development of a variety of transportation options for major employment and activity centers, including direct access to transit routes, primary arterial highways, bikeways, park-n-ride facilities and pedestrian facilities.*

This policy can also be strengthened by prioritizing specific travel modes within the region and by providing a framework to support priority travel modes. Additionally, this policy should ensure inclusion of rural communities and transportation options relevant to eastern Coachella Valley residents including rideshare programs, increased access to active transportation infrastructure and increased frequency of public transportation options. Local governments should also consider identifying priority modes on their roadway system and implementing a layered networks approach, which has been identified by the Institute of Transportation Engineers (ITE) as a recommended practice for implementing complete streets. Coachella or the County could accomplish this through the next Circulation Element update to minimize mode conflicts for active transportation network implementation. Additionally, car, bike and scooter sharing services could be specifically addressed or supported in this policy.

Funding Source(s):

Riverside General Plan C 1.8. *An important mobility policy in the Riverside General Plan seeks to ensure that all development applications comply with the California Complete Streets Act of 2008, as set forth in California Government Code Sections 65040.2 and 65302.*

This policy states that development applications should comply with the 2008 California Complete Street Act (Assembly Bill (AB) 1358), which mandates that cities and counties include complete street policies in their general plans. Streets are considered "complete" if they accommodate all users of all ages and abilities. Policies that facilitate the creation of complete streets are centered around active transportation and promote healthy living.

This policy can be strengthened by referencing that development projects should be consistent with the intent of AB 1358—to design streets for users of all ages and abilities. The National Complete Streets Coalition has identified the 10 components of a good complete street policy:

1. Vision and intent: Includes an equitable vision for how and why the community wants to complete its streets. Specifies need to create complete, connected, network and specifies at least four modes, two of which must be biking or walking.

2. Diverse users: Benefits all users equitably, particularly vulnerable users and the most underinvested and underserved communities.

3. Commitment in all projects and phases: Applies to new, retrofit/reconstruction, maintenance and ongoing projects.

4. Clear, accountable expectations: Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to exceptions being granted.

5. Jurisdiction: Requires interagency coordination between government departments and partner agencies on Complete Streets.

6. Design: Directs the use of the latest and best design criteria and guidelines and sets a time frame for their implementation.

7. Land use and context sensitivity: Considers the surrounding community's current and expected land use and transportation needs.

8. Performance measures: Establishes performance standards that are specific, equitable and available to the public.

9. Project selection criteria: Provides specific criteria to encourage funding prioritization for Complete Streets implementation.

10. Implementation steps: Includes specific next steps for implementation of the policy (Smart Growth America 2019)

All Coachella and County policies should be consistent with these components .

Funding Source(s):

Riverside General Plan C 4.2. *Maximize visibility and access for pedestrians and encourage the removal of barriers (walls, easements and fences) for safe and convenient movement of pedestrians. Special emphasis should be placed on the needs of disabled persons considering Americans with Disabilities Act (ADA) regulations.*

This policy could be strengthened for grant applications by creating a list of priority intersections based on the findings of this plan and using Transportation Injury Mapping System (TIMS) database. These intersections should then be paired with potential grant opportunities and capital improvement schedule .

Funding Source(s):

Riverside County General Plan Policies C 12.1 – 12.6. *These policies in concert address areas such as creating transit centers, supporting the creation of transit routes between major activity nodes, building transit-priority infrastructure and utilizing standard guidelines for developing transit oases. The creation of transit centers and transit oases would promote the use of public transportation, which results in a reduction in GHG emissions.*

These policies should include identifying potential transit hubs using extensive public outreach data. These policies could also be strengthened through consideration of alternative parking strategies that encourage biking, ride sharing and low emission vehicles—including designating bike parking, carpool, electric vehicle and hybrid spaces. Additionally, large transit centers could benefit from adding designated curb space for drop off, which could serve private ride-share, vanpools and kiss and ride. Such parking and curb space requirements could be added into the Coachella or County code in addition to, or in place of, some required parking in areas designated as transit oases .

Funding Source(s):

TIMS

TIMS is a free statewide car accident database managed by the University of California, Berkeley. The active transportation database includes mapping of bicycle and pedestrian collisions that result in a complaint of pain, injury or death. Communities can use this data to identify intersections where grant funding would be best used, and to track intersections over time to see if new traffic-calming features are reducing the number of collisions.

"Kiss and Ride"

"Kiss and Ride" is a common term for designated drop-off locations at transit stations, where mass-transit users are dropped off by their significant other. Unlike, park and ride, kiss and ride, does not require parking spaces.

EQUITABLE ACCESS TO HOUSING

As explored in Chapter 3, housing affordability is a holistic goal that includes protecting low-income renters, reducing housing costs through design and reducing utility expenses. For the purposes of the Eastern Coachella Valley Climate Action Plan for Climate Resilience, a policy is effective if it is clearly **linked to a grant requirement or reduces energy and transportation costs** to residents. The following recommendations are designed to strengthen existing plan policies to be clear and measurable in supplying a climate resilient and affordable housing stock.

City of Coachella General Plan and Climate Adaptation Plan Policy 2.13 Housing Displacement. *Require a Health Impact Assessment for any development that causes residential displacement for both established and informal housing within the City and Sphere of Influence.*

Local governments that have anti-displacement policies can get extra points on their affordable housing grants. This policy could be improved by adopting tenant protections such as banning discrimination based on income and, adopting a just cause eviction policy or adopting an inclusionary zoning policy. This policy should be crafted in consultation with the AHSC grant requirements (see Chapter 6). A range of potential anti-displacement policies are presented in Chapter 4.

Funding Source(s): , *Other Funding Sources: Housing Programs (Senate Bill 1, Senate Bill 2)*

City of Coachella General Plan and Climate Adaptation Plan Policy 2.13 Unbundled parking. Allow and encourage developers of residential, mixed-use and multi-tenant commercial projects to unbundle parking costs from unit sale and rental costs in denser, mixed-use areas to give tenants and owners the opportunity to save money by using fewer parking spaces.

Unbundling of parking can reduce the cost of housing by not forcing a resident to also take on the cost of a parking space. This is especially important for developments near transit stops that serve families with limited automobile access. This policy can be strengthened by requiring unbundled parking for multifamily housing that will be well served by transit. Alternatively, this policy could be strengthened by allowing developments to reduce parking if they provide transportation improvements, such as a bike share, sidewalk improvements or other emerging technologies addressed in Chapter 4 .

Funding Source(s):

City of Coachella General Plan and Climate Adaptation Plan Implementation Action Item 4: Energy Efficiency Education. Organize workshops on how to increase energy efficiency of homes and businesses through topics such as home weatherization, building envelope design, smart lighting systems and conducting a self-audit of energy usage.

This policy could be included in affordable housing projects to help empower residents to utilize the energy-saving technologies used as part of affordable housing projects. By increasing energy efficiency, residents are more resilient to rising energy costs due to extreme heat and increased demand for air conditioning .

Funding Source(s): , *Other Funding Sources: LIWP*

City of Coachella General Plan Housing Element Action 4.8: Single-Room Occupancy Units. *Amend the Zoning Code to define single-room occupancy units (SROs) and identify zones in which SROs are allowed. Facilitate the development of SROs as appropriate housing type for persons with special needs and extremely low incomes.*

This policy could be strengthened by reviewing the zones in which SROs are allowed to ensure that there are adequate sites for SROs to be developed within walking distance to transit and community support services .

Funding Source(s):

City of Coachella General Plan Housing Element Action 6.4: Density Bonus. *Continue to offer a density bonus in keeping with state law (Government Code Section 65915).*

This policy can be strengthened and expanded by creating an overlay zone in a one-quarter-mile radius around transit stops that allows for residential parcels to up-zone and increase the maximum density of residential units allowed if they also provide transit infrastructure, such as a bike or scooter parking area, or incorporate improved mobility for residents walking or biking. This policy could also be expanded by offering a greater bonus than the state by offering unbundled parking or additional bonuses if a developer met certain community benefits, such as flexible transit service .

Funding Source(s):

County of Riverside Housing Element Action 1.1d Project Assistance. *Continue to offer fast track/priority processing, gap financing options, density bonus and fee deferral and subsidies (when funding is available) to developers of County-assisted projects proposing new housing, mixed-use or infill projects affordable to lower-income households, farm workers, seniors and other special needs groups.*

This policy could be expanded to non-County assisted projects which meet those requirements, including mobile home parks. This policy could also be expanded into Coachella .

Funding Source(s):

County of Riverside Housing Element Action 1.1e Housing Site Assistance. *When funding is available, the County shall assist to write down land costs of acquiring sites, offer assistance with land acquisition and other upfront costs as well as assistance in securing federal or state housing financing resources for projects which reserve a proportion of units affordable to lower-income households (incomes below 80 percent of the County median).*

This policy could be expanded to Coachella. This policy could also be bolstered by working in tandem with a grant writing professional to first identify opportunity sites that Coachella or the County will prioritize.

Funding Source(s):

County of Riverside Housing Element Action 1.7b *Mobile and Manufactured Housing Encourage construction of new mobile home parks and manufactured housing to increase the supply of affordable dwelling units by continuing to waive the fees (when funding is available) as an incentive.*

This policy could be expanded to include encouraging the use of green infrastructure such as trees, bioswales and community gardens in new mobile home parks. This policy could also address upgrades to existing mobile home parks, including water and wastewater infrastructure, when expansions are proposed. Additionally, because many existing mobile home parks in the region are sited on tribal land, this policy could be strengthened by working with tribal nations and providing technical guidance on leveraging funding .

Funding Source(s):

intentionally left blank

6 Technical Guidance

This chapter outlines how local agencies can design projects that would both be grant competitive and meet the needs of the resident of the eastern Coachella Valley. This Eastern Coachella Valley Climate Action Plan for Climate Resilience (Action Plan) is primarily focused on five cap-and-trade grant opportunities and other relevant grant programs as presented in Chapter 1 (Introduction). But it can also be a resource for when applying for similar funding opportunities. Projects that are located within, and provide meaningful benefits to, disadvantaged communities (DACs) are more likely to receive funding, and many projects must demonstrate reduction in greenhouse gases (GHGs). This chapter provides technical guidance in designing and presenting projects in DACs that maximize GHG reduction, shows how best to present the project-level GHG reduction data to the funding agencies and outlines the key scoring requirements for the five grants explored in this Action Plan.

Disadvantaged Community

A DAC is defined in California state law as a **low-income** area that is **disproportionately affected** by **environmental pollution** and other hazards that can lead to negative health effects, exposure or environmental degradation (CEJA 2018).

Disadvantaged Communities

The first step in qualifying for grant funding is to demonstrate that a project is located within a DAC and to clearly identify how the proposed project would respond to community-identified needs. The requirements for being categorized as a DAC by the state are based on coarse state averages, and in response competitive grant projects should describe a wide range of community-level data to illustrate how the project serves the specific needs of the community. This section outlines how to use various methods both to prove that projects are eligible for grant funding and to outline the specific needs of the eastern Coachella Valley. An example of how this is done effectively is provided in Appendix B (Grant Competitiveness Evaluation).

The most common methods to determine if a community is a DAC include using data from the California Communities Environmental Health Screening Tool (CalEnviroScreen), income data from the American Community Survey and the California Healthy Places Index (HPI). Each method uses a different set of community measures that can make the eastern Coachella Valley more or less competitive for grants given the unique needs and circumstances of the region. Each method is described below.

CalEnviroScreen 3.0

CalEnviroScreen is the most common mapping tool used to determine if a community is disadvantaged. CalEnviroScreen measures the cumulative impact of pollution burden (such as air quality and proximity to hazardous waste sites) and social and economic vulnerabilities (such as poverty or lack of English language proficiency). This ranking serves to identify those communities that are affected most by pollution and have the fewest economic and social means to protect themselves from it. The CalEnviroScreen tool ranks each census tract statewide and gives each census tract a score that reflects its relationship to other communities (i.e., if a census tract has a score of 90, it is in the top 10% of DACs statewide).

Generally, if a census tract scores above 75%, it is considered disadvantaged. In the first two rounds of the Transformative Climate Communities (TCC) program, Implementation funding is only available to communities in the top 5% (**see Table 6-1**).

CalEnviroScreen was designed to help CalEPA identify disadvantaged communities as required by SB 535, which focuses on geographic, socioeconomic, public health and environmental hazard criteria. The CalEnviroScreen formula gives greater weight to pollution burdens from sources seen in urbanized areas than it does some of the other factors, such as the population characteristics. As a result, the CalEnviroScreen score does not adequately illustrate the specific disadvantages in the eastern Coachella Valley.

Table 6-1 outlines the CalEnviroScreen score for each census tract within the eastern Coachella Valley. Only four communities meet the CalEnviroScreen threshold to be considered a DAC. Generally, communities in the eastern Coachella Valley score much higher on social vulnerabilities than on pollution burden. The lack of urban pollution and unreliable health data (described below) reduce the pollution burden in many communities, which disqualifies them from being considered DACs.

Table 6-1. Eastern Coachella Valley Quick Look – CalEnviroScreen 3.0

Census Tract	CalEnviroScreen 3.0 Percentile	Pollution Burden Score	Social Vulnerability Score
▪ 9404	**85%–90%**	**81**	**78**
▪ 456.04	**80%–85%**	**69**	**85**
▪ 456.05	70%–75%	61	69
▪ 456.06	15%–20%	13	28
▪ 456.09	70%–75%	69	62
▪ 457.03	65%–70%	43	78
▪ 457.04	55%–60%	20	85
▪ 457.05	50%–55%	16	83
▪ 457.06	**80%–85%**	**65**	**84**
▪ 457.07	**75%–80%**	**56**	**82**
▪ 452.26	25%–30%	6	56
Average	**60%–65%**	**45.36**	**71.82**

Notes: *Bold text indicates census tracts that meet the CalEnviroScreen threshold for DACs.*
Source: *OEHHA 2018.*

Income Data

DACs can also be defined by their income compared to the statewide median household income. Any census tract with a median household income below 80% of the statewide median is considered disadvantaged in Assembly Bill 1550. Both the local and statewide data are re-tabulated annually with the latest American Community Survey 5-year data. The 2019 state income limit for a family of four is $82,200, and the 80% threshold is $65,600 (HCD 2019). Table 6-2 presents income data for the eastern Coachella Valley in 2017, the most recent year for which data is available. In 2017 the statewide median income was $71,850, and the 80% threshold was 54,444 (DOF 2018). All census tracts in the eastern Coachella Valley, except 452.26 in the northwest corner of the City of Coachella (Coachella), were below the 80% threshold in 2017.

AB 1550 is a better reflection of the region's demographics and challenges. Eastern Coachella Valley communities have some of the highest levels of unemployment and households living in poverty in California. This leads to high levels of households without access to health insurance, healthy food and medical care. Competitive grant applications will highlight these specific data and needs when both proving eligibility for grant funds and crafting a compelling needs statement.

Table 6-2. Eastern Coachella Valley Quick Look – Low Income Areas (2017)

Census Tract	Median Household Income	Poverty[a]	Unemployed Adults
▪ 9404	$ 45,684	57.0%	30.9%
▪ 456.04	$ 27,136	75.1%	40.8%
▪ 456.05	$ 30,347	76.9%	42.4%
▪ 456.06	$ 54,688	31.7%	40.6%
▪ 456.09	$ 26,941	64.3%	40.3%
▪ 457.03	$ 32,404	65.8%	34.6%
▪ 457.04	$ 30,735	64.2%	40.7%
▪ 457.05	$ 30,621	80.5%	37.6%
▪ 457.06	$ 30,775	71.7%	37.4%
▪ 457.07	$ 40,953	59.6%	25.2%
▪ 452.26	$ 58,900	32.9%	23.0%
Average	**$ 37,199**	**61.8%**	**35.8%**

Notes: [a] *This is measured as the percentage of people that have income below 200% of the federal poverty level; 200% is used because of the high cost of living in California.*
Source: *U.S. Census Bureau 2017; PHASC 2018*

California Healthy Places Index

The California Healthy Places Index (HPI) was developed to measure the cumulative health advantage in communities across California. The cumulative health advantage reflects a range of social and environmental indicators that are known as the social determinants of health. Each social determinant is weighted by its effect on life expectancy so that the cumulative health advantage score can quickly communicate the determinants' collective impact on community lifespan. Each census tract is then provided a percentile score that reflects that tract's HPI score as compared to those of the rest of California (ODPHP 2018).

