GREEN TOGETHER

2022 PROGRESS REPORT ON IMPLEMENTATION OF THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM GRANT

UCLA Luskin Center for Innovation

Acknowledgments

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Disclaimer
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For More Information
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Cover image: Youth assisting with community outreach for TCC funded tree plantings in August 2020. (Photo credit: Pacoima Beautiful)

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EXECUTIVE SUMMARY

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM (TCC) is an innovative, new investment in community-scale climate action, with potentially broad implications. Launched in 2017 by the California State Legislature, TCC funds the implementation of neighborhood-level transformative plans that include multiple, coordinated projects to reduce greenhouse gas (GHG) emissions. The program is also designed to provide an array of local economic, environmental, and health benefits to disadvantaged communities, while minimizing the risk of displacement. TCC empowers the communities most impacted by pollution to choose their own goals, strategies, and projects to enact transformational change — all with data-driven milestones and measurable outcomes.

The California Strategic Growth Council (SGC) serves as the lead administrator of TCC. Through a competitive process, SGC awarded multi-million dollar grants in three rounds of awards. The UCLA Luskin Center for Innovation (LCI) serves as the lead evaluator for all three Round 1 sites, one Round 2 site (Northeast San Fernando Valley), and one Round 3 site (Stockton). LCI researchers are working with the these communities to document their progress and evaluate the impacts of TCC investments. See the Background section for a list of all TCC sites.

This progress report is the second in a series of five annual reports that will provide an overview of the funded projects, key accomplishments, and estimated benefits of TCC investment in the Northeast San Fernando Valley project area, collectively referred to as Green Together.[3]

This specific report documents progress through the end of FY 2020-21, which overlaps with about 30 months of program implementation for leveraged projects (December 2018 - June 2021), almost 14 months of implementation for funded projects (May 2020 - June 2021), and 1.5 years of the COVID-19 pandemic. Leveraged projects were allowed to begin when the grant was awarded, funded projects could begin at the time of grant execution. Project partners' responses to the pandemic are highlighted throughout the report.

[3] For annual reports that LCI has produced for other TCC sites, visit: https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/

GRID Alternatives team tabling at the Green Together Launch in May 2021. Photo credit: Pacoima Beautiful

The Northeast Valley Today

Located in the Northeast San Fernando Valley (NE Valley) in the City of Los Angeles, the Green Together project area includes part of the Pacoima and Sun Valley neighborhoods. The area is a vibrant, predominantly Latino immigrant community situated under the flight path of Whiteman Airport, at the intersection of multiple freeways, transportation corridors, and other industries that are a significant source of noise, greenhouse gas (GHG) emissions, and air pollution. In spite of decades of local grassroots activism to address community needs, residents continue to face many economic and health challenges, including high pollution burden, high rates of poverty and obesity, and early stages of residential and commercial gentrification. Climate change could exacerbate these challenges.

Green Together

The roots for TCC in the NE Valley were laid in 2007, when a coalition of community residents, public agencies, and environmental groups worked to develop a collaborative process to reimagine a four-mile stretch of Pacoima Wash, a concrete channelized tributary of the Los Angeles River. Led by Pacoima Beautiful, the only environmental justice organization in the NE Valley, they held public workshops to collaboratively select projects to address key issues identified by the community. These efforts culminated with the 2011 Pacoima Wash Vision Plan. Revitalization of the wash began in 2015 through the Pacoima Urban Greening Vision Plan with a grant from the SGC. The partnerships and goals borne out of these plans, as well as Pacoima Beautiful's 20 years of grassroots organizing, laid the groundwork for Green Together's TCC proposal.

In late 2018, Green Together was selected by SGC for a TCC grant of $23 million to bring to fruition their vision of a "neighborhood that is safe, green, socially inclusive and resilient to climate change". Green Together also committed to leveraging at least $38.69 million in outside funds to bring their vision to fruition. Along with previously funded sites, Green Together will serve as one of the first five communities in the country to pilot a community-led, multi-benefit and place-based climate change mitigation program that specifically targets the needs of low-income households.

Projects

Green Together includes a total of twelve projects, three of which are fully funded by TCC dollars, six are funded by leveraged dollars, and three are funded projects that includes leverage funds to meet grant requirements. The TCC funded and leveraged projects work synergistically to achieve the broad goals of TCC. The funded projects are consolidated into six distinct project types (summarized below). The funded and leveraged projects are mapped in Figure 1 (where applicable).

TCC Funded Projects

Active Transportation — Funds two distinct projects focused on pedestrian improvements and creating four mobility hubs. Street enhancements include 900 ft of new sidewalks, 5 new wayfinding signs, 10 ADA ramps, 10 bicycle sharrows, and 3 high-visibility crosswalks on Herrick Avenue and Haddon Avenue. The mobility hubs include bike share infrastructure, bike parking, seating, wayfinding signage and public art. These projects will reduce car travel by making alternative mobility options safer and more convenient.

Transit Operations — Leverages TCC funds and other public dollars to electrify the DASH bus fleet that travels through the project area, with 14 new battery-electric buses and 7 electric chargers. It couples these investments with increases to the frequency of bus service with a new E-DASH route. The investment is aimed at improving transit ridership and reducing vehicle miles traveled (VMT) with transit routes that better respond to the community's needs.

Low Carbon Transportation — The implementation of EV charging infrastructure and air quality monitoring at the four mobility hubs described above. The low carbon transportation project fills a critical mobility gap and will increase residents' access to services and amenities without producing GHGs from tailpipe emissions.

Rooftop Solar — Leverages TCC funds and private dollars to install approximately 669 kilowatts of solar photovoltaic systems on 175 single-family homes in the project area. The project will enhance local generation of renewable energy and lower energy costs for property owners. The installation project is also part of the workforce development plan training activities that will create a pipeline of future local jobs and a thriving solar workforce in the Northeast Valley.

Urban Greening — Community-driven design process and renovation of the existing 6.8-acre David M. Gonzalez Park. Project renovations include 95 shade trees; new walking paths; and over an acre of new stormwater management landscapes, including drought-tolerant vegetation, and a learning garden with native plants and bioswales. The project will result in the sequestration of carbon through maturing trees and provide shading benefits.

Urban and Community Forestry — Leverages TCC funds and other public funds to plant and maintain 2,000 new trees, focusing on shade for commercial and residential properties to reduce AC usage. As the trees mature, they will sequester carbon and shade nearby buildings, which should reduce the demand for electricity for cooling purposes. The additional tree coverage will also reduce the urban heat island effect on hot days and absorb stormwater on rainy days.

Leveraged Projects

Cool Roof Retrofits — Leverages funds to install 35 cool roofs on residential homes in the project area. The project will reduce interior temperatures during periods of extreme heat. Similar to the rooftop solar project, cool roof retrofits will lower energy and utility costs for property owners.

Community Resiliency Center — Leverages local public funds to develop community resiliency infrastructure by renovating David M. Gonzales Recreation Center with a 40kW solar photovoltaic system and approximately 40kW of energy storage, and 2-4 electric vehicle service equipment (EVSE) charging stations.

Bradley Green Alley & Plaza Renovation — Transforms 0.67 acres of alley and plaza space near a main commercial corridor and public housing with 800 ft of alley and street improvement, street lights, seating, shade, 1000 vines and shrubs, 46 trees, and a stormwater capture system to infiltrate up to 5 acre ft of water annually. The project supports multimodal travel in the area, and supplements water supply efforts for the City of Los Angeles.

East San Fernando Valley Transit Corridor — Leverages partnership with LA Metro provides light rail transit service that will pass through the project area. Three stops are planned for the area. Project components include design documents, community engagement, and first/last mile station area plans.

Fernangeles Park Stormwater Capture — Leverages partnership with public agencies to install a 1.6 acre underground infiltration gallery in the existing Fernangeles Park. Features include a catch basin as well as bioswales and park improvements. The project will supplement local water supplies.

Green Streets — Funds the installation of green stormwater infrastructure design and construction in partnership with public agencies. Project features include bioswales, drywells, curb inlets, vegetation, and tree planting in various parts of the project area. The project supports regional efforts to capture and infiltrate water and ensure the Los Angeles region has a source of local water supply.

Bradley Green Alley & Plaza before and after renovation through the leveraged project led by Trust for Public Land and Pacoima Beautiful. Photo credit: Trust for Public Land

Transformative Plans

TCC is unique from other state-funded GHG reduction programs because it requires grantees to develop three transformative plans to maximize the benefits of the previously described projects and to minimize unintended harms. Specifically, grantees were required to develop a community engagement plan (CEP), workforce development plan (WDP), and displacement avoidance plan (DAP).

Respectively, these three plans are designed to ensure that TCC investments reflect the community's vision and goals, bring economic opportunities to low-income households, and minimize the risk of gentrification and displacement of existing residents and businesses. In the case of Green Together, these three plans have been adapted in the following ways:

Community Engagement Plan

» **Formalize** resident participation in TCC grant governance through the establishment of the publicly elected Leadership Council that will provide feedback on key decisions to the Steering Committee. The full Council will include:
- 2 residents
- 2 business leaders
- 2 local nonprofits
- 2 anchor institutions
- 2 community leaders
- 1 local elected official

» **Leverage** existing channels of engagement to solicit resident input, including:
- 2 community launch events (one virtual, one at Pacoima City Hall)
- 9 convenings with members of the Leadership Council
- 1 bilingual presentation by UCLA on the Displacement Avoidance Plan

» **Conduct** outreach to connect residents with TCC projects, including:
- 368 bilingual flyers distributed on the Green Together Collaborative launch and tree plantings
- 200 stakeholders engaged at workshops on feed-in-tariffs

Workforce Development Plan

» **Establish** the Green Together Resource Center, a hub for WDP activities

» **Connect** youth and residents with training and educational opportunities that provide them with new skills in solar, construction and urban forestry:
- 4 residents enrolled in job training opportunities

» **Place** residents in employment opportunities on TCC and leveraged projects, including:
- 24 part-time jobs on street tree planting crews

Displacement Avoidance Plan

» **Incentivize** locally relevant affordable housing by understanding barriers and potential solutions to building accessory dwelling units
- 235 bilingual flyers distributed on accessory dwelling units

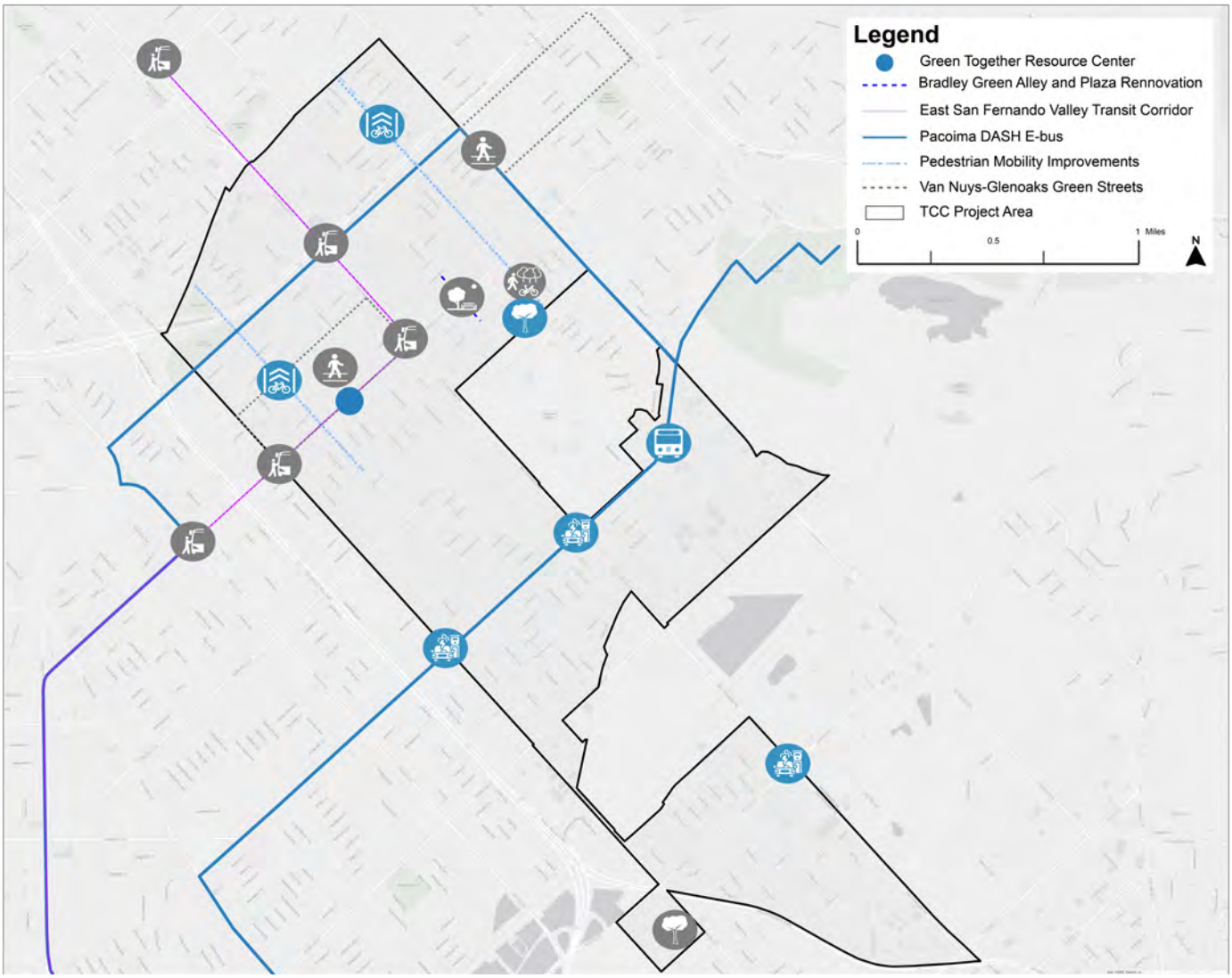
» **Protect** tenure of existing residents through financial assistance education program