The HPI measures a large range of social determinants that can help outline specific community vulnerabilities not included in CalEnviroScreen and bolster grant applications. **Table 6-3** outlines each social determinant and which grant applications it should be included in to better describe the specific community need.

Social Determinants of Health

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning and quality-of-life outcomes and risks.

Examples of social determinants of health include the following:

- Access to healthy food
- Access to safe drinking water
- Access to safe housing
- Quality of education and job training
- Language and literacy

Table 6-3. California Healthy Places Index Community Vulnerabilities

Category	Measure	Affordable Housing Sustainable Communities	Transformative Climate Communities	Sustainable Agriculture Land Conservation	Urban Greening	Active Transportation Program	Water-Energy
Economic	Poverty	■	■				■
	Employed	■	■				■
	Median Household Income	■	■				■
Education	Bachelor's Degree or Higher		■				■
	High School Enrollment		■				■
	Preschool Enrollment		■				
Transportation	Automobile Access	■	■	■		■	
	Active Commuting	■	■	■		■	

Notes: *Green-shaded areas denote community indicators that should be used to illustrate community need when pursuing the grants presented in the columns.*
Source: *PHASC 2018.*

Table 6-3. (continued) California Healthy Places Index Community Vulnerabilities

Category	Measure	Affordable Housing Sustainable Communities	Transformative Climate Communities	Sustainable Agriculture Land Conservation	Urban Greening	Active Transportation Program	Water-Energy
Social	Two Parent Households						
	Voting						
Neighborhood	Alcohol Availability						
	Park Access						
	Retail Density						
	Supermarket Access						
	Tree Canopy						
Clean Environment	Clean Air – Diesel PM						
	Safe Drinking Water – Contaminants						
	Clear Air – Ozone						

Notes: *PM = particulate matter; PM2.5 = fine particulate matter (less than or equal to 2.5 microns in aerodynamic diameter). Green-shaded areas denote community indicators that should be used to illustrate community need when pursuing the grants presented in the columns.*
Source: *PHASC 2018.*

Table 6-3. (continued) California Healthy Places Index Community Vulnerabilities

Category	Measure	Affordable Housing Sustainable Communities	Transformative Climate Communities	Sustainable Agriculture Land Conservation	Urban Greening	Active Transportation Program	Water-Energy
Neighborhood	Homeownership						
	Housing Habitability						
	Low-Income Homeowner Severe Housing Cost Burden						
	Low-Income Renter Severe Housing Cost Burden						
	Uncrowded Housing						
Social	Insured Adults						

Notes: *Green-shaded areas denote community indicators that should be used to illustrate community need when pursuing the grants presented in the columns.*
Source: *PHASC 2018.*

Greenhouse Gas Reduction

Quantitative GHG reduction data is often required in cap and trade grant applications. Projects can quantify these reductions using various tools approved by the California Air Resources Board, including the California Emissions Estimator Model (CalEEMod) and iTree Species. These key tools are described below.

California Emissions Estimator Model

CalEEMod is a statewide computer-modeling tool to estimate the GHG emissions of a wide variety of development projects, including homes, parks and shopping centers. CalEEMod is also used to demonstrate the reduction of GHG emissions from various project design features. Many projects seeking cap-and-trade funds must calculate their emissions using CalEEMod. The California Air Pollution Control Officers Association publishes a User's Guide for each version of CalEEMod that can be used to walk through the basic steps of running CalEEMod (CAPCOA 2017). CalEEMod should be performed by an air quality specialist tool whenever possible to generate the most accurate results.

Additionally, the Affordable Housing Sustainable Communities (AHSC) Program includes a calculator tool that supplements the use of CalEEMod. The AHSC program focuses on vehicle miles traveled (VMT) reduction to calculate GHG savings for projects. The three major VMT reduction strategies considered by the AHSC program are: increasing density, traffic calming and transit subsidies, each of which are explained below (CARB 2018). Grant applications should focus on providing improvements that are quantifiable under the three calculations shown under Increase Density (LUT-1).

Increase Density (LUT-1)

Increasing density reduces the amount people drive by shortening distances between uses. This can encourage the use of transit, biking, walking and shorter car trips. This measure can reduce VMT between 8% and 30%. This measure is only applicable in urban and suburban contexts. The key data inputs for this measure are the number of housing units per acre and number of jobs per acre. CalEEMod assumes a default density of 7.6 housing units per acre and 20 jobs per acre, and only densities higher than this amount will result in VMT reductions.

CalEEMod calculates increased density in the following calculations:

Housing: (number of housing units per acre = 7.6) / 7.6

Jobs: (number of jobs per acre = 20) / 20

If a project has 25 housing units per acre, the calculation would be as follows: **(25 – 7.6) / 7.6 = 2.29% reduction.**

VMT Reductions

CalEEMod calculates the reduction in VMT from project elements, such as free transit passes to residents, by applying reductions similar to those found in case studies and academic research. Each strategy also has a pre-determined maximum effectiveness. Detailed calculations are available in Quantifying Greenhouse Gas Mitigation Measures (CAPCOA 2010).

Land Use Setting

The efficacy of each VMT reduction measure is affected by how rural or urban the project location is. Generally, VMT reductions are more effective in urban environments, as they have more existing walking, biking and public transportation options. CalEEMod includes four land use settings:

Low Density Suburban: An area where homes and businesses are separated and people need cars to do daily errands.

Suburban Center: An area that serves a low-density suburban area with office and retail. These areas are similar to town centers.

Urban: An area in the city with multifamily housing, office, retail and transit stops.

Urban Center: An area that is located within or contiguous with the central city. Examples may include redevelopment areas, abandoned sites or underutilized older buildings/ sites (CAPCOA 2017).

Provide Traffic Calming Measures (SDT-2)

Traffic calming makes it safer to walk or bike, and therefore encourages fewer driving trips. This can encourage the use of transit, biking and walking. This measure can reduce VMT between 0.25% and 1%. This measure is applicable in urban, suburban and rural contexts. The key data inputs for this measure are the percentage of streets and intersections with traffic calming improvements.

Table 6-4. Traffic Calming Reduction Calculation

Percentage of Intersections with Improvements	Percentage of Streets with Improvements			
	25%	50%	75%	100%
	Percentage of VMT Reduction			
25%	0.25	0.25	0.50	0.50
50%	0.25	0.50	0.50	0.75
75%	0.50	0.50	0.75	0.75
100%	0.50	0.75	0.75	1.00

Notes: *Traffic calming features may include marked crosswalks, speed tables, street trees, countdown crosswalks and raised crosswalks.*

Source: *CAPCOA 2010.*

Implement Transit Subsidies (TRT-4)

In places where frequent public transit exists, providing free or reduced transit passes encourages people to take transit to work. This measure is only applicable to employment uses, as it measures the percentage of employees who receive a subsidy and the amount of the subsidy. This measure can reduce VMT between 0.3% and 20%. This measure is only applicable in urban and suburban contexts. The key data inputs for this measure are the land use setting (urban, suburban center or low density suburb) and the daily transit subsidy as shown in **Table 6-5**.

Table 6-5. Transit Subsidies Reduction Calculation

Worksite Setting	Daily Transit Subsidy			
	$0.75	$1.49	$2.98	$5.96
	Percentage of VMT Reduction			
Low Density Suburb	1.5%	3.3%	7.9%	20.0%
Suburban Center	3.4%	7.3%	16.4%	20.0%
Urban Location	6.2%	12.9%	20.0%	20.0%

Source: *CAPCOA 2010.*

iTree Species Tool

In addition to reducing GHGs, trees can have many benefits, including providing habitat, shade, reducing building energy use, cleaning the air and storing carbon. Projects pursued as a result of this Action Plan will want to select trees based on multiple benefits and on the location and purpose of the trees; however, all projects should maximize carbon dioxide (CO_2) storage to improve their overall GHG reduction score. Projects can rank trees based on their specific needs using the iTree Species tool. **Table 6-6** presents trees on the County and Coachella's preferred plant lists that were identified by iTree as ranking the highest for removing carbon, reducing air pollution and reducing air temperature.

Table 6-6. iTree Species Top 10% Trees for the Coachella Valley

Common Name	*Species Scientific Name*
Coast redwood	*Sequoia sempervirens*
Tulip tree	*Liriodendron tulipifera*
American elm	*Ulmus Americana*
American basswood	*Tilia Americana*
California sycamore	*Platanus racemose*
Southern magnolia	*Magnolia grandiflora*
Arizona sycamore	*Platanus wrightii*
Oriental planetree	*Platanus orientalis*
Red maple	*Acer rubrum*
Cork oak	*Quercus suber*
White alder	*Alnus rhombifolia*
American sycamore	*Platanus occidentalis*
Northern hackberry	*Celtis occidentalis*
Bunya bunya	*Araucaria bidwillii*
Slash pine	*Pinus elliottii*
Roble	*Nothofagus obliqua*
Bigleaf maple	*Acer macrophyllum*
Norfolk Island pine	*Araucaria excels*
Black walnut	*Juglans nigra*
White ash	*Fraxinus Americana*
Water tupelo	*Nyssa aquatic*
Ribbon gum eucalyptus	*Eucalyptus viminalis*
Black cherry	*Prunus serotine*

Note: *Tree species were ranked on reducing carbon, pollution and air temperature.*

Table 6-6. iTree Species Top 10% Trees for the Coachella Valley

Common Name	*Species Scientific Name*
Water hickory	*Carya aquatic*
Sugarberry	*Celtis laevigata*
Raulí	*Nothofagus alpine*
Silver maple	*Acer saccharinum*
Brown's hickory	*Carya ×brownii*
Southern shagbark hickory	*Carya carolinae-septentrionalis*
Collin hickory	*Carya ×collina*
Demaree hickory	*Carya ×demareei*
Dunbar's hickory	*Carya ×dunbarii*
Laney's hickory	*Carya ×laneyi*
Leconte's hickory	*Carya ×lecontei*
Hickory	*Carya ×ludoviciana*
Nutmeg hickory	*Carya myristicformis*
Nussbaumer's hickory	*Carya ×nussbaumeri*
Red hickory	*Carya ovalis*
Carya hickory	*Carya pumilia*
Schneck's hickory	*Carya ×schneckii*
Black hickory	*Carya texana*
Mockernut hickory	*Carya alba*
Sand hickory	*Carya pallida*
Pecan	*Carya illinoensis*
Bitternut hickory	*Carya cordiformis*
Coigüe	*Nothofagus dombeyi*

Note: *Tree species were ranked on reducing carbon, pollution and air temperature.*

Grant Overview

The final step in qualifying for grant funding is designing projects that score competitively within the specific grant requirements. Each grant explored in this section has unique requirements that must be leveraged on to win grant funding. This section outlines project outcomes, key requirements and local opportunities and challenges of each grant. These requirements inform the choice of local projects outlined in the following chapter to highlight the most competitive projects.

AFFORDABLE HOUSING AND SUSTAINABLE COMMUNITIES PROGRAM

Program Overview

Program Description

The AHSC is a competitive grant program that funds affordable housing near jobs, stores, transit and other daily needs. The goal of the AHSC grant program is to reduce the reliance on personal vehicle use by making it easier to walk, bike or take public transit. AHSC provides funding for affordable housing (new construction or renovation) and active transportation infrastructure such as bike lanes, sidewalks, shade trees or bus shelters (SGC 2018a).

Project Outcomes

A successful AHSC project will do the following:

- Reduce air pollution.
- Improve housing conditions in DACs.
- Improve public health.
- Improve access to jobs, housing and services.
- Increase opportunities to walk, bike and take transit.
- Build compact infill development (SGC 2018b).

Table 6-7. AHSC Grant Requirements

Project Area Requirements			
Criteria	*Grant Requirements*	*Project Area*	*Does the Project Meet the Criteria?*[a]
Disadvantaged community (CalEnviroScreen 3.0)	Scores above 75%		
Low-income community	At or below 80% of state AMI		
Low-income household	At or below 80% of state AMI		
Proximity to transit stop	Transit stop within a 1/4 mile of the project		
Qualifying transit	At least two departures per peak hour		
Sustainable Transportation Infrastructure			
Infrastructure Type[b]	*Metric*	*How Does the Project Meet the Criteria?*	
Context sensitive bikeway	Miles and classification		
Sidewalk	Feet of new or repairs		
Bike share	Number of bikes and pricing		
Street crossing enhancements	Describe improvements		
Shade trees	Number and species		
Bus shelter improvements	Describe improvements		
Bike racks	Number and type		

Notes: *AHSC = Affordable Housing Sustainable Communities; AMI = area median income; [a] Only one of the DAC indicators must meet the grant requirements. [b] Italic font indicates that this type of infrastructure was considered desirable by participants in community outreach.*

Source: *SGC 2018a.*

Program Requirements

Table 6-7 outlines the major requirements of the AHSC grant. Each grant application is given points based on how well it meets the goals of the program. Grant applicants can make their applications more competitive by demonstrating that their projects are cost effective and address the needs of the public. Competitive applications use low cost strategies to reduce GHGs and show that every dollar the state gives them will reduce more GHGs than the other projects submitted. Competitive applications will also describe how the projects will fulfill the needs and wants of local residents as discussed at public outreach events.

Table 6-7. (continued) AHSC Grant Requirements

Active Transportation Improvements			
Improvement	*Scoring Criteria*	*Project Points*	*Description of Improvement*
Context sensitive bikeway	>2 miles = 3 points; 0.5–2 miles = 2 points; <0.5 miles = 1 point		
Connection between transit or affordable housing and key destination by bikeway	1 point		
Increase bicycle safety on existing route	1 point		
Safe and accessible walkways	>3,000 feet = 3 points; 3,000–2,000 feet = 2 points; <2,000 feet = 1 point		
Connection between transit or affordable housing and key destination by walkway	1 point		
Increase pedestrian safety on existing route	1 point		
Green Buildings and Renewable Energy			
Improvement	*Scoring Criteria*	*Project Points*	*Description of Improvement*
Green Building Standards[c]	3 points		
CALGreen – Tier 2			
LEED – Gold			
Energy Star – Certified			
Green Point Rated – New construction gold, rehabilitation whole building			
Energy producer	33% of building energy is produced on site through renewable sources = 2 points		
Zero net energy	The project produces as much energy as it consumes over the course of a year = 3 points		

Notes: *CALGreen = California Green Building Standards; LEED = Leadership in Energy and Environmental Design; [c] Choose one rating system per project. Italics indicate the rating system can apply to mobile homes.*
Source: *SGC 2018a.*

Table 6-7. (continued) AHSC Grant Requirements

Housing and Transportation Collaboration			
Funding	*Scoring Criteria*	*Project Points*	*Description of Improvement*
Percentage of Sustainable Transportation Infrastructure finance request[d]	10% = 2 points; 15% = 4 points; 25% = 6 points		
Transportation Related Amenities and Transit Station or Stop	5% of funds spent on Transportation Related Amenities at a Transit Station or Stop = 2 points; 5% of funds on Transportation Related Amenities apart from a Transit Station or Stop		
Other Greenhouse Gas Reduction Fund programs	1 point		
EPA Walkability Score	Most Walkable = 3 points; Above Average Walkable = 2 points; Below Average Walkable = 1 point		
Map of key destinations within project area[e]	Grocery store = 0.5 points		
	Medical clinic that accepts Medi-Cal payments = 0.5 points		
	Public elementary, middle or high school = 0.5 points		
	Licensed childcare facility = 0.5 points		
	Pharmacy = 0.5 points		
	Park accessible to general public = 0.5 points		
	Public library = 0.5 points		
Housing Affordability			
Funding	*Scoring Criteria*	*Project Points*	*Description of Improvement*
Percentage of total units restricted to extremely low income households	>20% = 5 points		
	16%–20% = 4 points		
	11%–15% = 3 points		
	5%–10% = 2 points		

Notes: *EPA = Environmental Protection Agency.* [d] *This only applies to projects requesting at least $1 million.* [e] *Each location type may only be counted once.*
Source: *SGC 2018a.*

Local Implementation

Opportunities

Walkable Downtowns

The AHSC grant gives additional points to projects within areas with high U.S. Environmental Protection Agency walk scores. These walk scores are based on the National Walkability Index, which ranks all the block groups nationwide. While most of the eastern Coachella Valley is rural and not considered walkable, community centers in Coachella and the unincorporated community of Mecca are considered as *most walkable* or *above average walkable*. These areas also include infill opportunities for AHSC sites, and were considered when recommending sites for the AHSC grant in Chapter 7 (Community Project Recommendations).