» **Retain** local small business and artist community by conducting outreach and providing technical assistance
- 7 businesses visited to assess the health and needs of businesses
- 3 businesses near the Bradley Alley Plaza engaged on building and growing their business with support from the local community development corporation

Project Area

The Green Together project area was configured to bring investment to some of the state's most disadvantaged neighborhoods. The majority of census tracts within the project boundary area are defined as disadvantaged according to CalEnviroScreen 3.0, and around 35% of the project area ranks within the top 5%. The project area boundary was also drawn to connect key assets within those census tracts. Key assets include: Pacoima City Hall, 6 popular bus routes , 5 community centers, Bradley alleyway; the first shared multimodal alleyway, and a historical and vibrant collection of community murals along Van Nuys. Figure 1 shows where TCC funded projects and leveraged projects are located within the project area. See Appendix 1 for a more detailed project map.

Figure 1. Project Area Map With Locations of Projects*



***See the previous pages for information about what each project icon represents. This map does not include projects or plans that are sitewide (e.g., community engagement) or projects for which locations have not yet been determined (e.g., rooftop solar installations).** Figure credit: UCLA Luskin Center for Innovation

Anticipated Benefits

Green Together is slated to bring a number of benefits to residents of the TCC project area. The infographic below highlights a non-exhaustive list of these benefits, grouped by indicator type. This list includes outputs, outcomes, and impacts from TCC funded projects and does *not* include those from leveraged projects. Project outputs refer to the tangible goods and services that Green Together will deliver by the end of project implementation. These outputs are expected to result in many positive outcomes and impacts. Outcomes refer to changes in stakeholder knowledge, attitudes, skills, behaviors, practices, or decisions, while impacts refer to changes in the environmental or human conditions that align with the objectives and goals of TCC.

TCC Funded Project Outputs

- **4** mobility hubs with bike and pedestrian infrastructure
- **900** feet of sidewalk construction and new design improvements
- **14** new fully electric buses
- **1** new bus route serving community needs
- **2,095** minimum new trees that will provide shade for buildings and sidewalks
- **50** youth paid internships in urban forestry and brownfield remediation

TCC Funded Project Outcomes and Impacts[3]

- **19,432 32,607** metric tons (MT) of avoided GHG emissions (in CO2e)
- **$2,831,099** in travel cost savings for residents who shift their travel modes
- **9,222,827** gallons in avoided stormwater runoff
- **18,172,998** miles averted travel in passenger vehicles
- **$30,047,752** in energy cost savings for solar and street tree beneficiaries
- **95** direct jobs
  33 indirect jobs, and
  56 induced jobs supported by TCC funding[3]

[2] See Appendix 2 for a summary of methods for how these benefits were estimated. Benefits are reported as totals over the operational period of the projects, also referred to as project lifetimes.
[3] All jobs are reported as full-time equivalents (FTEs) for one year of work (approximately 2,000 hours).

Harder to quantify, but nevertheless important, is the leadership and collaboration capacity that will be created in the NE Valley over the course of the TCC implementation process. This capacity could lay the foundation for many other funding and action-oriented opportunities that leverage the TCC projects and plans to bring additional environmental, health, and economic benefits to the NE Valley. In addition, lessons learned and best practices from Green Together TCC could inform local climate action and investments well beyond Pacoima and Sun Valley.

Cumulative Accomplishments

Child plays at Green Together event in Bradley Green Alley, a TCC Leveraged project completed in May 2020. Photo credit: Pacoima Beautiful

Much has happened following SGC's announcement of Green Together's TCC award in December 2018. From then through the close of the 2020-21 fiscal year (June 30, 2021), project partners have made considerable progress toward implementing an ambitious, unprecedented climate action initiative.

Key accomplishments of Green Together project partners are described in this section according to the phase in which they occurred. Specifically, accomplishments are divided between: (a) post-award consultation, a period of planning and preparation between the award announcement and grant execution; and (b) grant implementation, which formally began in May 2020 with the formal execution of the grant agreement with SGC.

Post-Award Consultation (January 2019 – May 2020)

Formalized Partnerships and a Governance Structure

During the post-award consultation phase, Green Together partners participated in a comprehensive review of all projects and transformative plans to ensure that they complied with TCC guidelines, and that requisite partnerships were in place to successfully carry them out. Key deliverables from this process included: an executed grant agreement with clearly defined work plans and roles for each partner; an evaluation plan to measure the effects of TCC investment in collaboration with LCI.

Key Accomplishments Through June 2021

Partnership Formation

- Developed an evaluation plan, in collaboration with LCI, for tracking the outputs and outcomes from each project and plan;
- Established Green Together Steering Committee with at least one representative for each funded and leveraged project;
- Established a publicly-elected Leadership Council to provide feedback on key decisions to the Steering Committee. It is comprised of 2 residents,2 business leaders, 2 local non-profits, 2 anchor institutions, 2 community leaders, and 1 local elected official

Green Together has formed a number of partnerships in the community to facilitate TCC implementation. Many partnerships existed prior to the TCC application process and have been institutionalized through the establishment of a collaborative stakeholder structure for coordinating grant governance, known as the Leadership Council (see **Appendix 3** for a full list of members).

Grant Implementation (May 2020 – June 2021)

Ramped Up Rollout of GHG Reduction Projects

After Green Together executed its grant agreement with SGC on May 14, 2020, implementation formally began. Now, just over one year later, the Green Together's GHG reduction projects are well underway.

Early implementation milestones for TCC-funded projects include advancing the procurement of fourteen fully electric buses, completing one solar rooftop installation,and gathering community input on both potential locations for EV charging stations and the renovation of David M. Gonzalez Park.

With respect to urban forestry efforts, project partners have planted 510 trees in the Northeast San Fernando Valley, adding vegetation where there was previously concrete. Once the trees have matured, they will also increase shade cover, thereby improving thermal conform during extreme heat events.

Deepened Community Engagement Efforts

Green Together's Community Engagement Plan (CEP) is well underway and strategically leverages much of the existing programming offered through Pacoima Beautiful.

The approach has also empowered the resident leaders to take on greater roles of public influence by strengthening their communication skills, climate literacy, and relationships with projects partners (see **pages 26-29** for case studies on resident leaders who are at the forefront of engagement efforts).

As COVID restrictions are lifted, additional implementation efforts will include culturally and linguistically appropriate outreach activities, such as learning activities, focus groups, surveys, door-to-door canvasing, and home "charlas" (talks).

Connected Residents with Training and Employment

Green Together Workforce Development Plan (WDP) is also well underway in connecting residents with training and employment opportunities. Project partners have used TCC dollars to fund the position of a workforce specialist at Green Together Resource Center, who provides one-on-one career counseling.

In addition to career counseling services, project partners have also used TCC dollars to create new training and employment opportunities on TCC funded projects. The box on the right provides detailed numbers and see **page 30** for a case study on two individuals that the Los Angeles Conservation Corps has helped make major career shifts.

Key Accomplishments Through June 2021

Climate Action

- **510** street trees planted in the project area
- **14** fully electric buses are currently being manufactured
- **6** leveraged projects launched, including environmental, design and construction processes for infrastructure projects; and
- **1** solar PV systems installed on residential properties occupied by low-income households, providing a total of 5.25 kilowatts of DC-rated (kW-DC) solar power

Community Engagement

- **2,400** stakeholders engaged through social media and direct mail
- **367** door knocks to engage residents in displacement avoidance outreach activities
- **13** meetings of the Green Together Steering Committee;
- **13** Clean Air Ambassadors recruited to support air quality data collection
- **6** presentations on TCC projects at community meetings
- **2** launch events that showcased various initiatives underway in the community, including Green Together

Workforce Development

- Established the Green Together Resource Center, a hub for job training and placement opportunities;
- **24** part-time jobs on street tree planting crews through LA Conservation Corps
- **4** residents enrolled in job training opportunities

Coordinated Efforts to Mitigate Displacement

While Green Together's Displacement Avoidance Plan (DAP) is funded entirely by leveraged sources, it has formalized coordination among project partners to address the indirect effects of TCC investments on displacement.

Over the course of two semesters from January to June of 2021, Pacoima Beautiful worked closely with UCLA, including 14 graduate students, Professor Vinit Mukhija, Ph.D student Jessica Bremmer and support staff Silvia R. González of the Masters of Urban and Regional Planning Program, to develop research projects that would directly support the efforts of the Displacement Avoidance Plan. Milestones are listed in the box on the right.

To mitigate commercial displacement, project partners have conducted site visits and surveys to assess the health and needs of small businesses, and then linked engaged stakeholders with services offered and resources offered through ICON, the local community development corporation.

Completed Implementation of Two Leveraged Projects

In the Summer of 2020, the Bradley Green Alley and Plaza renovation project wrapped up construction activities and the Green Together Collaborative hosted a ribbon cutting in October 2020. The construction contractor completed landscape and plant maintenance twice a month for one year, ending April 2021. Since then, Pacoima Beautiful has been supporting on landscape maintenance.

Van Nuys-Glenoaks Green Streets Project is a stormwater management approach that incorporates vegetation, soil, and engineered systems to slow, filter, and clean urban runoff from impervious surfaces. The project added 14,000 square feet of new vegetation for to stormwater capture and infiltration and nearly 100,000 gallons of rainwater storage. The project construction began on September 21, 2020 and completed on March 31, 2021. A ribbon cutting event was held on June 21, 2021.

These projects are two of six leveraged projects included in the Green Together project proposal. These projects are funded by leveraged dollars and contribute to achieving goals in the project area.

Key Accomplishments Through June 2021

Displacement Avoidance

- **235** bilingual flyers distributed about accessory dwelling units
- **110** surveys distributed to assess business needs and concerns with displacement
- **20** survey responses received from local businesses
- **14** white papers produced on planning topics relevant to DAP
- **7** local small businesses visited to assess the health and needs of businesses
- **3** businesses near the Bradley Alley Plaza engaged on building and growing their business with support from the local community development corporation
- **3** research projects presented to local stakeholders: Strategies to Help Pacoima Small Businesses Thrive, A Business Displacement Avoidance Plan; Formalizing ADUs in Pacoima; Climate Resilient Infrastructure, Incremental and Scalable Projects
- **1** feasibility study completed for a community land trust to increase locally relevant housing options

Leveraged Projects

Bradley Green Alley and Plaza Renovation

- Construction completed
- **46** trees planted in the project area
- **24** trees planted
- **1** new shade structure and several sitting areas added to plaza, along with the existing exercise equipment and trash bins

Van Nuys-Glenoaks Green Streets Project

- Construction completed
- **700** linear feet of improvement to a median island
- **18** infiltration drywells
- **11** pretreatment chambers
- **11** catch basins
- **2** vegetated stormwater curb extensions

BACKGROUND

Governor Jerry Brown in Fresno signs a package of climate change bills in September of 2016, including Assembly Bill 2722, which was authored by Assemblymember Autumn R. Burke (at right) and established the Transformative Climate Communities (TCC) Program. Photo credit: The Fresno Bee

The Vision Behind TCC

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM (TCC) was authorized in 2016 by Assembly Bill 2722 (authored by Assembly member Autumn Burke). The bill's intent is to fund the development and implementation of neighborhood-level transformative climate community plans that include multiple coordinated greenhouse gas (GHG) emissions reduction projects that provide local economic, environmental, and health benefits to disadvantaged communities.[6] The program is part of California's broader suite of programs, referred to as California Climate Investments, that use revenues from the state's Cap-and-Trade Program to fund projects that reduce GHG emissions. TCC is novel because of three signature elements: 1) its place-based and community-driven approach toward transformation; 2) robust, holistic programming via the integration of diverse strategies; and 3) cross-sector partnerships. The authors of this report are not aware of such a comprehensive, community-driven, and place-based climate action program anywhere else in the world.

[6] AB 2722, Transformative Climate Communities. 2016. Web. February 2017. Retrieved from: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2722

As a place-based program, all grant applicants must identify a project area that will be the focus of the TCC proposal. Proposals must be borne out of a robust community engagement process that brings together residents and stakeholders towards the development of a shared vision of how to invest TCC funds. The program's emphasis on comprehensive community engagement helps ensure that proposals are based on a deep understanding of a community's needs and assets, thereby maximizing the benefits that TCC dollars bring to existing residents in a selected site.

As a holistic program, TCC integrates a wide variety of GHG reduction strategies, such as sustainable land use, low carbon transportation, renewable energy generation, urban greening, and waste diversion. With these strategies in mind, TCC grantees develop site-specific projects, such as transit-oriented affordable housing, expanded bus service, rooftop solar installations, tree planting, and food waste recovery. These GHG reduction projects are modeled after existing California Climate Investment (CCI) project types, but TCC is novel in that it unifies them into a single, place-based initiative. In addition to integrating various CCI project types, TCC also requires TCC sites to incorporate crosscutting transformative plans, ensuring that TCC investment is underpinned by meaningful community engagement, provides direct economic benefits to existing residents and businesses, and enables these stakeholders to remain in their neighborhood. Moreover, grant recipients are expected to use TCC dollars in concert with other sources of funding that could complement the TCC investment to implement the community vision.