Community Eligibility

The AHSC grant allows communities to demonstrate their eligibility as a DAC through income or CalEnviroScreen scores. While portions of the eastern Coachella Valley do not have CalEnviroScreen scores that meet the DAC threshold, almost the entire eastern Coachella Valley does meet the Assembly Bill 1550 income threshold and is therefore eligible for AHSC grants.

Challenges

Density and FAR

Projects funded by AHSC must meet certain density requirements. Dense housing allows people and services to be placed close together, creating walkable and bike-able environments. Dense housing is also better served by transit, as it allows many people to live within walking distance of a station. As of 2018, projects in the Coachella Valley must have either a density of more than 20 units per acre or a floor area ratio (FAR) of 1.5 or greater.

Infrastructure

Limited infrastructure, including lighting, sidewalks, municipal drinking water, municipal wastewater and flood control, was consistently identified in community outreach activities. Housing developments, especially at the density competitive for AHSC grants, require basic infrastructure that is not available in some areas in the eastern Coachella Valley. Similarly, existing neighborhoods may not be able to achieve their housing or resilience goals without basic infrastructure and services and flood protection.

Density

Density is the amount of housing units per acre. Simply put, this is how many homes or apartments you can fit on a football field. According to the City of Coachella General Plan, row-homes, courtyard apartments and standard apartments would all be appropriate for the densities required by the AHSC grant.

Floor Area Ratio

FAR refers to how much of the building covers a lot. A building with a FAR of 0.5 would cover half the lot, while a building with a FAR of 2 would cover the whole site as a two-story building, or half the site with a four-story building. Examples of sites with the minimum FAR required by the AHSC grant are illustrated in **Figure 6-1.**

TRANSFORMATIVE CLIMATE COMMUNITIES IMPLEMENTATION GRANT

Program Overview

Program Description

The TCC Implementation Grant program funds community-led projects in the most disadvantaged communities. Projects must significantly reduce GHG emissions, increase local resilience to climate change and be based on community engagement.

Project Outcomes

A successful TCC project will do the following:

- Significantly reduce GHG emissions.
- Avoid the displacement of existing households and small businesses.
- Ensure community engagement.
- Leverage funding.
- Increase local resilience to climate change.
- Provide workforce and economic development.

Program Requirements

Table 6-8 outlines the major requirements of the TCC grant. Each grant application is given points based on how well it meets the goals of the program

Table 6-8. TCC Grant Requirements

Project Area Requirements				
Census Tract CalEnviroScreen Score				
Project Description				
Potential Regional Partner Agencies				
Consistency with Local Plans				
Transformative Requirements				
Greenhouse Gas Reduction	*Policy*	*Performance Indicator*	*GHG Reduction*	*Climate Adaptation*
Displacement Avoidance Policies				
Community Support				
Other Funding Opportunities				

Source: *SGC 2018b.*

Local Implementation

Opportunities

Partnerships

The eastern Coachella Valley is home to multiple agencies that have had previous grant success and could help each other leverage funding and build projects that meet the wide range of TCC requirements. A number of these partners were already engaged as part of this Action Plan's development, which has included:

- **Leadership Counsel for Justice and Accountability**, which led the public outreach for this Action Plan and has been instrumental in implementing TCC projects in the community of Fresno;
- **Sunline Transit Agency,** which is the Valley's public transit provider. SunLine has a track-record of securing cap-and-trade funding, a long history of innovation and can help link their new projects, such as Sunline TNC, or improved routes to potential TCC projects to demonstrate a reduction in VMT and related GHGs.
- **Lift to Rise**, which is a collective action partnership that is address the underlying causes and consequences of poverty in the Coachella Valley. Lift to Rise is actively working to address rent burden and the availability of affordable housing, including in the region covered by this Action Plan.
- **The Desert Recreation District**, which has also had previous success in receiving urban greening funds. They could assist in improving climate resiliency through the use of vegetation, recommending plants that have high GHG reduction scores and have reasonable ongoing maintenance requirements and helping calculate the GHG savings from trees and other natural features.

Extensive Outreach

As a result of extensive outreach efforts both for this Action Plan, for the Neighborhood Mobility Plan for Thermal and Oasis and for the AHSC project proposed in downtown Coachella, community residents have been able to present their clear needs, priorities and potential project ideas. This feedback is enshrined in multiple plans and can be used to identify community support. The outreach results in both plans were considered when recommending TCC projects in Chapter 7.

Challenges

CalEnviroScreen 3.0

The first two rounds of TCC Implementation Grants required that funded communities score in the top 5% of CalEnviroScreen 3.0. No communities in the eastern Coachella Valley meet this threshold; however, changes to CalEnviroScreen or the grant requirements could make communities in the eastern Coachella Valley eligible.

CalEnviroScreen is not the only method for defining a DAC; however, it is the most common tool and is often a requirement that disqualifies communities in the eastern Coachella Valley from receiving grants. CalEnviroScreen data points do not accurately represent the health effects in the eastern Coachella Valley, because the score is weighted on urbanized pollution sources over other factors, such as climate change.

Population Density and Transit

TCC Implementation Grants have historically favored large urban projects that include large apartment buildings and light-rail service. The eastern Coachella Valley is largely rural and low density. Very few structures in the eastern Coachella Valley are larger than one story, and bus service is limited. Basic infrastructure, such as water, sewer and sidewalks, is lacking in the eastern Coachella Valley. Additionally, large developments in the area are infeasible and out of scale with the community. The lack of funds for rural communities further isolates these communities and prevents money from being used to help the eastern Coachella Valley develop sustainability. Programs such as TCC could provide a unique opportunity to address housing and infrastructure needs in relatively rural areas like this, should the funding guidelines be revised to allow for these applications in the future. This would allow for the residents to have a say on how its community is developed rather than piece meal development based on individual projects.

SUSTAINABLE AGRICULTURAL LAND CONSERVATION

Program Overview

Program Description

The Sustainable Agriculture Lands Conservation (SALC) Program provides grants to projects protecting farmland that captures carbon. Projects can also increase local food, reduce flooding and increase groundwater. The SALC Program funds planning and implementation efforts. No specific project proposals or project sites were identified in community outreach for this Action Plan; however, community needs that align with SALC goals were highlighted at many outreach events, including preventing urban development in flood-prone areas, reducing air pollution and increasing access to affordable and healthy food. This Action Plan will focus on potential planning projects that could be eligible for SALC funding and meet the goals of community members.

Project Outcomes

A successful SALC project will do the following:

- Reduce GHG emissions through changes in development patterns.
- Increase carbon sequestration.
- Improve watershed health and groundwater recharge.
- Increase access to recreational and educational programs for DACs.
- Strengthen the agricultural economy (ILG 2019).

Program Requirements

Table 6-9 outlines the major requirements of the SALC grant. Each grant application is given points based on how well it meets the goals of the program.

Table 6-9. SALC Grant Requirements

Selection Criteria	Points
Threat of Conversion/Greenhouse Gases Avoided	
The project avoids a greater number of GHG emissions per acre relative to projects that propose to conserve comparable land uses within the pool of applicants evaluated this round.	15
The property is located within 2 miles of a city sphere of influence for a city with a population greater than 5,000, or within 2 miles of a census designated place with a population greater than 5,000.	10
The conserved property would act as or add to a community separator between two communities or a greenbelt along the edge of a single community.	10
The property is identified for conservation in an adopted conservation plan, regional conservation program, mitigation plan or sustainable communities strategy.	10
The property is subject to conversion risks in addition to the identified Risk Options.	5
Agricultural Use	
The property is in active agricultural production, including cultivated and non-cultivated agriculture (e.g., rangeland and pasture).	5
The property is surrounded by other parcels with sizes and land uses likely to support long-term commercial agricultural production.	5
The property has no known agricultural constraints due to soil or water contamination.	5
The property has adequate water availability and water quality for agricultural purposes.	5
The property incorporates or is in the process of incorporating on-farm conservation management practices that build soil health for soil carbon sequestration or decreases GHG emissions.	5
The property incorporates or is in the process of incorporating on-farm land management practices that improve water use efficiency, conservation and reduction; increase use of recycled water; support groundwater recharge; or reduce reliance on groundwater.	5

Table 6-9. (continued) SALC Grant Requirements

Environmental Co-Benefits	
The property provides environmental conservation values or co-benefits in addition to those specified below (e.g., protection of open space, viewshed, wildlife habitat, biodiversity, riparian corridor or habitat along an elevational gradient).	10
The property is in strategic proximity to other permanently protected lands (e.g., other agricultural conservation easements, habitat conservation easements or other fee-title protection).	5
Economic Co-Benefits	
The property provides economic co-benefits (e.g., retention of local jobs and agricultural revenue; food production for local, national and/or international markets; or retention of entrepreneurial opportunities).	10
Public Health Co-Benefits	
The property provides public health co-benefits (e.g., reduction or elimination of pesticide use; access to affordable, nutritious foods; or reductions in food waste).	10
Priority Populations[a]	
The property is located within a priority population area as identified using CalEnviroScreen 3.0.	5
The property provides documented benefits to a priority population and qualifies for priority population status.	5
Applicant Support	
The applicant has the technical and fiscal capacity to secure and steward the easement, as evidenced by accreditation by the Land Trust Alliance.	5
The project is related to a SALC Planning Grant (this round) or Strategies and Outcome Grant (prior rounds).	5

Notes: *[a] To qualify as a priority population the project area must be one of the following: 1. A disadvantaged community census tract, as designated by CalEPA; 2. A low-income community census tract, as defined in HSC 39713; or 3. Within a half-mile of a disadvantaged community and within a low-income community census tract.*
Source: *SGC 2018c.*

Local Implementation

Opportunities

Agriculture Economy

The eastern Coachella Valley is an important farming region, providing food for the state and jobs for local residents. Local SALC projects will retain a local employment base and be enhanced through project features that increase local access to food. These improvements could include spaces for community gardens, education, job training or a farmers market, all of which were identified as potential projects during the outreach process.

Threats

Community Support

During outreach events, community members identified housing opportunities on many existing agricultural sites. While some of the sites are close to the city center and would be more effective as urban development than providing a greenbelt, many parcels identified were potentially better candidates for conservation. The push to build housing in agricultural land is bolstered by the relatively low land values in the eastern Coachella Valley that make it less expensive to build out and not up. Additionally, in many cases it is easier to provide new infrastructure for a raw site than to upgrade substandard infrastructure internal to the communities to accommodate infill growth. Before a SALC project is identified, the communities may choose to pursue a planning document that identifies key infill sites and key preservation sites to create a density transfer program.

Population

SALC grants give additional points to areas within two miles of a city's sphere of influence or census designated place with a population of 5,000 or more. Neither Thermal nor North Shore met this threshold in the 2010 Census. While most of Thermal is within two miles of Coachella's sphere of influence or Oasis's census designated place boundary, North Shore is not within these boundaries. Furthermore, a depressed Census count in 2020 could reduce either Mecca or Oasis below the 5,000-person threshold.

URBAN GREENING

Program Overview

Program Description

The Urban Greening Grant funds projects that use natural solutions to improve air quality and water quality, reduce indoor cooling demand and create more walkable and bike-able environments. Urban greening projects can include new parks, open space, trails and green streets (ILG 2018). Agencies in the eastern Coachella Valley have previously been successful at winning Urban Greening Grants.

All projects are required to show a reduction in GHG emissions and provide multiple other benefits, including, but not limited to, a decrease in air and water pollution or a reduction in the consumption of natural resources and energy. In order to quantify GHG emission reductions, projects must include at least one of the following activities:

- Sequestering and storing carbon by planting trees
- Reducing building energy use by strategically planting trees to shade buildings
- Reducing commute VMT by constructing bike paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers and schools

Eligible projects will result in the conversion of an existing built environment into green space that uses natural and green infrastructure approaches to create sustainable, vibrant communities. Projects located within and benefiting a DAC (CalEnviroScreen 3.0) will be the most competitive.

Project Outcomes

A successful Urban Greening project will do the following:

- Reduce GHG emissions through carbon sequestration.
- Incorporate green infrastructure solutions that improve the sustainability and function of existing urban hardscapes and landscapes.
- Acquire, create, enhance or expand community parks and green spaces, and/or use natural systems or systems that mimic natural systems to achieve multiple benefits.
- Provide park or recreational benefits to a critically underserved community or DAC.
- Develop partnerships with local community organizations and businesses to strengthen outreach to DACs, provide access to quality jobs for residents of DACs or provide access to workforce education and training.
- Use interagency cooperation and integration.

Use existing public lands and facilitate the use of public resources and investments, including schools.

Program Requirements

Table 6-10 outlines the major requirements of the Urban Greening Grant. Each grant application is given points based on how well it meets the goals of the program.

Table 6-10. Urban Greening Grant Requirements

Criteria	How Does the Project Meet These Requirements?
Does the project meet at least one of the three GHG reduction project activities below?	
Sequester and store carbon by planting trees.	
Reduce building energy use by strategically planting trees to shade buildings.	
Reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers and schools.	
Does the project meet at least one of the statutory requirements listed below?	
Acquire, create, enhance or expand community parks and green spaces.	
Use natural systems or systems that mimic natural systems to achieve multiple benefits.	
Is 50% or more of the project located within a publicly accessible area in a disadvantaged or low-income community? (Select all that apply.)	
a. Disadvantaged community (CalEnviroScreen 3.0 score above 75%)	
b. Low-income community (at or below 80% of statewide median income)	
c. Low-income community within a half mile of a disadvantaged community	

Source: *CNRA 2019.*

Table 6-10. (continued) Urban Greening Grant Requirements

Does the project serve a disadvantaged or low-income community? (Select all that apply.)	
a. Disadvantaged community (CalEnviroScreen 3.0 score above 75%)	
b. Low-income community (at or below 80% of statewide median income)	
c. Low-income community within a half mile of a disadvantaged community	
Does the project meet at least one of the following criteria? Mark all that apply.	
Will a majority of the trees planted be accessible by walking within a half mile of the disadvantaged or low-income community?	
Does the project reduce the flood risk to one or more adjacent disadvantaged or low-income communities?	
Does the project expand or improve the usability of existing active transportation routes?	
Does the project improve open spaces, parks, greenbelts and passive recreational areas publicly accessible by walking within a half mile of a disadvantaged or low-income community?	
Does the project reduce energy demand for households?	

Source: *CNRA 2019.*

Opportunities

Partnerships

The Coachella Valley has successfully secured Urban Greening projects, including funding that will benefit the area covered by this Action Plan, and could serve as a blueprint for future applications. The Desert Recreation District provides recreational services throughout the Coachella Valley and has had previous success at leveraging Urban Greening funds for new parks in the eastern Coachella Valley. The Desert Recreation District has many park projects in the planning process throughout Coachella Valley that are located within or near a severely disadvantaged community. Each of these parks is identified in Chapter 7.

Threats

Native Species

The Coachella Valley's native plants and trees, including various species of acacia, ironwood, paloverde and palm trees, do not naturally provide significant shade, nor do they remove enough carbon from the environment to present the most competitive grant proposal, however provide other environmental and cultural benefits. Summer daytime temperatures in the Coachella Valley regularly rise above 100°F, but the effects of the heat can be partially mitigated by the introduction of urban forests. In doing so, maintaining the natural environment of desert species and preserving the native state of the Coachella Valley is important to the health of the region as a whole, but the efficacy of using these plants and trees in climate adaptation efforts is less than ideal. There is an inherent disadvantage to using native desert species to provide shade, reduce urban heat island zones and sequester carbon, whereas non-native species may do so more efficiently. However, the disruption to the natural Coachella Valley habitat caused by introducing foreign species would be a considerable reason for hesitation. In such an arid environment and harsh conditions, creating urban forests presents a dilemma between using native desert plants and using more effective species that must leave the natural habitat of the Coachella Valley intact while still providing shade and a sufficient carbon sink to aid in climate adaptation efforts throughout the local communities. **Table 6-11** presents native trees to the eastern Coachella Valley and their ability to sequester carbon, remove air pollutants and intercept rainwater. The Ironwood tree, consistently ranks the highest in removing CO2 and air pollutants from the environment, however, the California Sycamore removes a greater amount of fine particulate matter (PM2.5).

Table 6-11. Environmental Benefits of Native Trees

Tree Species	CO2 Sequestered	O3 Removed	NO2 Removed	SO2 Removed	PM2.5 Removed	Rainfall Interception
	Pounds					*gallons*
Velvet Mesquite	56.80	2.8	0.4	0.0	0.4	2,307.60
Screwbean Mesquite	2,640.60	12.9	1.6	0.2	**0.9**	7,983.80
Ironwood	**31,477.20**	**45.8**	**6.5**	**0.7**	0.2	**23,430.80**
Blue Paloverde	1,014.30	11.3	1.4	0.2	0.7	6,262.80
Desert Willow	128.00	10.6	1.4	0.2	0.1	3,856.30
California Sycamore	2,725.50	22.2	2.7	0.3	1.0	10,155.80
Cottonwood	1,509.20	11.3	1.4	0.2	0.8	5,525.00
Velvet Ash	849.60	11.6	1.5	0.2	0.7	6,466.50
Willow	4,544.20	17.3	2.1	0.3	0.7	9,071.30

Notes: *The data are results of an iTree planting report that assumes the trunk diameter at breast height (4.5 feet above the ground) is 1 inch. The data also assumes the trees are in excellent health and receive full exposure to the sun. The iTree project length is set to 40 years and the assumed tree mortality rate is 10%. This data is presented for comparison purposes. Specific applications should perform unique iTree model runs.*

ACTIVE TRANSPORTATION GRANTS

Program Overview

Program Description

The Active Transportation Program (ATP) funds projects that increase the use of active transportation. The goals of the ATP include increasing the proportion of walking and biking trips, increasing safety for non-motorized users, reducing GHG emissions, enhancing public health, benefiting DACs and providing a broad spectrum of uses (CTC 2019). CV Link, which will serve as the backbone multimodal route for the entire Coachella Valley, was one of the largest ATP projects funded under this program.

Project Outcomes

A successful ATP project will do the following:

- Increase the proportion of biking and walking trips.
- Increase safety and mobility of non-motorized users.
- Reduce GHG emissions.
- Enhance public health.
- Benefit DACs.
- Provide a broad spectrum of projects to benefit many types of active transportation users.
- Articulate how the community-based participation process resulted in the identification and prioritization of the proposed project.
- Leverage non-ATP funds.

Program Requirements

Table 6-12 outlines the major requirements of the ATP grant. Each grant application is given points based on how well it meets the goals of the program.

Table 6-12. Active Transportation Program Requirements

Selection Criteria	Possible Points
QUESTION 1: *Disadvantaged Communities*	***Total: 10***
Explain how the project closes a gap, provides connections to, and/or addresses a deficiency in an active transportation network and how the improvements meet an important need of the disadvantaged community (DAC). The evaluator shall consider: • Does the project provide reasonable improvements to close missing gaps; increase needed routes or connections (such as access to and/or community safety for DAC residents to parks, greenways, open space, health care centers, transit stops and other community assets) or address the poor conditions of an existing route? • If developing a new route/connection, will the project result in a convenient and logical route that residents will want to use because it offers improved access to destinations the community commonly utilizes? • Will the project address the lack of or need for active transportation planning? And/or does the project address the community concerns about the lack of pedestrian or bicycle safety education in their community? • Will the project address an identified need that was identified by the local community and is it supported by backup documentation/attachments?	4
Is your project located within a DAC?	2
Severity of DAC. The evaluator shall consider: • Applicant's ability to demonstrate the project is located within a DAC • Median household income • CalEnviroScreen criteria • Free or reduced lunches • Other DAC criteria	4

Source: *CACT 2019.*

Table 6-12. (continued) Active Transportation Program Requirements

QUESTION 2: *Potential for increased walking and bicycling, especially among students, including the identification of walking and bicycling routes to and from schools, transit facilities, community centers, employment centers and other destinations; and including increasing and improving connectivity and mobility of non-motorized users.*	***Total: 53***
Statement of Project need. Describe the issue(s) that this project will address. How will the proposed project benefit the non-motorized users? What is the project's desired outcome and how will the project best deliver that outcome?	26
Describe how the proposed project will address the active transportation need: **1.** Proposed project addresses: • Close a gap? • Creation of new routes? • Removal of barrier to mobility? • Other improveme ts to existing routes? **2.** Must provide a map of each gap closure identifying the gap and connections, and/or of the new route location, and/or the barrier location and improvement. **3.** Referencing this map, describe the existing route(s) that currently connect the affected transportation related and community identified destinations and why the route(s) are not adequate. **4.** Referencing this map, describe how the project links or connects, or encourages use of existing routes to transportation-related and community identified destinations where an increase in active transportation modes can be realized, including but not limited to: schools, school facilities, transit facilities, community, social service or medical centers, employment centers, high density or affordable housing, regional, State or national trail system, recreational and visitor destinations or other community identified destinations. Specific destination must be identified. • For combined I/NI projects: discuss how the encouragement, education, and/or enforcement program will help address the needs.	27

Source: *CACT 2019.*

Table 6-12. (continued) Active Transportation Program Requirements

QUESTION 3: *Potential for reducing the number and/or rate or the risk of pedestrian and bicyclist fatalities and injuries, including the identification of safety hazards for pedestrians and bicyclists.*	***Total: 25a***
Describe the project location's history of pedestrian and bicycle collisions resulting in fatalities and injuries to non-motorized users, which this project will mitigate	12
Based on applicant's ability to make a compelling case that they have analyzed their past Crash Dara (or Safety Data for projects without documented crash data) and can demonstrate that the proposed safety improvements correspond to the types and locations of the past collisions	4
Safety Countermeasures: describe how the project improvements will remedy (one or more) potential safety hazards that contribute to pedestrian and/or bicyclist injuries or fatalities. Referencing the information you provided above, demonstrate how the proposed countermeasures directly address the underlying factors that are contributing to the occurrence of pedestrian and/or bicyclist collisions.	13
QUESTION 4: *Public Participation and Planning*	***Total: 10***
Describe the community based public participation process that has and will continue to define the proposed project. Include discussion of: What was the process to prepare for existing and future needs of users of this project? Who was engaged in the public participation and planning process? How will stakeholders continue to be engaged in the implementation of the project?	10
QUESTION 5: *Scope and Plan Consistency*	***Total: 2***
The application, scope and plans are consistent with one another including improvement location(s) and improvement element(s).	2

Notes: *This section is capped at 25, although the potential points could add to 29.*
Source: *CACT 2019.*

Local Implementation

Opportunities

Low Car Ownership and Active Commuting

ATP projects should be designed to provide safe access to non-motorized transportation to go about their daily lives. Despite low levels of car ownership, the eastern Coachella Valley has a low proportion of active commuters. During public outreach events for the Neighborhood Mobility Plan for the Communities of Thermal and Oasis, community residents indicated that they would bike and take transit more often if they had access to reliable transit and bicycle facilities. This mismatch of low car ownership and low active commuting show a need for active transportation infrastructure to increase social mobility by providing better and more reliable transportation to work, transit stops and other key destinations.

Threats

Extreme Heat

Active transportation inherently requires time outdoors, either passively (e.g., waiting at a transit stop) or actively (e.g., biking to work). The Coachella Valley is known for its extreme summer temperatures, which can reach up to 120°F. Extreme heat acts as a threat to active transportation users, presenting a risk of health problems associated with heat exhaustion and stroke. Additionally, extreme heat events and heat waves are projected to occur more frequently as a result of climate change.

7

Community Project Recommendations

This chapter highlights potential projects in each of the five communities that make up the Eastern Coachella Valley Climate Action Plan for Climate Resilience (Action Plan). The project recommendations are based largely on priorities heard through the community outreach process. They are also based on projects identified in previous planning efforts. Importantly, the projects highlighted are those that would be most competitive for grant funding due to their potential to maximize greenhouse gas (GHG) reductions and achieve other community benefits. Each project explored in this chapter is compared against the grant requirements presented in Chapter 6 (Technical Guidance) and evaluated in Appendix B (Grant Competitiveness Evaluation).

Coachella

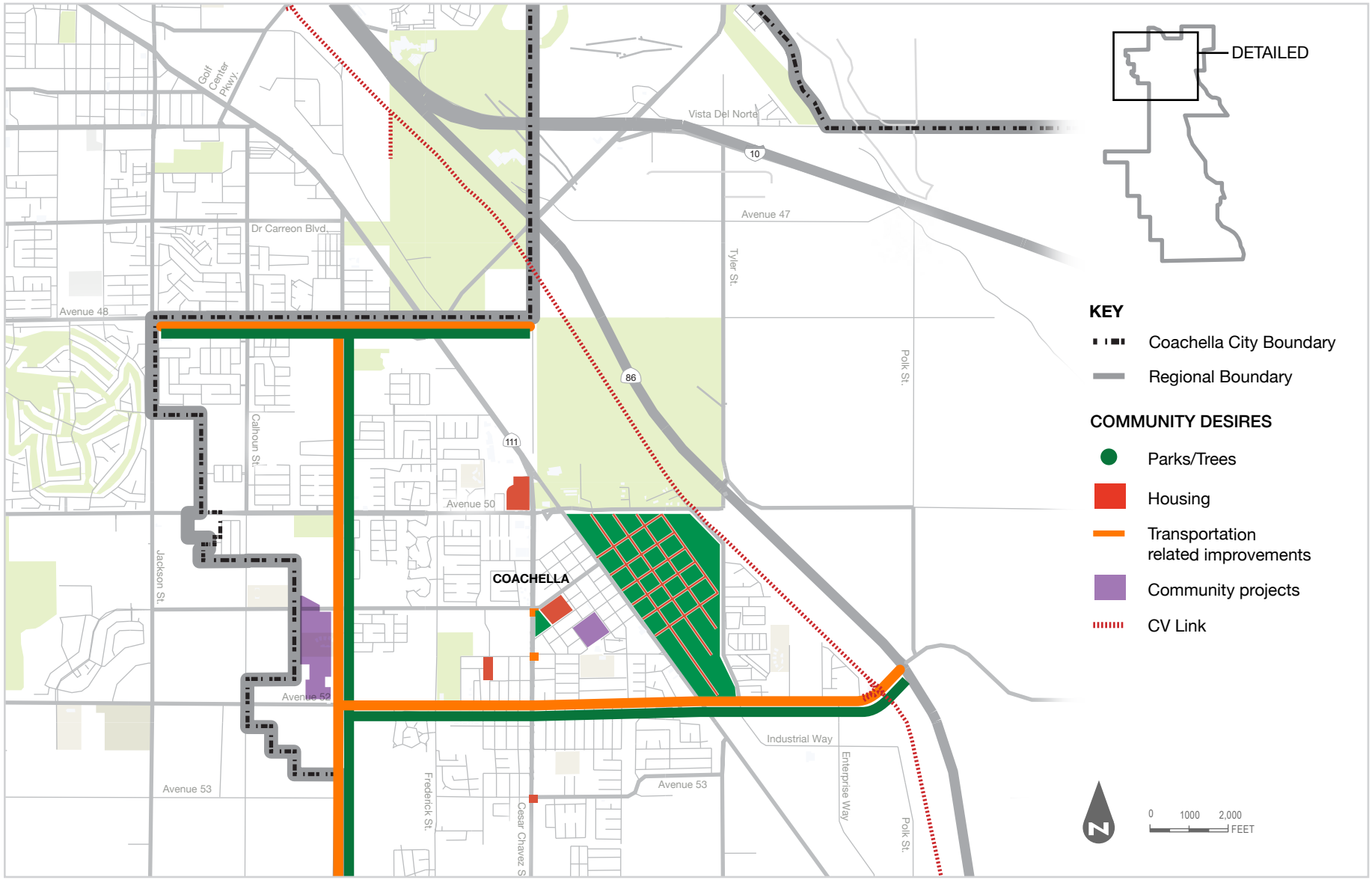
The City of Coachella (Coachella) is a small incorporated community with three census tracts that qualified as disadvantaged in the southeastern portion of the city. Coachella is generally more dense, more walkable and served by more transit than the rest of the eastern Coachella Valley. Many community members work within Coachella and 62% travel fewer than 10 miles to work (LEHD 2015). As shown in Table 7-1, only 1.3% of workers commute to work by walking, biking or taking transit, and 6.7% of residents do not have access to a car. Coachella also has severely low tree cover, which makes the community less resilient to extreme heat events and less likely to enjoy walking or biking outside. Unlike other communities in the eastern Coachella Valley, almost all (99.1%) of housing is habitable. Almost 40% of low-income renters spend more than half of their income on housing, while only 17% of homeowners face the same burden. In the community survey, Coachella residents indicated that affordable housing, water/sewer and transit projects are their top three priorities.

Table 7-1 Coachella Community

Community Indicator	Community Score	Relative Score[5]
Percentage of Active Commuters	1.3%	Very Low (lower than 89.2% of the state)
Percentage of Residents Without Access to a Car	6.7%	Low (less than 45.7% of the state)
Percentage Tree Canopy	2.0%	Very Low (lower than 95.2% of the state)
Supermarket Access[1]	51.5%	High (more than 51.4% of the state)
Park Access[2]	68.3%	Low (less than 64.4% of the state)
Housing Uninhabitability[3]	0.9%	High (higher than 55.6% of the state)
Low-Income Homeowner with Severe Housing Cost Burden[4]	16.4%	High (higher than 67.5% of the state)
Low-Income Renter with Severe Cost Burden[4]	32.7%	Very High (higher than 79.7% of the state)

Notes: *This data reflects all of Census Tracts 9404.00, 457.06, 457.07, which represents the tracts that qualify as disadvantaged.*
[1]*This is measured as the percentage of people in urban areas who reside less than 0.5 miles from a grocery store/supermarket, or less than 10 miles in a rural area.*
[2]*This is measured as the percentage of people who live within 0.5 miles of a park, beach or open space greater than 1 acre*
[3]*This is measured as the percentage of people who reside in households without basic kitchen facilities and plumbing.*
[4]*This is measured as the percentage of people who pay more than 50% of their income in housing costs.*
[5]*These scores are representative of which quartile this county falls into when compared to the rest of California (Very High - upper 25%, High - upper 50%, Low - lower 50%, Very Low - lowest 25%)*
Source: *PHASC 2018*

Figure 7-1 Coachella Community Projects



Potential projects are highlighted in Figure 7-1, Coachella Community Projects, and are described below. A preliminary evaluation of each project is included in Appendix B.

Affordable Housing and Sustainable Communities Program

Multiple housing opportunities were identified west of Highway 111. These sites were selected due to their proximity to transit and parks. Each location is within 0.25 miles of a transit stop; however, not every location has a co-located park. Projects without park access nearby, especially those along Cesar Chavez Street, would benefit from green space development to provide play and exercise areas, while also buffering homes from air pollution and noise.[1,2]

Each Affordable Housing and Sustainable Communities (AHSC) application should include complete street improvements to the nearest bus stop. Each bus stop identified as part of an AHSC application should also be improved consistent with the model transit stop outlined in Chapter 5 (Plan and Policy Gap Analysis).[3] AHSC communities should also include bike shares and electric car shares. AHSC projects should strive to achieve net-zero status, which entails producing as much energy on site as the project is anticipated to use in a year by using energy efficient technologies and on-site renewable generation, usually through rooftop solar energy systems. Residents who use less than their energy allowance would receive a bill credit, while residents who go over would pay a small utility bill. Such programs should be coupled with education on energy efficiency and tools such as load calculators, shower timers and surge protectors.