Last, the program emphasizes cross-sector partnerships by requiring applicants to form a coalition of organizations that would carry the implementation of the community vision. To assure that the implementation will deliver the community vision, all applicants are required to have an oversight committee that consists of project partners, community members, and local community-based organizations. The diverse partnerships, robust governance, and aforementioned transformative plans help ensure transparency and accountability for the investments, all while building the capacity of communities historically underinvested in, thereby helping to reverse that trend.

Program Administration

SGC awards TCC grants and administers the program in partnership with the Department of Conservation (DOC), with collaboration by other state agencies. SGC staff coordinates efforts with partnering state agencies and works with the California Air Resources Board (CARB) and DOC on program guidelines, evaluating applications, preparing agreements, monitoring agreement implementation, and program reporting.

There are two types of grants administered through TCC: implementation grants and planning grants. SGC awards implementation grants to sites that have demonstrated a clear, community-led vision for how they can use TCC dollars to achieve program objectives in their communities. SGC also awards planning grants to fund planning activities in disadvantaged communities that may be eligible for future TCC implementation grants and other California Climate Investment programs. The implementation grants are funded through California's Cap-and-Trade auction proceeds while the planning grants are funded through a mix of Proposition 84 funds and Cap-and-Trade auction proceeds.

Program Awards

Since the launch of the program in 2016, there have been three rounds of awards. During Round 1, which was tied to fiscal year (FY) 2016-2017 funding, a total of $133 million was allocated to implementation grants and $1.6 million was allocated to planning grants. For Round 2, which was tied to FY 2018-2019 funding, a total of $46 million was allocated to implementation grants, and a total of $0.8 million was allocated to planning grants. Lastly, for Round 3, which was tied to FY 2019-2020 funding, a total of $48 million was allocated to implementation grants and a total of $0.6 million was allocated planning grants. Table 1 provides an overview of the implementation and planning grants that have been distributed through FY 2019-2020.

Table 1: Overview of TCC Implementation and Planning Grants Through FY 2020-2021

Site Location	Round (Fiscal Year)	Grant Type	Funding Amount
Fresno	Round 1 (FY 2016-2017)	Implementation	$66.5 million
Ontario	Round 1 (FY 2016-2017)	Implementation	$33.25 million
Los Angeles - Watts	Round 1 (FY 2016-2017)	Implementation	$33.25 million
Coachella Valley	Round 1 (FY 2016-2017)	Planning	$170k
East Los Angeles	Round 1 (FY 2016-2017)	Planning	$170k
East Oakland	Round 1 (FY 2016-2017)	Planning	$170k
Gateway Cities	Round 1 (FY 2016-2017)	Planning	$170k
Moreno Valley	Round 1 (FY 2016-2017)	Planning	$94k
Richmond	Round 1 (FY 2016-2017)	Planning	$170k
Riverside	Round 1 (FY 2016-2017)	Planning	$170k
Sacramento - Franklin	Round 1 (FY 2016-2017)	Planning	$170k
Stockton	Round 1 (FY 2016-2017)	Planning	$170k
West Oakland	Round 1 (FY 2016-2017)	Planning	$170k
Northeast Los Angeles – Pacoima/Sun Valley	Round 2 (FY 2018-2019)	Implementation	$23 million
Sacramento - River District	Round 2 (FY 2018-2019)	Implementation	$23 million
Bakersfield	Round 2 (FY 2018-2019)	Planning	$200k
Indio	Round 2 (FY 2018-2019)	Planning	$200k
McFarland	Round 2 (FY 2018-2019)	Planning	$200k
South Los Angeles	Round 2 (FY 2018-2019)	Planning	$200k
Tulare County	Round 2 (FY 2018-2019)	Planning	$200k
East Oakland	Round 3 (FY 2019-2020)	Implementation	$28.2 million
Riverside – Eastside	Round 3 (FY 2019-2020)	Implementation	$9.1 million
South Stockton	Round 3 (FY 2019-2020)	Implementation	$10.8 million
Pomona	Round 3 (FY 2019-2020)	Planning	$200k
Porterville	Round 3 (FY 2019-2020)	Planning	$200k
San Diego - Barrio Logan/Logan Heights	Round 3 (FY 2019-2020)	Planning	$200k

UCLA researcher and Pacoima Beautiful staff member at TCC Green Together Launch in May 2021. Photo credit: Pacoima Beautiful

Evaluating the Impacts of TCC

In 2017, SGC contracted with the University of California, Los Angeles and the University of California, Berkeley (UCLA-UCB evaluation team) to draft an evaluation plan for assessing the progress and outcomes of Round 1 TCC implementation grants at the neighborhood level. In November 2018, the UCLA-UCB evaluation team published an evaluation plan to serve as a guide for evaluating the three TCC Round 1 sites.[7]

For Round 2 of the program, each TCC site selected a third-party evaluator from a list of qualified evaluation technical assistance providers that were pre-approved by SGC through an open application process. The UCLA Luskin Center for Innovation (LCI) was selected by the Green Together network as the evaluator for their project, and will continue as such for the first five years of grant implementation (2020 through 2025).

Evaluation plans for Green Together closely follow the evaluation plan from Round 1. The Green Together evaluation plan was modified, where needed, in consultation with the project partners. To qualify for TCC funding, TCC applicants had to identify performance indicators associated with each proposed project type and transformative plan. The UCLA evaluation team then worked with the awarded grantees to refine their indicator tracking plans to ensure that they aligned with their project goals. To do so, the evaluator developed project-specific and plan-specific logic models in collaboration with the grantees.

Conceptual Framework for Evaluating TCC

Logic models greatly informed all of the evaluations plans that LCI produced. Logic models illustrate the interim steps that must occur for a project or plan to realize its intended goals. Within the context of TCC, these steps are defined as follows

- **Inputs:** The investment dollars and leveraged funds that support TCC
- **Activities:** The work of TCC grantees and co-applicants
- **Outputs:** The products and services that TCC projects produce and deliver
- **Short-term Outcomes:** Changes in stakeholder's knowledge, attitude, and skills
- **Intermediate Outcomes:** Changes in stakeholder's behaviors, practices, or decisions
- **Impacts:** Changes in environmental or human conditions that align with the objectives and goals of TCC

[7] The UCLA Luskin Center for Innovation and UC Berkeley Center for Resource Efficient Communities. 2018. *Transformative Climate Communities Evaluation Plan: A Road Map for Assessing Progress and Results of the Round 1 Place-based Initiatives*. Retrieved from: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf

The LCI evaluation team translated the latter four steps in the logic model framework into indicators that could be quantified and tracked for the purposes of program evaluation. The Round 2 evaluation plan for TCC summarizes the final list of indicators adopted by SGC for TCC evaluation.[8] Indicator tracking responsibilities will be partially split among the LCI evaluation team and the grantees. In general, all output-related indicators will be tracked by the grantees, while most outcome and impact related indicators will be tracked by the LCI evaluation team.

Quantitative Methods for Evaluating TCC

To quantitatively assess the effects of TCC, the LCI evaluation team will conduct two different forms of comparison: (1) before-and-after TCC investment; (2) and a with-and-without TCC investment. Together, these two modes of comparison will provide the most reliable assessment of what changes can be attributed to TCC investment.