1 PROJECTS COA-AHSC 1-4
2 PROJECT COA-UG-3
3 PROJECTS COA-ATP 1-3

Transformative Climate Communities

Community residents identified workforce training as an important community development priority. The Coachella Valley Adult School could potentially be expanded to provide satellite college courses and workforce training.[4] The necessary GHG reductions required for a Transformative Climate Communities (TCC) grant could be achieved through urban greening and pedestrian and bicycle infrastructure from the adult school to the nearest transit station. Additional GHG reductions could be achieved through the use of solar panels or energy efficiency retrofits in the existing buildings on campus.

Other community benefits, including community kitchens and community centers could be provided on the southwest end of Coachella as identified during community outreach.[5] These projects could include large community solar projects that provide energy to homes for nearby residents, reduce GHG emissions and provide electrician job training focusing on solar installation and energy efficiency retrofits. The sites identified by the public are currently zoned as residential. To avoid displacement, such a project would need to include a housing component which could be linked to the community solar project. These projects would be connected to regional active transportation infrastructure on Van Buren Street and Avenue 52, which would connect the sites to transit and CV Link.

4 PROJECT COA-TCC-1
5 PROJECT COA-TCC-2

Sustainable Agriculture Land Conservation

No Sustainable Agriculture Land Conservation (SALC) projects were identified inside Coachella limits.

Urban Greening

Community residents identified the need for a large community park between Highway 111 and the 86 Expressway.[6] This would provide a significant greenspace adjacent to downtown and accessible to many Coachella residents. This site is also zoned residential, and should be co-developed as an AHSC site where it is not designated as prime farm land.[7] The site should be developed with a substantial plant and tree buffer along the edges to shield the park from air pollutants from the highways and decrease noise pollution while also providing habitat for wildlife. This park could also include a community garden to provide residents access to affordable healthy food and natural science education for local children. This development would also connect to CV link as a trailhead and would be a key opportunity site for a bike share or similar transportation improvements. Urban greening opportunities were also identified as new proposed bike and pedestrian ways along Van Buren Street and Avenue 52, as well as in conjunction with the improvements identified for the proposed AHSC sites.[8] Urban greening will make these bike and pedestrian improvements more enjoyable to use by cooling the air and calming traffic. In areas that flood frequently, the greening projects should include rain gardens or bioswales to enhance stormwater systems to allow the water to recharge Coachella's groundwater basin.

6 PROJECT COA-UG-1
7 PROJECT COA-AHSC-4
8 PROJECT COA-UG-2

Active Transportation Program

Coachella has a history of successful safe routes to school projects which should be included in future grant applications. One key corridor which could be developed as part of this effort is along Van Buren Street connecting the east side of Coachella to the Coachella Valley High School. The second and intersecting key corridor is along Avenue 52, connecting the south end of downtown to the proposed park and CV link. Thirdly, Avenue 48 has been identified as a connector to CV Link and should be pursued as a regional priority.[9]

The community also listed transit projects as their top transportation priority. To respond to this need, key transit stops improved in tandem with a related project should be connected by bike and pedestrian improvements to encourage increased use.

9 PROJECTS COA-ATP 1-3

Mecca

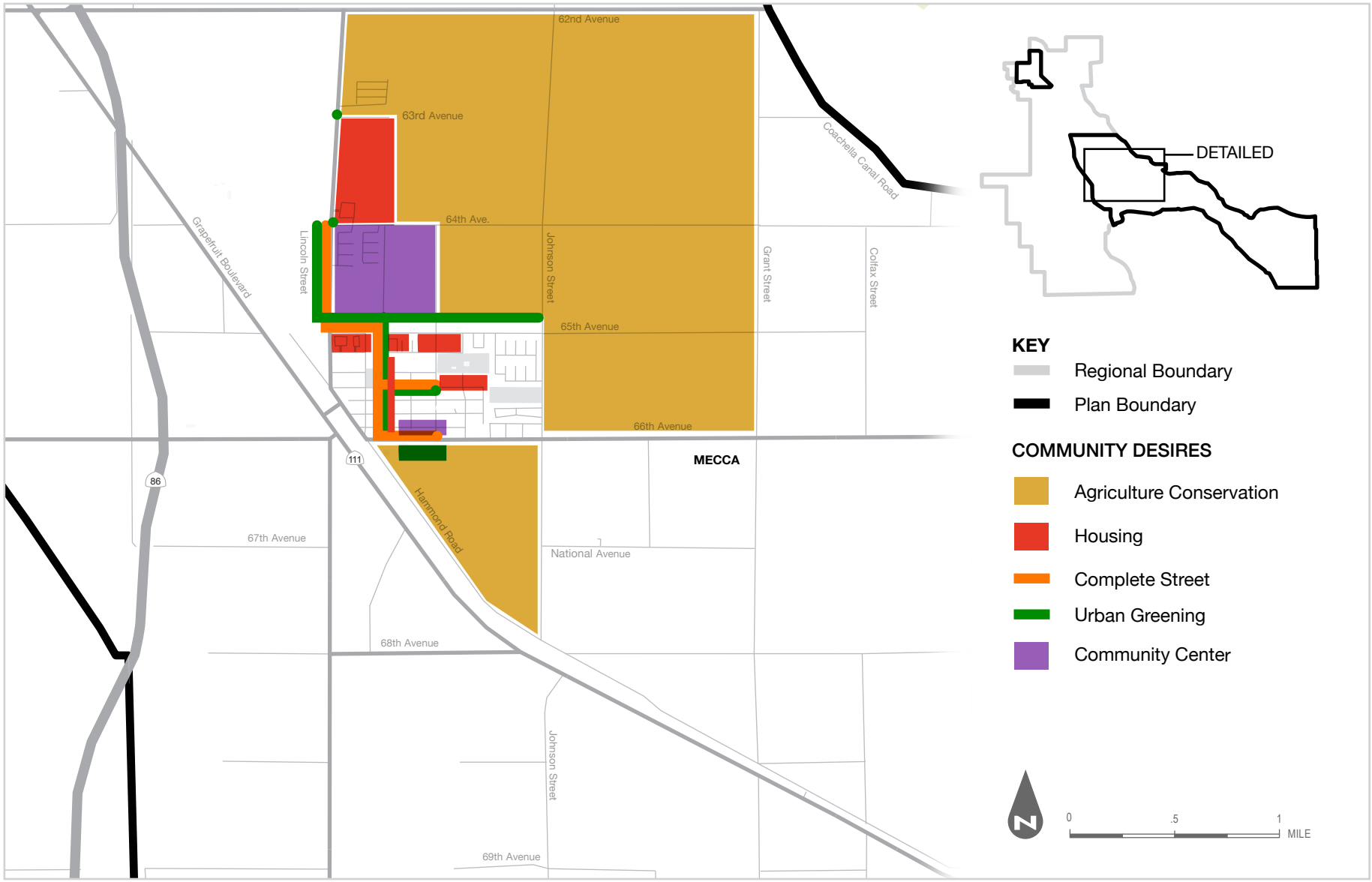
The community of Mecca is a small unincorporated community southeast of Coachella. Mecca has a compact downtown which includes a library and a community center. Mecca is connected to the region by Highway 111 and the 91 Line bus route. Many community members work within the community and 33% travel fewer than 10 miles to work (LEHD 2015). As shown in Table 7-2, only 3.2% of workers commute to work by walking, biking or taking transit, and 6.3% of residents do not have access to a car. Mecca also has severely low tree cover, which makes the community less resilient to extreme heat events and less likely to enjoy walking or biking outside. Mecca also has a very high rate of uninhabitable housing, defined as a lack of access to basic kitchen or plumbing, compared to the state, and 32.7% of low-income renters spend more than half of their income on housing. In the community survey, Mecca residents indicated that affordable housing, community parks and sidewalks are their top three priorities.

Table 7-2 Mecca Community Indicator

Community Indicator	Community Score	Relative Score[5]
Percentage of Active Commuters	3.2%	Low (less than 70.9% of the state)
Percentage of Residents Without Access to a Car	6.3%	Low (less than 56.7% of the state)
Percentage Tree Canopy	1.6%	Very Low (less than 97.2% of the state)
Supermarket Access[1]	25.3%	Low (less than 67.4% of the state)
Park Access[2]	54.3%	Low (less than 75.0% of the state)[6]
Housing Uninhabitability[3]	3.5%	Very High (more than 90.1% of the state)
Low-Income Homeowner with Severe Housing Cost Burden[4]	21.4%	High (higher than 72.0% of the state)
Low-Income Renter with Severe Cost Burden[4]	32.7%	Very High (higher than 88.2% of state)

Notes: *This data reflects all of Census Tract 456.04, which also includes the community of North Shore*
[1]*This is measured as the percentage of people in urban areas who reside less than 0.5 miles from a grocery store/supermarket, or less than 10 miles in a rural area.*
[2]*This is measured as the percentage of people who live within 0.5 miles of a park, beach or open space greater than 1 acre*
[3]*This is measured as the percentage of people who reside in households without basic kitchen facilities and plumbing.*
[4]*This is measured as the percentage of people who pay more than 50% of their income in housing costs.*
[5]*These scores are representative of which quartile this county falls into when compared to the rest of California (Very High - upper 25%, High - upper 50%, Low - lower 50%, Very Low - lowest 25%)*
6This data codes the Salton Sea as open space
Source: *PHASC 2018*

Figure 7-2 Mecca Community Projects



Potential projects are highlighted in Figure 7-2, Mecca Community Projects, and are described below. A preliminary evaluation of each project is included in Appendix B.

Affordable Housing and Sustainable Communities Program

The community identified an opportunity area for new housing development east of Lincoln Street and north of Avenue 64.[10] Parcels in this area are zoned for single-family homes, mobile homes and residential incentive. While single family and mobile home construction may not meet the density requirements of the AHSC grant, residential incentive zoning allows for denser affordable housing developments. Opportunity sites south of Avenue 64 are currently zoned for high-density residential and are closer to the walkable downtown Mecca and local services. Additionally, while not specifically identified during community outreach activities, other infill housing sites in downtown Mecca represent potential project locations.[11] These sites have a high walk score and are within walking distance to grocery stores, public transit, public schools and childcare. These sites would likely be the most competitive for grant funding, as the locations are already walkable, and any urban greening and active transportation improvements would benefit the most new and existing residents.

Each transit stop associated with an AHSC development should be upgraded consistent with the model transit stop outlined in Chapter 5. Additional flexible transit, electric car shares and bike shares should also be included to assist transit-dependent residents commute to work, doctors appointments and job interviews when their destinations are not accessible by transit.

All potential housing projects should be paired with greening and active transportation improvements, each of which are discussed below, but could be pursued in a holistic grant application.

10 PROJECT MEC-AHSC-1
11 PROJECT MEC-AHSC-2

Transformative Climate Communities

Community projects were suggested along 2nd Street and Avenue 66. These locations are in close proximity to other community assets, including the library, Boys and Girls Club and local grocery stores. Community members highlighted grocery stores as their top priority in the survey, and therefore each TCC project that is beyond 1 mile from a grocery store in the core of Mecca should evaluate the incorporation of either a grocery store, community kitchen or community garden within the project as appropriate to increase access to food in the community. Community members also indicated an interest in a community center, workforce training and community kitchen.

A potential TCC project could include a community center that also provides access to workforce training in sustainability fields such as solar installation, arborist training and a community kitchen and/or garden.[12] This facility could act as a cool zone during extreme heat days, allowing people to congregate on extreme heat days, increasing climate resiliency and saving energy from individual homes. Connecting this facility to other important places such as the library, elementary school and residences with safe and comfortable walking and biking infrastructure would bolster such a project.

Community solar could be developed in North Mecca near the proposed AHSC site to serve adjacent housing in downtown Mecca.[13] The west end of the project site could be developed with a tree or vegetation buffer along the site to buffer active commuters and people waiting at the bus stops along Lincoln Street from any remaining farming uses.

12 PROJECT MEC-TCC-1
13 PROJECT MEC-TCC-2

Sustainable Agriculture Land Conservation

Community residents did not identify any specific parcels for agricultural conservation but did highlight community gardens and farmers markets in the community survey and community meetings. Existing agricultural land outside the community was identified as housing opportunities; however, these areas may be better preserved for agriculture and improved to provide community access to healthy and affordable food.[14] Since much of the western end of the community is within the 500-year flood plain, it would be beneficial to prioritize those properties for permanent preservation using SALC funding. The use of SALC grants should also prohibit the use of pesticides near residents to improve local health, air quality and groundwater.

14 PROJECT MEC-SALC

Urban Greening

The Desert Recreation District (Desert Rec) has proposed a sports park in Mecca on Avenue 66.[15] The County currently owns the land and a conceptual design has been completed; however, no funding sources have been identified. As shown in Chapter 2 (Community Engagement), community parks were the community's top priority within urban greening. This park would also expand access to parks for residents on the south end of Mecca. Community residents also expressed support for a large civic or sports park during community meetings.

Urban greening should be pursued in tandem with active transportation program projects discussed below. The viability of these projects to also receive urban greening funds are evaluated in Appendix B.[16] These complete street projects should focus on providing native vegetation to provide habitat for local species, but also increase the sense of place in the community. By providing lush desert landscaping, the eastern Coachella Valley can celebrate its natural and cultural heritage. This landscaping could improve the standard of living by creating a welcoming environment which is attractive to the residents and encourages the use of public space.

Additionally, pocket parks within existing housing were identified in community meetings by residents that are walking distance from other major community assets and transit stops.[17] These pocket parks could increase the usability of transit stops, by providing shade and a beautiful natural area. Where appropriate, these parks should include bike racks, community gardens and rain gardens as the sites allow.

15 PROJECT MEC-UG-1
16 PROJECT MEC-UG-2
17 PROJECT MEC-UG-3

Active Transportation Program

An active transportation corridor on Lincoln Street was proposed during public outreach. This would connect transit stops, major employment sites, local grocery stores and downtown Mecca. Based on community outreach, this connection should focus primarily on connecting safe sidewalks to each other and to transit. Urban greening improvements should be included to enhance the comfort of walking around the community and waiting at bus stops by buffering the sidewalks from air pollution and traffic and providing shade and traffic calming.

Active transportation opportunities exist on Avenue 64, connecting projects to the transit stop, and along Lincoln Street, Date Palm Road and Dale Kiler Road into downtown Mecca.[18] Improvements to Dale Kiler Road were identified in the 2008 Moving Mecca Forward Plan and are illustrated in Figure 7-3, Improvements to Dale Kiler Road. Due to the proximity of Avenue 64 to housing opportunity sites and downtown Mecca, it would be an ideal corridor for a pilot bike share, as suggested during public outreach.

Figure 7-3 Improvements to Dale Kiler Road

Above: View of existing Dale Kiler Road looking south near Our Lady of Guadalupe Church

Above: View of proposed Dale Kiler Road illustrating street improvements, infill housing development, and a future church expansion

Source: *Opticos Design Inc. 2008*

18 PROJECT MEC-ATP-1

North Shore

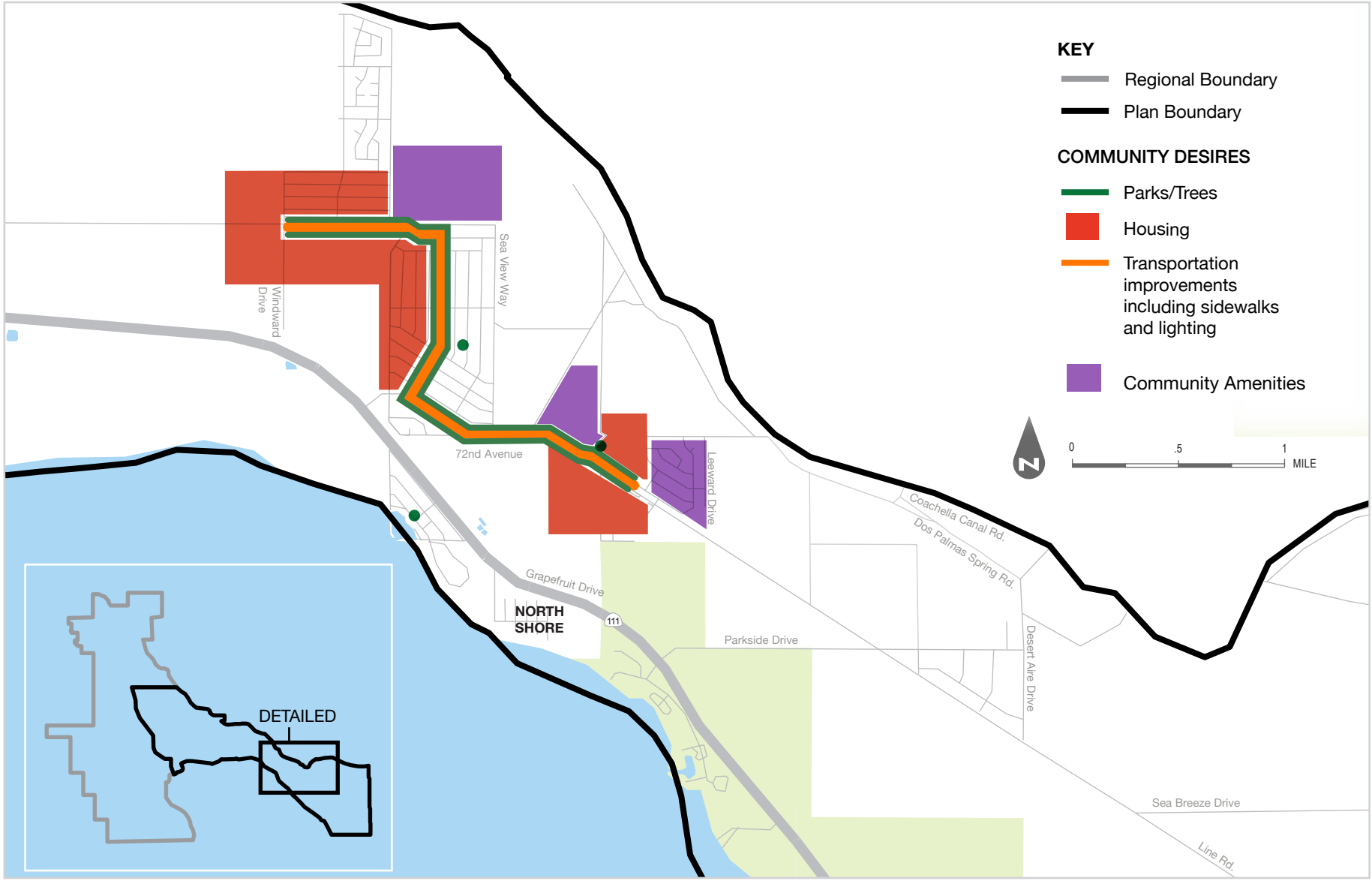
The community of North Shore is a small unincorporated community southeast of Coachella, situated on the northeastern shore of the Salton Sea. North Shore is highly residential and lacks a designated downtown area. North Shore is connected to the region by Highway 111 and the 95 Line bus route. Many community members work within the community and 28.5% travel fewer than 10 miles to work (LEHD 2015). As shown in Table 7-3, only 3.2% of workers commute to work by walking, biking or taking transit, and 6.3% of residents do not have access to a car. North Shore also has severely low tree cover, which makes the community less resilient to extreme heat events and less likely to enjoy walking or biking outside. North Shore also has a very high rate of uninhabitable housing, defined as a lack of access to basic kitchen or plumbing, compared to the state, and 32.7% of low-income renters spend more than half of their income on housing. In the community survey, North Shore residents indicated that grocery stores, transit projects and air monitoring systems are their top three priorities.

Table 7-3 North Shore Community

Community Indicator	Community Score	Relative Score[5]
Percentage of Active Commuters	3.2%	Low (less than 70.9% of the state)
Percentage of Residents Without Access to a Car	6.3%	Low (less than 56.7% of the state)
Percentage Tree Canopy	1.6%	Very Low (less than 97.2% of the state)
Supermarket Access[1]	25.3%	Low (less than 67.4% of the state)
Park Access[2]	54.3%	Low (less than 75.0% of the state)[6]
Housing Uninhabitability[3]	3.5%	Very High (more than 90.1% of the state)
Low-Income Homeowner with Severe Housing Cost Burden[4]	21.4%	High (higher than 72.0% of the state)
Low-Income Renter with Severe Cost Burden[4]	32.7%	Very High (higher than 88.2% of state)

Notes: *This data reflects all of Census Tract 456.04, which also includes the community of North Shore*
[1]*This is measured as the percentage of people in urban areas who reside less than 0.5 miles from a grocery store/supermarket, or less than 10 miles in a rural area.*
[2]*This is measured as the percentage of people who live within 0.5 miles of a park, beach or open space greater than 1 acre*
[3]*This is measured as the percentage of people who reside in households without basic kitchen facilities and plumbing.*
[4]*This is measured as the percentage of people who pay more than 50% of their income in housing costs.*
[5]*These scores are representative of which quartile this county falls into when compared to the rest of California (Very High - upper 25%, High - upper 50%, Low - lower 50%, Very Low - lowest 25%)*
6This data codes the Salton Sea as open space
Source: *PHASC 2018*

Figure 7-4 North Shore Community Projects



Potential projects are highlighted in Figure 7-4, North Shore Community Projects, and are described below. A preliminary evaluation of each project is included in Appendix B.

Affordable Housing and Sustainable Communities Program

North Shore is served by the 95 Line bus route and has five stops throughout the community; however, due to low population, transit service is not frequent enough to qualify for AHSC grant requirements. Potential housing sites could become eligible by either increasing transit frequency or extending flexible transit service to Mecca.[19] AHSC programs should also include electric car shares and/or vanpools to address the lack of public transit. More sites may be eligible for AHSC funding if North Shore, or specific sites within North Shore were reclassified as rural for the purposes of this grant.

19 PROJECT NOR-AHSC

Transformative Climate Communities

Community residents of North Shore highlighted a need for access to healthy food and identified sites for new amenities such as a grocery store or community kitchen. North Shore is the most geographically isolated community in the eastern Coachella Valley, and would benefit from increase local services to decrease VMTs from residents traveling to nearby communities. In conjunction with active transportation projects which would create a more walkable and bikeable community, new amenities would help promote a sense of independence and community. A need for affordable healthy food was also expressed as the most important issue during community outreach, which would also help provide for a growing population in North Shore.

TCC Implementation funds could be used for a community kitchen, grocery store or other food collective to provide access to access healthy food to a greater share of North Shore community members.[20] Such a food collective should include local food vendors and encourage entrepreneurship. Professional development could include financial and technical assistance with County permits. Additionally, community residents face systemic health issues from the Salton Sea and would benefit from a local community clinic to serve the community without forcing communities to travel to the urban areas of the eastern Coachella Valley. This clinic could be included as a component in a larger community center, or as a standalone project.[21,22]

20 PROJECT NOR-TCC-1
21 PROJECT NOR-TCC-2
22 THESE IMPROVEMENTS CAN BE EXTENDED TO MULTIPLE MOBILE HOME PARKS ACROSS THE EASTERN COACHELLA VALLEY. SEE APPENDIX C (SMALL WATER SYSTEM BOUNDARIES).

Mobile home improvements were also highlighted as an important priority in North Shore. TCC implementation funds could potentially be used for mobile home retrofits including paving, stormwater infrastructure improvements, weatherization, energy efficient retrofits and urban greening.[23] Such improvements could both make local Polanco parks and individual residences more resilient to climate change and reduce GHG emissions through utility improvements. Urban greening around the parks should consist of trees and other vegetation that blocks the dust, particulates and noise from the nearby roads. Native landscaping could also provide habitat for local species and create an inviting and lush environment that improve the quality of life. Additionally, vegetation internal to the park should be provided to shade homes and reduce energy demand. Where residents are interested, community gardens could also be included as one of the improvements to address the issues of food insecurity.

Additionally, community members expressed a desire for air quality monitoring systems due to air pollution from the Salton Sea. An air monitoring station could be located at the North Shore Community Park, Polanco parks or at another grant project identified in this Action Plan, in coordination with the South Coast Air Quality Management District. A monitoring station would provide residents with localized air quality data to help them make decisions on when children with pre-existing health conditions should remain indoors. This data could also supplement the environmental data presented in CalEnviroScreen and help bolster future grant applications. This would need to be coupled with another grant application, as monitoring in itself does not reduce GHG emissions and therefore is not eligible for TCC funds as a stand-alone item. The air monitoring component could best be funded through other sources, most fitting would be AB 617.

Sustainable Agriculture Land Conservation

No SALC projects were identified for this community. The population of North Shore is too low to be eligible for SALC programs.

Urban Greening

Urban greening was also identified as part of active transportation infrastructure along major corridors in North Shore. Similar to other areas of the eastern Coachella Valley, urban greening should be used to reduce the air temperature and make walking and biking more comfortable.[24] Urban greening opportunities should also increase the use of native plants in accordance with the Coachella Valley Water District Lush and Efficient Landscape Guide. This landscaping can help improve the sense of place in the community and improve the quality of life for residents by beautify communities. These corridors are discussed in detail under the Active Transportation Program below. Additionally, urban greening should be provided around transit stops to shade people waiting for the bus.

Pocket parks and community gardens were identified near existing public infrastructure and transit stops. These pocket parks can make transit stops more pleasant to wait at and also increase transit access to new opportunities for local food. Community garden opportunity locations were also identified near the North Shore Yacht Club and the North Shore Community Park.

23 PROJECT NOR-TCC-3

24 PROJECT NOR-UG-1

Active Transportation Program

Transportation projects were identified as a top priority for residents of North Shore, including improvements to the network of sidewalks and bike lanes. A new elementary school is proposed to be developed in North Shore and community members expressed a need for sidewalks and lighting along major streets, including near the new school. Currently there is a lack of pedestrian and bicycle infrastructure in North Shore, creating unsafe conditions along major roadways. Active transportation projects such as the development of sidewalks, bike lanes and street lighting coupled with the development of the new elementary school would benefit the community by creating safer conditions for future students and residents while meeting community desires.

Additionally, there are multiple Sunline bus stops in North Shore and community members identified a need for increased safety infrastructure along the bus route for pedestrians and bicyclists, including along Avenue 70, which is the only connecting route between the residential uses to the north and south of this roadway. Avenue 70 also connects the community to the North Shore Community Park. Transportation improvements for pedestrians and bicyclists would help create safer connectivity to amenities such as these in the community.[25] These improvements could include, additional sidewalks and solar power lighting, but should ultimately be informed by the community recommendations provided in the Mecca and North Shore Mobility Plan which is currently being drafted.

Residents also identified an issue with a key corridor connecting North Shore to Mecca located on Ave 70. North Shore is only accessible through two community entrances. When access is limited to one, traffic collisions and commutes increase. A bridge on 70th street causes a major choke point and should be widened to better accommodate increased volume of people walking, biking and using transit to reach the new elementary school.[26]

25 PROJECT NOR-ATP
26 PROJECT NOR-ATP-2

Oasis

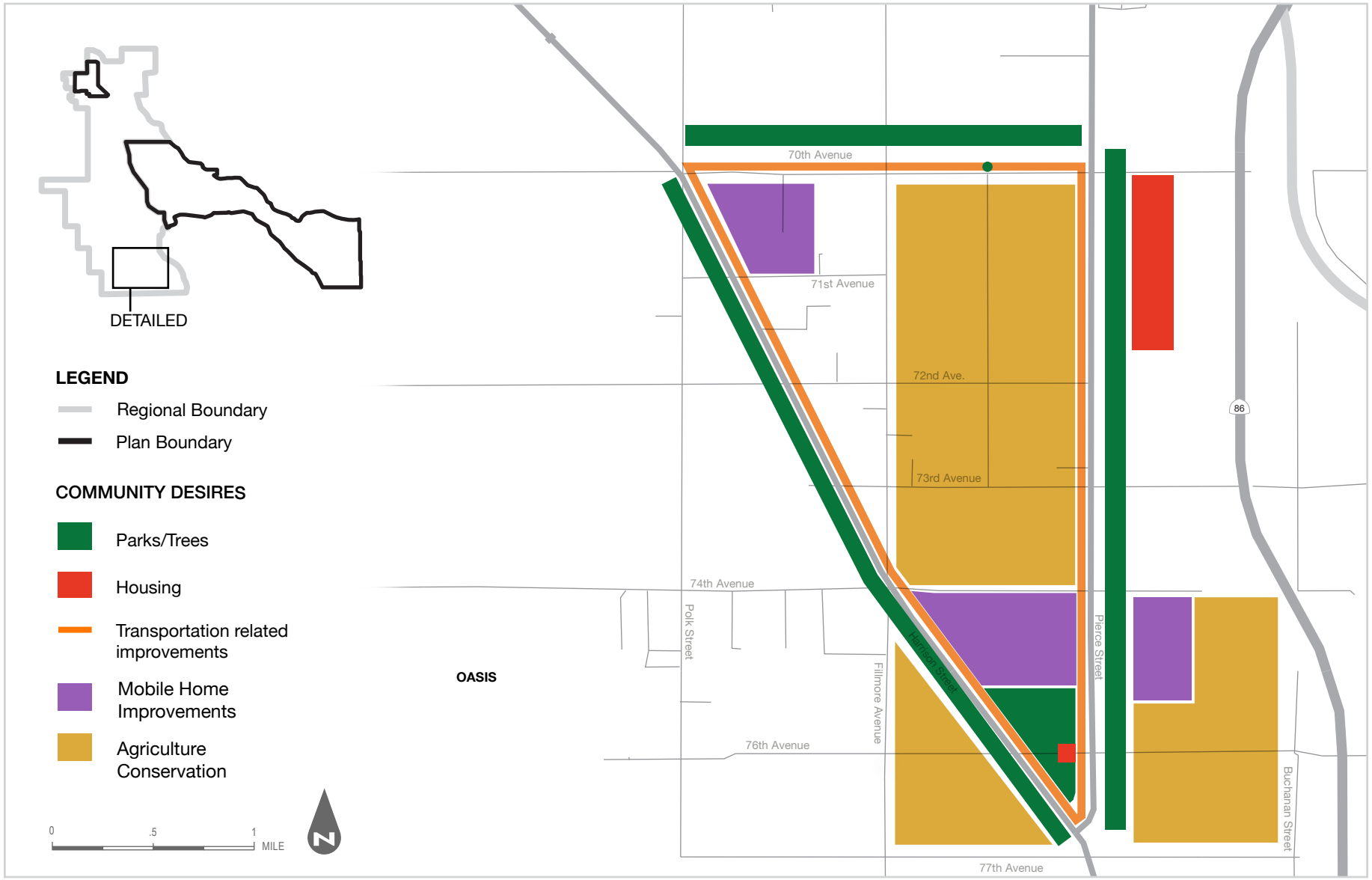
The community of Oasis is a small unincorporated community south of Coachella. Oasis has a compact downtown which includes an elementary school and grocery store. Oasis is connected to the region by Highway 86 to Highway 111 and the 91 Line bus route. Many community members work within the community and 27.1% travel fewer than 10 miles to work (LEHD 2015). As shown in Table 7-4, only 1.6% of workers commute to work by walking, biking or taking transit, and 5.4% of residents do not have access to a car. Oasis also has severely low tree cover, which makes the community less resilient to extreme heat events and residents less likely to enjoy walking or biking outside. Oasis also has a very high rate of uninhabitable housing, defined as a lack of access to basic kitchen or plumbing, compared to the state, and 21.1% of low-income homeowners spend more than half of their income on housing. In the community survey, Oasis residents indicated that transit projects, water and sewer infrastructure and affordable housing are their top three priorities.