For the before-and-after comparison , the LCI evaluation team will measure changes in indicators before and after TCC kickoff, which occurred in 2019 for Round 1 grants. Whenever possible, the LCI evaluation team will construct a five-year pre-kickoff trend line (2014-2018 for Round 1) and a five-year post-kickoff trend line (2019-2023 for Round1).

For the with-and-without comparison, the LCI evaluation team will compare trends in TCC sites to trends in a set of control sites that did not receive TCC investment. This will help isolate the effect of TCC from larger social, economic, and environmental forces that may also be acting on indicators. To support this effort, the LCI evaluation team has identified control sites that are similar to TCC sites along a number of dimensions, including socioeconomic demographics, climate, and pollution burden (as demonstrated by CalEnviroScreen scores).[9]

In addition to measuring changes within TCC sites and control sites, the LCI evaluation team is also measuring changes at the county and state level for indicators that speak to social equity (e.g., income, employment, housing costs, etc.). This will allow the LCI evaluation team to assess whether TCC is reducing socio-economic disparities between TCC sites and the broader regions where they are located. If, for example, employment slightly increases within TCC sites, but a much greater increase is observed regionally, then the economic gap between TCC sites and nearby communities has not been sufficiently addressed.

In summary, the LCI evaluation team will analyze quantitative data at four geographic scales (where possible):

- **TCC project area:** The neighborhood boundary identified by the TCC grantees in which all TCC investments will be located. In some cases, a cluster of census tracts that have more than 10% area overlap with the TCC project boundary area will be used for indicator tracking purposes instead of the actual project boundary. This is the case for all indicators that rely on American Community Survey (ACS) data, which cannot reliably be apportioned to fit the actual TCC project boundary area. See Appendix 4 for a list of census tracts that will be used as a proxy for Green Together's project boundary area.
- **TCC control sites:** A cluster of census tracts that match TCC census tracts along a number of dimensions (e.g., demographics, climate, pollution burden, etc.) but that did not receive TCC investment. Collecting before and after data for the control sites will help control for external forces that may also be acting on indicators of interest within TCC sites. See Appendix 5 for a list of census tracts serving as control sites for evaluating the impacts of TCC investment in the NE San Fernando Valley.
- **County:** The county in which TCC sites are situated (Los Angeles County in this report). County-scale measurements are helpful for understanding the degree to which TCC investments are addressing social equity concerns at a regional scale.
- **State:** The state in which TCC sites are located (California). Like county-scale measurements, statewide measurements are helpful for understanding the degree to which TCC investments are addressing social equity concerns, but at a broader scale.

It's important to underscore that not all indicators easily lend themselves to analysis at the latter three scales. Many TCC indicators rely on the collection of primary data, and it may be cost-prohibitive or technically infeasible to collect that data for control sites, the county, or the state. This is true for indicators such as trees planted and compost produced, which are reported to the LCI evaluation team directly by project partners. Even when secondary data are readily available at all four scales, it may not be prudent to use limited evaluation resources to analyze the data at all of those scales. This is true for bicyclist and pedestrian collision data, which must be cleaned and geocoded before being analyzed. Furthermore, some indicators must be estimated because they cannot be measured directly (e.g., GHG reductions, indirect jobs, etc.). In cases these cases, the LCI evaluation team is providing estimates for TCC sites only. Developing estimates for other geographic scales requires making a number of site-specific assumptions that are outside the LCI evaluation team's scope of work.

[8] Ibid.

[9] See the TCC Round 1 Evaluation Plan (Appendix 3.2) of the TCC Round 1 Evaluation Plan for a summary of the methods used to identify control sites: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf

Team from Pacoima Beautiful and UCLA before distributing surveys on Accessory Dwelling Units for the Displacement Avoidance Plan in Spring 2020. Photo credit: Pacoima Beautiful.

It is also important to note that it could take a generation for the transformative impacts of TCC investment to be quantitatively measured. Urban tree canopy, for example, can take 40 years to grow to maturity. Similarly, a career transition can require close to a decade (or more) of education and skill building. Thus, at the end of the relatively short five-year evaluation period, changes in impact indicators may be too small to draw any statistically valid conclusions. Nonetheless, the LCI evaluation team will update impact indicators annually for the sake of maintaining a complete time series. See Appendix 6 for the latest indicator data the LCI has collected.

Qualitative Methods for Evaluating TCC

Many of the potential benefits of TCC will likely be missed by the quantitative methods previously described. For example, improvements in wellbeing, community capacity to tackle new challenges, and communication across diverse stakeholder groups are difficult to describe in numerical terms. Thus, in order to capture some of the nuanced effects that TCC may have at the individual and community level, the LCI evaluation team will be analyzing qualitative data collected from surveys, interviews, and focus groups.[10]

The LCI evaluation team will prioritize the use of qualitative data collection instruments for examining the aspects of TCC that are particularly novel relative to other grant programs. Specifically, the LCI evaluation team will collect qualitative data about the rollout of the transformative plans and the collaborative stakeholder structure (see **Appendix 3** for a full list of members). For Round 1 sites, the LCI evaluation team will also collect qualitative data from residents of TCC funded affordable housing projects, which concentrate multiple GHG reduction strategies into a single location, and thus serve as a microcosm for the broader TCC program.

Communicating the Effects of TCC

During Round 2 of TCC grant implementation, the LCI evaluation team will release five annual progress reports that document the early effects of TCC investment. The first four progress reports will highlight findings from the LCI evaluation team's quantitative data collection. High-level findings from qualitative research activities will be summarized in the fifth annual progress report, once all qualitative data collection efforts have been completed.

To complement LCI's observations about the effects of TCC, each annual progress report also spotlights the perspectives of TCC project partners and beneficiaries. These perspectives are highlighted in the following chapter, entitled *Stories from the Community*. The individuals profiled in this chapter are recruited directly by TCC project partners and are interviewed by the LCI evaluation team. From these interviews, the LCI evaluation team develops two case studies per year about how the effects of TCC are being felt on the ground.

[10] See Section 3.3 of the TCC Round 1 Evaluation Plan for a summary of the timing, intent, and target population associated with each of these data collection instruments: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf (since the publication of the Round 1 evaluation plan, the LCI evaluation team has also committed to interviewing members of each TCC site's collaborative stakeholder structure on annual basis about implementation successes, challenges, and opportunities to improve the rollout of TCC in real world contexts)

Evaluation Activities Through June 2021

In the months after TCC grantees executed their contracts, the LCI evaluation team worked with the grantees to operationalize a number of indicator tracking protocols. Specifically, the LCI evaluation team developed reporting forms to streamline tracking activities and trained TCC project leads on how to use those forms. On an annual basis, TCC grantees complete and submit these reporting forms to the LCI evaluation team. Each submission reflects the grantee's activities during the previous fiscal year. Many of the key accomplishments described in this document are pulled directly from the grantees' reporting forms.

By the end of 2019, the LCI evaluation team completed baseline data collection for quantitative indicators. Findings from the baseline data collection process are narratively described in the final chapter of Green Together's first annual report, titled *Green Together: A Baseline and Progress Report on Implementation of the TCC Grant*. The underlying data for analyzing baseline trends are also included in Appendix 6 of this report, along with additional data that has been collected and processed within the past year. This Appendix will be updated annually through the release of the 2025 progress report.

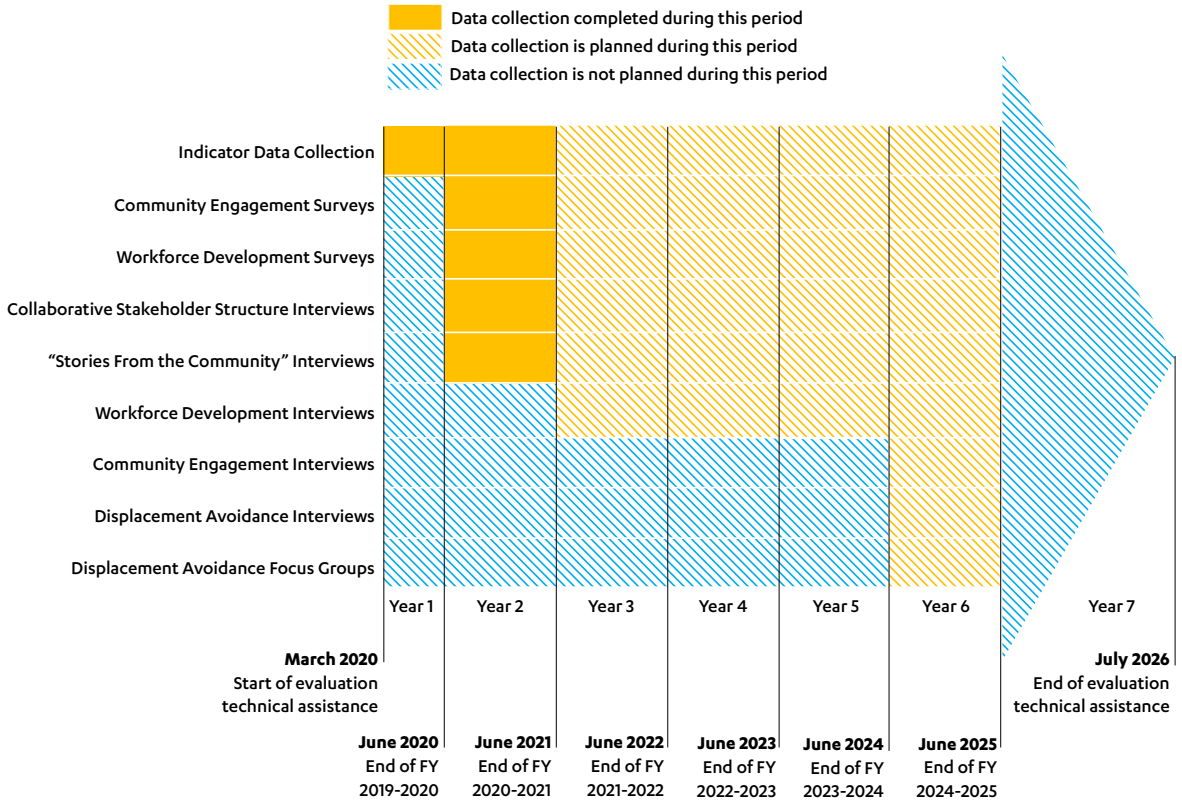
With respect to qualitative data collection, the LCI evaluation team has disseminated the community engagement and workforce development surveys to project partners. The surveys have been made available in both English and Spanish, and in print and online formats.

In the Northeast San Fernando Valley project area, community engagement surveys were disseminated at informational workshops about TCC projects. Workforce development surveys were disseminated at the beginning and end of GRID Alternatives training programs

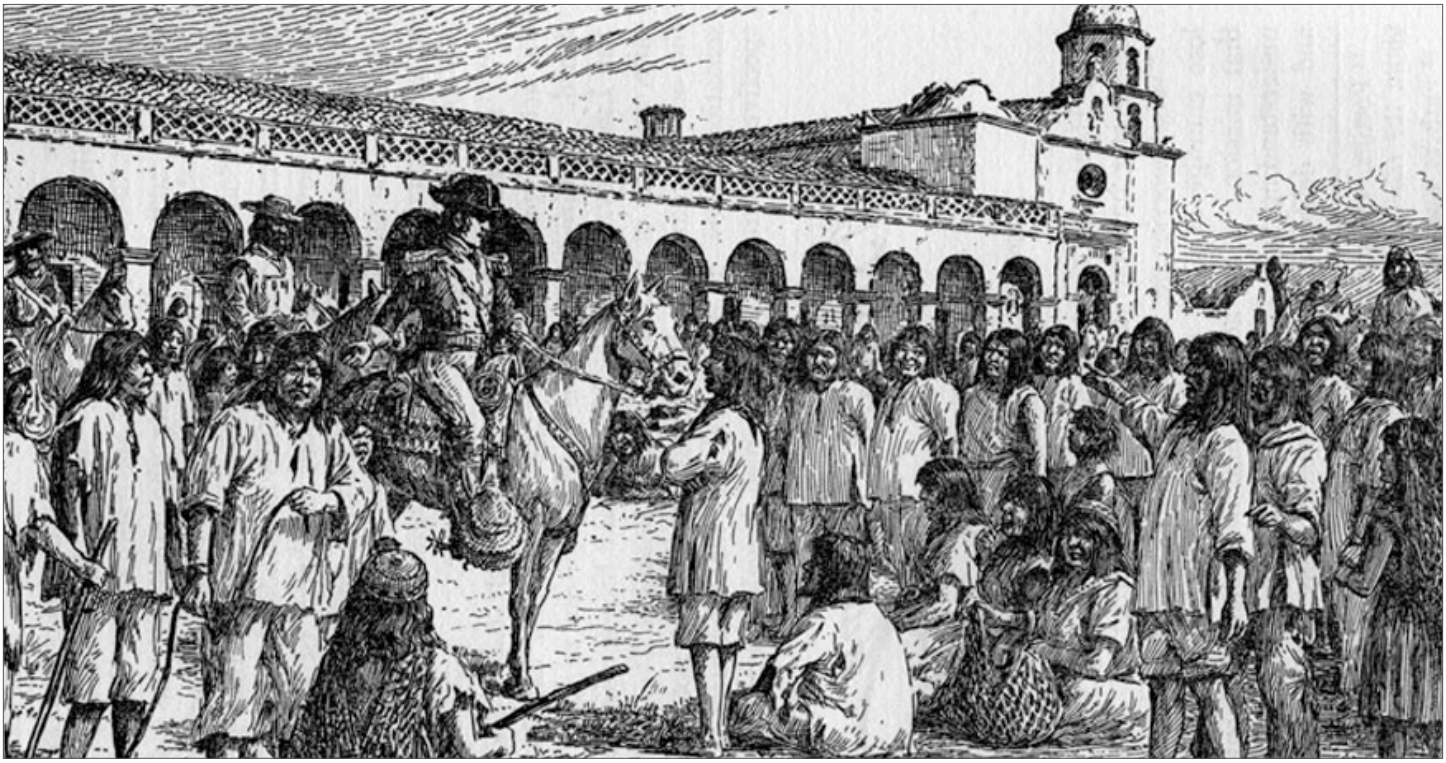
In addition to surveys, the LCI evaluation team has conducted interviews annually with members of the collaborative stakeholder structures, as well as select project beneficiaries (i.e., the subjects in the *Stories from the Community* chapter). Interviews with job training graduates and residents of affordable housing projects will ramp up in the coming year.