Table 7-4 Oasis Community

Community Indicator	Community Score	Relative Score[5]
Percentage of Active Commuters	1.6%	Very Low (less than 86.4% of the state)
Percentage of Residents Without Access to a Car	5.4%	High (more than 50.5% of the state)
Percentage Tree Canopy	2.5%	Very Low (less than 91.6% of the state)
Supermarket Access[1]	0.0%	Very Low (less than 97.6% of the state)
Park Access[2]	1.9%	Very Low (less than 94.6% of the state)
Housing Uninhabitability[3]	10.1%	Very High (more than 99.2% of the state)
Low-Income Homeowner with Severe Housing Cost Burden[4]	21.1%	Very High (more than 87.7% of the state)
Low-Income Renter with Severe Cost Burden[4]	22.8%	Low (less than 61.7% of the state)

Notes: *This data reflects all of Census Tract 456.04, which also includes the community of North Shore*
[1]*This is measured as the percentage of people in urban areas who reside less than 0.5 miles from a grocery store/supermarket, or less than 10 miles in a rural area.*
[2]*This is measured as the percentage of people who live within 0.5 miles of a park, beach or open space greater than 1 acre*
[3]*This is measured as the percentage of people who reside in households without basic kitchen facilities and plumbing.*
[4]*This is measured as the percentage of people who pay more than 50% of their income in housing costs.*
[5]*These scores are representative of which quartile this county falls into when compared to the rest of California (Very High - upper 25%, High - upper 50%, Low - lower 50%, Very Low - lowest 25%)*
Source: *PHASC 2018*

Figure 7-5 Oasis Community Projects



Potential projects are highlighted in Figure 7-5, Oasis Community Projects, and are described below. A preliminary evaluation of each project is included in Appendix B.

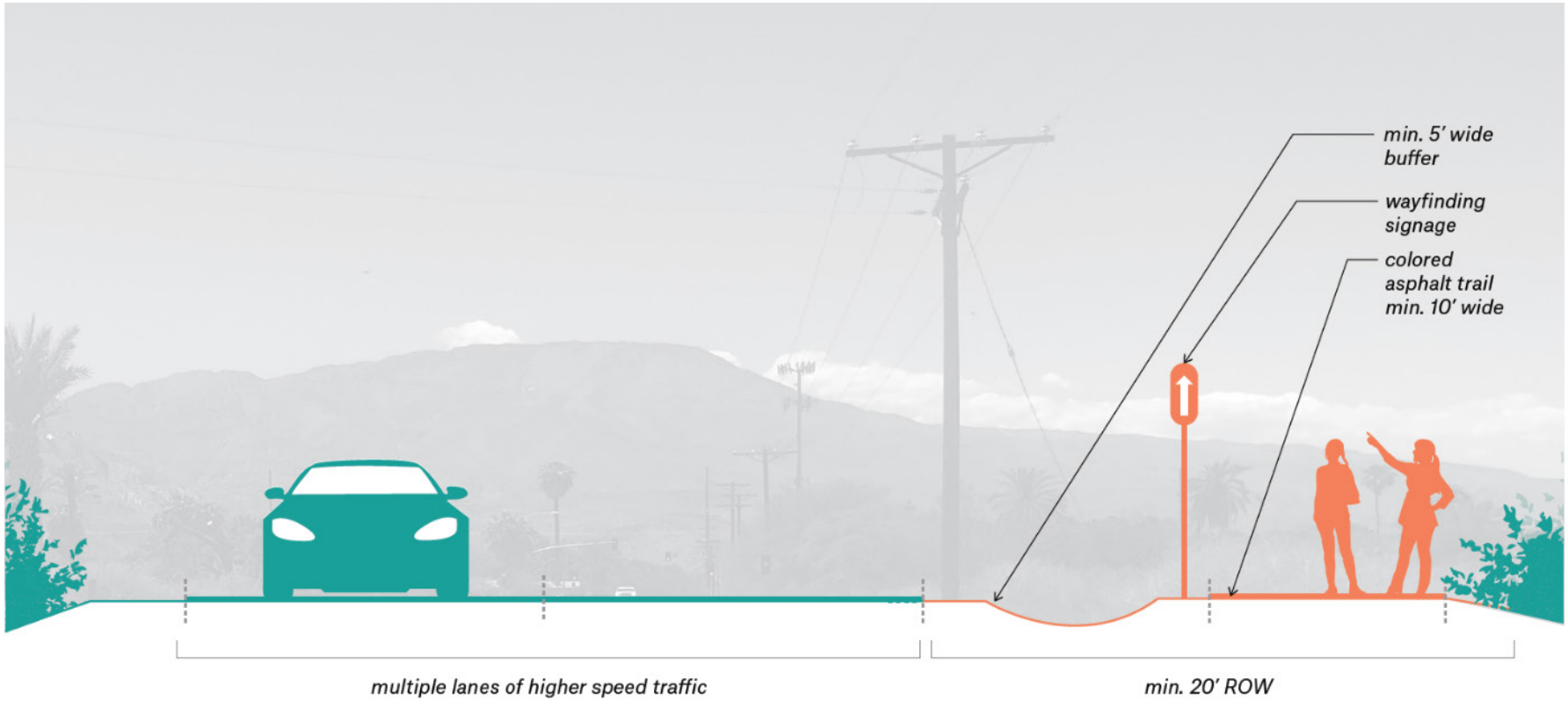
Affordable Housing and Sustainable Communities Program

Oasis does not have transit stops south of Avenue 70. As a result, community members identified transit projects as one of the largest priorities; however, very few sites in Oasis are competitive for AHSC grants as sites must be within 0.25 miles of a transit stop with two departures during peak hours. The AHSC grant requirements do outline a path to funding for such sites, if they are served by flexible transit service. As explored in Chapter 4 (Disruptive and Emerging Trends), Sunline Transit Agency is currently developing a ride-share service that could meet the requirements of flexible transit service. CalVans could also serve as flexible transit service for agricultural workers and community college students. The exact service routes have not yet been identified and may change the precise locations suggested for housing below. For this reason, housing site suggestions in Oasis are more general than those presented for other communities. Additional housing sites may be eligible for AHSC funding, if they could be designated as rural, however, the most pronounced barrier to increased affordable housing through AHSC, is the limited sites that are not designated as prime farm land.

Two major locations in Oasis were identified as areas of opportunity. The first area of opportunity was identified along Harrison, Pierce and Avenue 76, which would connect and take advantage of the existing elementary school, the local clinic, housing and markets.[27] This location is designated for mixed use would be appropriate for housing. As identified in the Neighborhood Mobility Plan for the Communities of Thermal and Oasis, this area is a local hotspot for collisions and was identified as a priority site for mobility needs. All streets surrounding this site were identified as community priority intersections, and two locations surrounding this site were identified as community priorities for a new SunLine bus stop or flexible transit stop. Additionally, a class one multimodal path was suggested for Harrison Street as shown in Figure 7-6, Conceptual Separated Multimodal Paths, which would connect the site to the elementary school (County of Riverside Department of Transportation 2018). Additionally areas around this site are similarly suited for housing; however, they are designated as prime farm land, and therefore, were not suggested in this Action Plan.

27 PROJECT OAS-AHSC-1

Figure 7-6 Conceptual Separated Multimodal Paths



Notes: *County of Riverside County Department of Transportation 2018*

A second site along Avenue 70 and Pierce Street was identified as an opportunity for increased transit access, bike lanes, urban greening and increased housing.[28] This area is zoned Controlled Development and Light Agriculture, which does not permit housing dense enough to comply with the AHSC grant. Furthermore, these locations and the majority of Oasis are under the jurisdiction of the Torres-Martinez Reservation and any opportunities would need to be pursued by the Torres Martinez Desert Cahuilla Indians. This site is in close proximity to major Oasis job centers and should be evaluated by the tribe. Similar to the Avenue 74 opportunity site, this intersection is also a hot spot for reported collisions and was identified as a priority corridor and part of the proposed Class 1 multimodal path. This site could also be developed in coordination with such improvements identified by the County of Riverside Department of Transportation 2018.

28 PROJECT OAS-AHSC-2

Transformative Climate Communities

The three largest community-based projects heard through the outreach process for Oasis were mobile home improvements, grocery stores and air quality monitoring systems. Potential TCC projects in Oasis could include mobile home park retrofits including paving, stormwater management, urban greening and air quality monitoring.[29,30] Such improvements could both make local Polanco parks more resilient to climate change and reduce GHG emissions through weatherization and energy efficiency retrofits. Urban greening around the parks should consist of trees and other vegetation that block the dust, particulates and noise from the nearby roads. Additionally, vegetation internal to the park could shade homes and reduce energy demand. In Polanco parks where the residents are interested, community gardens could also be included as one of the improvements to address the issues of food insecurity. Lastly, as part of the improvements, parks could install their own air quality monitoring station in coordination with the South Coast Air Quality Management District and could be funded by AB 617. A monitoring station would provide residents with localized air quality data to help them make decisions on when children with pre-existing health conditions should remain indoors. This data could also supplement the environmental data presented in CalEnviroScreen and help bolster future grant applications.

A community solar farm was identified adjacent to the Oasis Elementary School, to develop both local food and local energy to serve the community members in the southern portion of Oasis. This solar farm could be developed to incorporate both a community solar project on a portion of the site, and community gardens on the school side to promote natural science education opportunities. The energy generated could be used by local business or homes in tandem with an energy efficiency retrofit program, and the farm could host community events and workshops.

29 PROJECT OAS-TCC-1
30 THESE IMPROVEMENTS CAN BE EXTENDED TO MULTIPLE MOBILE HOME PARKS ACROSS THE EASTERN COACHELLA VALLEY. SEE APPENDIX C.

Sustainable Agriculture Land Conservation

Productive agricultural land near residents should be evaluated for SALC grants. Most of Oasis is within the 500-year flood plain, and any development is at risk of flooding and could exacerbate the existing hazard by creating more paved surface and increasing runoff into adjacent properties. SALC applications in Oasis should focus primarily on improving air quality, preventing flooding and providing local food. Air quality concerns could be addressed through planting buffer vegetation around the farms so that dust does not readily escape the boundaries of the farms, adjusting tilling practices and reducing or eliminating the use of pesticides. Flooding could be addressed by either prioritizing sites for protection that have an existing known flood hazard or installing retention basins and bioswales at key areas around the farms. Lastly, such projects could provide local food by hosting a reduced-price farm stand or farmers market, providing fresh food to local schools or workers and providing community garden space and education on site. The specifics of such a program would need to be decided on a case-by-case basis with the farm owner.[31] Alternatively, the tribe or the County could pursue a planning grant to create a program for model SALC projects and specifically identify sites for preservation.

31 PROJECT OAS-SALC

Urban Greening

Desert Recreation District has identified a park project at Avenue 76 and Pierce Street.[32] This park is close to community amenities including the medical center and residences. The land has already been acquired and partial funding sources have been identified. The park is currently shovel ready; however, it has a four-million-dollar funding gap. Community parks were the most popular urban greening strategy in the outreach survey, and this park could help meet that need. Additionally, this park could be improved with the addition of bike and pedestrian infrastructure on Pierce Street.

Urban greening was also identified as part of active transportation infrastructure. Similar to other areas of the eastern Coachella Valley, urban greening should be used to reduce the air temperature and make walking and biking more comfortable. Similar to other urban greening projects discussed in this Action Plan, these improvements should utilize native plants and create a lush and local landscape. These corridors are discussed in detail under the Active Transportation Program below.[33]

Additionally, a pocket park was identified near the existing commercial areas and transit stop on Avenue 70. This pocket park and transit stop could include transit improvements such as bike parking, water fountains and shaded benches. This pocket park could also include a community garden. This model could also be replicated at other transit stops or gathering areas with limited urban greening.[34]

Active Transportation Program

As identified during the outreach process for both this Action Plan and the Neighborhood Mobility Plan for the Communities of Thermal and Oasis, community members identified active transportation improvements connecting residents and services in the southern portions of Oasis to the transit and job hubs in northern Oasis.[35] Improvements were identified along Harrison Street and Pierce Street. Harrison Street was identified for improved lighting and sidewalks. Harrison is also a key route to Oasis Elementary school, while Pierce Street has a history of collisions, and would benefit from either separated routes or traffic calming. Both routes would be over 1 mile long and therefore should cater to bicycling as a primary mode of travel. Key destinations, including grocery stores, transit stops and job centers should also be outfitted with bike racks, bike lockers and even bike shares where feasible.

32 PROJECT OAS-UG-1
33 PROJECT OAS-UG-2
34 PROJECT OAS-UG-3

35 PROJECT OAS-ATP

Thermal

The community of Thermal is a small unincorporated community south and east of the Jacqueline Cochran Regional Airport and north of Oasis. Thermal has a small downtown which includes a post office, convenience stores and elementary school Thermal is connected to the region by Highway 111 and Harrison Street and the 91 Line bus route. Many community members work in the nearby cities of Coachella and Indio. The majority of Thermal Residents work less than 10 miles away from home, however very few stay in Thermal for work (LEHD 2015). As shown in Table 7-5, only 5.1% of workers commute to work by walking, biking or taking transit; and 9.7% of residents do not have access to a car. Similar to most communities in the eastern Coachella Valley, Thermal also has severely low tree cover, which makes the community less resilient to extreme heat events and less likely to enjoy walking or biking outside. Almost 10% of housing in Thermal is considered uninhabitable and 36.5% of low-income renters spend more than half their income on housing. In the community survey, Thermal residents indicated that affordable housing, community parks and water and wastewater infrastructure as their top three priorities.

Table 7-5 Thermal Community

Census Tract	Community Score	Relative Score[5]
Percentage of Active Commuters	5.1%	Low (less than 54.7% of the state)
Percentage of Residents Without Access to a Car	9.7%	Low (less than 73.6% of the state)
Percentage Tree Canopy	2.4%	Very Low (less than 92.8% of the state)
Supermarket Access[1]	0.0%	Very Low (less than 96.7% of the state)
Park Access[2]	17.1%	Very Low (less than 89.3% of the state)
Housing Uninabitability[3]	9.0%	Very High (higher than 98.9% of the state)
Low-Income Homeowner with Severe Housing Cost Burden[4]	10.6%	Low (lower than 57.8% of the state)
Low-Income Renter with Severe Cost Burden[4]	36.5%	High (higher than 81.7% of the state)

Notes: *This data reflects all of Census Tract 456.09, which also includes the area around downtown Thermal*
[1]*This is measured as the percentage of people in urban areas who reside less than 0.5 miles from a grocery store/supermarket, or less than 10 miles in a rural area.*
[2]*This is measured as the percentage of people who live within 0.5 miles of a park, beach or open space greater than 1 acre*
[3]*This is measured as the percentage of people who reside in households without basic kitchen facilities and plumbing.*
[4]*This is measured as the percentage of people who pay more than 50% of their income in housing costs.*
[5]*These scores are representative of which quartile this county falls into when compared to the rest of California (Very High - upper 25%, High - upper 50%, Low - lower 50%, Very Low - lowest 25%)*
Source: *PHASC 2018*

Figure 7-7 Thermal Community Projects

Potential projects are outlined in Figure 7-7, Thermal Community Projects, and described below. A preliminary evaluation of each project is included in Appendix B.

Affordable Housing and Sustainable Communities Program

Opportunity parcels in Thermal were identified on the east side of the 86 Expressway just south of Airport Boulevard.[36] These sites were identified because they are zoned residential, but not currently being used for housing. These sites are also within 0.25 miles of a park or transit station. These sites are separated from downtown Thermal and the community amenities such as the post office, school and grocery store by Highway 111 and the 86 Expressway. To combat this separation, active transportation improvements on Airport Boulevard would be essential to making such housing projects successful. The parcels identified are designated for housing, however, they are zoned for residential-agriculture and would need to be up-zoned to meet the density requirements of the AHSC grant. While the sites are in close proximity to transit, connections to work and shopping could also be improved though flexible transit, including an electric car and or bike share, and the use of Cal-Vans to support agricultural workers whose job sites are not located on a transit line.

Given the agricultural nature of the community, the proposed sites could be developed into courtyard apartments or townhomes with shared green space and community gardens, would provide the feel of single-family homes preferred by the community, but with the density and amenities required to qualify for grant funding. Sites on the west side of Highway 111 were not pursued due to their proximity to the airport. Much of the zoning near the airport is industrial, as the noise and pollution impacts from the airport make them less suitable to housing.

36 PROJECT THE-AHSC

Transformative Climate Communities

Community residents in Thermal highlighted the need for energy collectives and access to healthy food during community outreach. These goals can be achieved in tandem with Polanco park improvements by creating an energy and/or food collective.

An energy collective could be established in tandem with an existing residential community by building a small solar farm adjacent to the community and connecting the residents to the solar energy.[37] If excess energy is produced, the collective can sell it back to the grid at wholesale prices for additional savings. The solar system should be designed to be net-zero. Net-zero systems generate the same amount of energy that the associated residential project is anticipated to use in a year. This results in reduced energy bills if a household is using energy equal to or less than anticipated. The system can be set up to give each household an energy allowance, which encourages residents to manage their own energy. Such a system should be coupled with energy efficiency retrofits and educational materials to both size the system correctly and provide residents with the tools they need to manage their own energy. Solar systems are allowed with a conditional use permit on parcels ten acres or greater in commercial, manufacturing and agriculture zoning.

Secondly, a food collective, through a farm stand, farmers market, grocery store or community kitchen could be established using TCC funds. Ideal sites for such a project would be close to both farms and consumers. This could be achieved on the south end of downtown or near farms on the east side of the 86 Expressway, in tandem with

37 PROJECT THE-TCC-1

housing and or SALC projects.[38] A successful food collective would not only provide residents with access to affordable healthy food but would also provide job training opportunities to community residents on operating such a business.

Lastly, community residents identified a need for a park and community amenities accessible to the Sunbird Mobile home park. This could be developed as a community center with workforce development resources and afterschool programs for the students at the Avenue 66 school complex. This community center could also over-produce solar to provide energy to the adjacent mobile homes, host community gardens and serve as a cool zone on extreme heat days.[39]

Sustainable Agriculture Land Conservation

The Whitewater River runs through the middle of Thermal between Highway 111 and the 86 Expressway. As a result, much of the developed areas of Thermal near the major roads are within the 100- or 500-year flood zone. SALC grants could be pursed in the existing agricultural land that is adjacent to downtown and the river, as it is at risk for conversion to urban development, but could better serve as a flood barrier.[40] These parcels are also not ideal for development due to the poor air quality around major roadways. If the community felt that such protections limited the ability for the community to provide enough housing or jobs, the County could set up a density transfer program and allow more infill development and protect agricultural land. Additionally, this project should be designed in tandem with the food collective described above Such a project should be developed with a food collective as described above.

38 PROJECT THE-SALC
39 PROJECT THE-TCC-2
40 PROJECT THE-SALC

Urban Greening

Desert Recreation District has identified a park project at the southeast corner of Church and Olive Street.[41] This park is close to community amenities including schools, homes and retail. The land has already been acquired and partial funding sources have been identified. The park is currently in an outreach and design stage to ensure that the park serves community needs. Community parks were the most popular urban greening strategy in the outreach survey, and this park could help meet that need. Additionally, this park could be improved with the addition of bike and pedestrian infrastructure between the park and Airport Boulevard.

Active transportation improvements on Airport Boulevard were identified in public outreach as described below and would be essential to connect services in Thermal to the housing projects suggested for the AHSC grant. They would also connect the community to the CV Link project. Complete street greening would buffer the community from air and sound pollution from the major roadways, slow traffic and cool the air.[42] Additionally, freeway cap parks over the 86 Expressway and Highway 111 could be added to make the corridor more appealing and reduce the boundary effect of the freeways.

41 PROJECT THE-UG-1
42 PROJECT THE-UG-3

Active Transportation Program

Active transportation improvements including sidewalks, bike lanes and urban greening were identified as key opportunities in Thermal during mapping activities.[43] In north Thermal, active transportation improvements were suggested along Airport Boulevard and Polk Street. An existing bus line runs down Airport Boulevard and sidewalks lead into downtown Thermal from there. Additionally, key improvements here would connect the community to transit stops along Airport Boulevard and would also connect the community to CV Link. These improvements should be coupled with urban greening (described above) to make complete corridors.

In south Thermal, community residents identified similar needs on Avenue 66 and Tyler Street to connect the co-located elementary, middle school and high school. Both Airport Boulevard and Avenue 66 are also collision hot spots in the community. Additionally, community members identified these intersections as community priority intersections during outreach events for the Neighborhood Mobility Plan for the Communities of Thermal and Oasis (Neighborhood Mobility Plan) (County of Riverside 2018).

In outreach events for the Neighborhood Mobility Plan, residents indicated that they would prefer to bike and take the bus; however, there is very limited bike infrastructure and sparse public transit service. During the community needs assessment, community members expressed a need for better public transportation opportunities into the nearby job centers. Due to the lack of infrastructure, the Neighborhood Mobility Plan suggested a network of Class One, separated multi-use paths that would accommodate people biking and walking without cars (refer to Figure 7-6). Lastly, community members expressed a need for more lighting and general safety on community streets. The lack of formal infrastructure, traffic calming and lighting create a feeling of unsafety for walking and biking, especially at night, and will be an important component of active transportation projects. These design considerations should be considered in all active transportation projects.

43 PROJECT THE-ATP

intentionally left blank

References

Chapter 1: Introduction

CCI (California Climate Investments). 2019. "About California Climate Investments." Accessed May 2019. http://www.caclimateinvestments.ca.gov/about-cci

DWR (California Department of Water Resources). 2016. *2016 Water-Energy Grant Program. Guidelines and Proposal Solicitation Package*. Accessed January 2019. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Work-With-Us/Grants-And-Loans/Water-Energy-Grant-Programs/Files/2016-Water-Energy-Grant-Program-Guidelines-and-PSP.pdf.

ILG (Institute for Local Government). 2018a. *What Is Cap and Trade?* Accessed December 2018. http://www.ca-ilg.org/post/what-cap-and-trade.

ILG. 2018b. *Affordable Housing and Sustainable Communities Program (AHSC)*. Accessed December 2018. http://www.ca-ilg.org/post/affordable-housing-and-sustainable-communities-program-ahsc.

ILG. 2018c. "Sustainable Agricultural Land Conservation (SALC)." Accessed December 2018. http://www.ca-ilg.org/post/sustainable-agricultural-land-conservation-salc.

ILG. 2018d. "Urban Greening Grant Program." Accessed December 2018. http://www.ca-ilg.org/post/urban-greening-grant-program.

SGC (Strategic Growth Council). 2018. *Transformative Climate Communities Program Final Guidelines*. Accessed October 2018. http://sgc.ca.gov/programs/tcc/docs/20180815-TCC_Final_GUIDELINES_07-31-2018.pdf.

State of California. 2015. *Low-Income Weatherization Program.* Accessed May 2019. https://www.csd.ca.gov/liwp.aspx

State of California. 2018. *Low Carbon Transit Operations Program.* Accessed May 2019. http://www.dot.ca.gov/drmt/splctop.html

Chapter 2: Community Outreach

No references are cited in this chapter.

Chapter 3: Existing Plan Evaluation and Findings

CDC (Centers for Disease Control and Prevention). 2019. Climate Change Decreases the Quality of the Air We Breathe. Accessed May 2019. https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final_508.pdf

City of Coachella. 2006. *City of Coachella Entertainment Commercial District Vision Plan*.

City of Coachella. 2015a. *City of Coachella General Plan*. Accessed October 2018. https://www.coachella.org/departments/general-plan-2035.

City of Coachella. 2015b. *City of Coachella Climate Action Plan*. Accessed October 2018. https://www.coachella.org/home/showdocument?id=2880%20.

County of Riverside. 2018. *Neighborhood Mobility Plan for the Communities of Thermal and Oasis*.

CSGC (California Strategic Growth Council). 2017. *Transformative Climate Communities Program Final Guidelines*. Accessed October 2018. http://sgc.ca.gov/meetings/council/2017/docs/08-24-TCCFINALGUIDELINES-Revised82317.pdf.

Opticos Design Inc. 2008. M*oving Mecca Forward*. Accessed December 2018. https://www.lgc.org/wordpress/wp-content/uploads/2016/06/ME_Rpt_ExecSum_063008.pdf.

Riverside County. 2015a. *County of Riverside General Plan*. Accessed October 2018. https://planning.rctlma.org/ZoningInformation/GeneralPlan.aspx.

Riverside County. 2015b. *Riverside County Climate Action Plan*. Accessed October 2018. https://planning.rctlma.org/CAP.aspx.

Riverside County. 2016. *Eastern Coachella Valley Area Plan*. Accessed October 2018. https://planning.rctlma.org/Portals/0/genplan/general_plan_2014/GPA960/GPAVolume2/2Eastern%20Coachella%20Valley%20Area%20Plan-%20GPA%20No%20960%20Volume%202% 202014-02-20.pdf.

Chapter 4: Disruptive and Emerging Trends

APA (American Planning Association). 2012a. "Planning for Urban Forestry Benefits." *PAS QuickNotes* No. 39. Prepared by R.J. Laverne for the APA's Planning Advisory Service. Accessed January 2019. https://planning-org-uploaded-media.s3.amazonaws.com/document/PASQuickNotes39.pdf.

APA. 2012b. "The Farmland Protection Toolbox." *PAS QuickNotes* No. 35. Prepared by J. Dempsey for the APA's Planning Advisory Service. Accessed January 2019. https://planning-org-uploaded-media.s3.amazonaws.com/document/PASQuickNotes36.pdf.

APA. 2016. "A More Perfect Union: Planning in Urban and Community Forestry." Blogpost by J.S. Napier. April 29, 2016. Accessed January 2019. https://www.planning.org/blog/blogpost/9101370/.

APA. 2019. *Urban Agriculture*. APA KnowledgeBase Collection database. Accessed January 2019. https://www.planning.org/knowledgebase/urbanagriculture/.

California Health and Safety Code, Division 13: Housing, Part 1.5: Regulation of Buildings Used for Human Habitation, Chapter 4: Application and Scope, Section 17958.1.

Chabria, A. 2017. "Sacramento Public Housing Residents Just Got Free Zipcars." *Sacramento Bee*. May 5, 2017. Accessed February 2019. https://www.sacbee.com/news/local/article148948619.html.

City of San Diego. 2017. *Housing Action Plan*. Accessed February 2019. https://www.sandiego.gov/sites/default/files/housing_plan_final.pdf.

Grounded Solutions Network. 2019. "Inclusionary Housing: Designing a Policy." Accessed February 2019. https://inclusionaryhousing.org/designing-a-policy/.

Home for All. 2019. "Residential Tenant Protections." Accessed February 2019. https://homeforallsmc.org/toolkits/residential-tenant-protections/.

Layfield, D. 2019. "Common Questions about Affordable Housing." D. Layfield and ApartmentSmart.com Inc. Accessed February 2019. https://affordablehousingonline.com/housing-common-questions.

Meyers Nave. 2017. *Guide to the California Density Bonus Law*. Prepared by J. Goetz and T. Sakai. Revised January 2017. Accessed November 2018. http://www.meyersnave.com/wp-content/uploads/California-Density-Bonus-Law.pdf.

Schneider, B. 2018. "CityLab University: Inclusionary Zoning." July 17, 2018. Accessed November 2018. https://www.citylab.com/equity/2018/07/citylab-university-inclusionary-zoning/565181/.

Wyatt, A. 2013. "'SRO' Has Got to Go." *Planning Magazine* July 2013. Accessed November 2018. https://www.planning.org/planning/2013/jul/.

Chapter 5: Plan and Policy Gap Analysis

EPA (U.S. Environmental Protection Agency). 2017. *Learn About Heat Islands*. Accessed May 2019. https://www.epa.gov/heat-islands/learn-about-heat-islands.

Smart Growth America. 2019. "Elements of a Complete Streets Policy." Accessed May 2019. https://smartgrowthamerica.org/resources/elements-complete-streets-policy/.

Chapter 6: Technical Guidance

CACT (California Active Transportation Commission). 2019. Active Transportation Program Small Infrastructure Scoring Rubric. Accessed May 2019. http://www.catc.ca.gov/programs/atp/2019/docs/Cycle_4_ATP_Scoring_Rubric_Small_Infrastructure.pdf.

CAPCOA (California Air Pollution Control Officers Association). 2010. Quantifying Greenhouse Gas Mitigation Measures. Accessed December 2018. http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.

CAPCOA. 2017. User's Guide for CalEEMod Version 2016.3.2. Accessed December 2018. http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

CARB (California Air Resources Board). 2018. CCI Quantification, Benefits, and Reporting Materials. Accessed May 2019. https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials?corr.

CEHTP (California Environmental Health Tracking Program). 2019. "Air Quality and Health in Imperial Valley." Accessed April 2019. http://cehtp.org/page/imperial_county/air-quality-and-health-in-imperial-valley.

CNRA (California Natural Resources Agency). 2019. "Urban Greening Program Final Guidelines". Access January 2019. http://resources.ca.gov/grants/wp-content/uploads/2019/01/Urban-Greening-Program-Guidelines-Round-Three.pdf.

CTC (California Transportation Commission). 2019. "2019 Active Transportation Program Guidelines." Accessed April 2019. http://www.catc.ca.gov/programs/atp/2019/docs/051618_2019_ATP_Guidelines_Final_Adopted.pdf.

DOF (California Department of Finance). 2018. *Income*. Accessed October 2018. http://www.dof.ca.gov/Forecasting/Economics/Indicators/Income/.

HCD (California Department of Housing and Community Development). 2019. *State Income Limits for 2019*. Accessed May 2019. http://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2019.pdf.

ILG (Institute for Local Government). 2018. "Urban Greening Grant Program." Accessed April 2019. https://www.ca-ilg.org/post/urban-greening-grant-program.

ILG. 2019. "Sustainable Agricultural Land Conservation (SALC)." Accessed April 2019. https://www.ca-ilg.org/post/sustainable-agricultural-land-conservation-salc.

ODPHP (Office of Disease Prevention and Health Promotion). 2018. *Social Determinants of Health*. Accessed October 2018. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health.

OEHHA (Office of Environmental Health Hazard Assessment). 2018. CalEnviroScreen 3.0. Accessed October 2018. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.

PHASC (Public Health Alliance of Southern California). 2018. The California Healthy Places Index. Accessed October 2018. https://healthyplacesindex.org/.

SGC (Strategic Growth Council). 2018a. *Affordable Housing and Sustainable Communities Fact Sheet*. Accessed January 2019. http://www.sgc.ca.gov/programs/ahsc/docs/20180731-Update-Fact%20Sheet-AHSC.pdf.

SGC. 2018b. *Affordable Housing and Sustainable Communities Program Round 4 FY 2017–2018*. Accessed January 2019. http://www.sgc.ca.gov/programs/ahsc/docs/20181031-AHSC_17-18_FINAL_Guidelines.pdf.

SGC. 2016c. California Sustainable Agricultural Lands Conservation Program Grant Guidelines & Applications. Accessed May 2019. http://sgc.ca.gov/programs/salc/docs/20181102-18-19_SALCP_Guidelines_Public_Comment.pdf.

Chapter 7: Community Project Recommendations

County of Riverside. 2018. *Neighborhood Mobility Plan for the Communities of Thermal and Oasis*.

County of Riverside Department of Transportation. 2018. "Neighborhood Mobility Plan for the Communities of Thermal and Oasis." Accessed 2019.

LEHD (Longitudinal Employer-Household Dynamics). 2015. On the Map 2015 Distance and Direction Data. Accessed May 2019. https://onthemap.ces.census.gov/

PHASC (Public Health Alliance of Southern California). 2018. The California Healthy Places Index. Accessed October 2018. https://healthyplacesindex.org/.

800.450.1818 | DUDEK.COM | HELLO@DUDEK.COM

SOUTHERN CALIFORNIA
Encinitas (Main)
La Quinta
Pasadena
Riverside
San Juan Capistrano

CENTRAL COAST
Santa Barbara
Santa Cruz

NORTHERN CALIFORNIA
Auburn
Oakland
Sacramento

HAWAII
Kailua

OREGON
Portland

HABITAT RESTORATION SCIENCES
A Dudek Subsidiary

DUDEK

78-075 Main Street Suite G-203 La Quinta, CA 92253 • 760.341.6660