Figure 2 provides a summary timeline of data collection activities. The timing of pending activities is subject to change.

Figure 2. **Timeline of Data Collection Activities for TCC Round 2 Implementation Grants***



***Each "year" in the figure corresponds to a fiscal year (FY) rather than a calendar year.** Figure credit: UCLA Luskin Center for Innovation



In the 19th century, the Tataviam Tribe was forced to live at the San Fernando Mission under Spanish rule. Source: Pacoima Historical Society.

A Brief History of Northeast San Fernando Valley: The Legacy of Environmental Injustice

Located in the Northeast San Fernando Valley (NE Valley) in the City of Los Angeles, the Green Together project area includes part of the Pacoima and Sun Valley neighborhoods. The area is a vibrant, predominantly Latino immigrant community situated under the flight path of Whiteman Airport, at the intersection of multiple freeways, landfills, and industrial facilities that are a significant source of noise, greenhouse gas (GHG) emissions, and air pollution.

Pacoima is one of the most historic areas in the San Fernando Valley, with origins dating back centuries before Spanish colonization in the late 18th century. First inhabited by the Fernandeño-Tongva and Tataviam people, Pacoima was originally called Pakoinga, meaning "the entrance." The entrance is presumably to the Tujunga Watershed, which not only provided the Tataviam with water but also plants to build shelter. In 1769, the Spaniards occupied the San Fernando Valley, building missions to advance Christianity and forcing Native Americans to work for them to sustain their colonies. Eventually, the property controlled by the missions made them a target of Mexican republicans who demanded secularization. In 1834, half of all mission lands were transferred to local tribes, but distribution was uncoordinated. Many Native Americans were cheated of the land and left the area.

In 1887, Jouett Allen, a Southerner and lawyer, bought 1,000 acres of land between the Pacoima Wash and Tujunga Wash, creating the town of Pacoima. The land was developed as an exclusive community to attract wealthy settlers and correspond with the new Southern Pacific Railroad station. However, after a massive flood in 1891, Pacoima evolved into an agricultural community. In the early 1900s, political conflict in Mexico led many Mexicans to migrate to California, with some settling in Pacoima, one of the few areas people of color could purchase land due to racially restrictive covenants.

Many Japanese, attracted to agricultural opportunities, also migrated to the northeastern San Fernando Valley. They "were a major part of the California agricultural economy, growing various fruits, vegetables, as well as flowers." After the bombing of Pearl Harbor, Japanese residents were forced into internment camps and experienced extreme loss, including the lands they had cultivated. After World War II, many African Americans also moved to Pacoima as a result of being excluded from other neighborhoods. In the 1960s, almost all of the Valley's Black population lived in Pacoima because they were prohibited from buying or renting anywhere else.

In the late 1960s, immigrants from Mexico and Central America began to migrate to Pacoima due to inexpensive housing and nearby aerospace and automotive manufacturing jobs. Subsequently, there was a shift in the racial makeup of Pacoima as African Americans, who once represented the majority of the population, began to relocate. In the 1990s, Pacoima experienced deindustrialization, or the decline in industrial activity. As major manufacturing companies, such as Lockheed-Martin and General Motors, began to move out of the San Fernando Valley, so did the middle-class jobs and the families that they supported. As a result, unemployment escalated, along with the presence of gangs, leading to poverty, crime, and violence.

Today, approximately 100,000 people live in Pacoima, and over 80% of them identify as Latino. The neighborhood is composed of single-family homes, apartment complexes, and commercial and industrial use buildings. Instead of being contained, industrial uses are dispersed amongst residential areas. Many residents have formally or informally converted their single-family homes into multi-family units, contributing to an unseen density.

One of the main environmental concerns facing Pacoima is poor air quality. Because land use policy has been historically dominated by industrial uses, Pacoima and Sun Valley have some of the worst air quality and highest concentrations of polluting sources in California. The geography of the area, a valley, causes hazardous air pollutants, like ozone, to settle near ground level. Surrounded by the I-5, CA-118 and I-210 freeways, Pacoima also has a train track cutting through it, an airport that houses diesel-burning planes and helicopters, several active landfills, and multiple facilities that handle toxic chemicals. In addition to poor air quality, the neighborhood lacks green spaces and dedicated infrastructure for pedestrians and bicyclists.

In spite of these challenges, Pacoima has many community members dedicated to making the place a healthier and safer place to live. In 1996, a group of mothers created Pacoima Beautiful, a grassroots environmental justice organization, because they wanted to protect their children from pollution. In its early years, Pacoima Beautiful organized simple community clean-ups and tree plantings, but in the last two decades, it has expanded its scope to include policy advocacy, educational programs, youth engagement, and a community garden.

Some of Pacoima Beautiful's initiatives include: Clean Up Green Up (CUGU), Complete Streets, and the Pacoima Wash Vision Plan. CUGU works to establish "green zones," where land use policies that protect health would apply to any new businesses, and where existing businesses would receive assistance and incentives to adopt new technologies that reduce environmental harms. The goal of Complete Streets is to create streets that are safe for everyone and advocate for improvements to the neighborhood's street infrastructure. More green space is built through the Pacoima Wash Vision Plan, including multi-use paths for pedestrians, cyclists, and equestrians.

Despite decades of local grassroots activism to address community needs, residents continue to face many economic and health challenges, including high pollution burden, high rates of poverty and obesity, and early stages of residential and commercial gentrification. Climate change will likely exacerbate these challenges as Los Angeles becomes a hotter and costlier place to live.

Surrounded by the I-5, CA-118 and I-210 freeways, Pacoima suffers from poor air quality and high rates of respiratory problems. **Source: Google**

In 2020, residents and members of Pacoima Beautiful gathered to protest in front of an LADWP plant in Sun Valley that had been leaking methane. Source: CalMatters

Green Together: Looking Back and Forward

The NE San Fernando Valley TCC Implementation Grant is the result of years community engagement, strategic planning, and capacity building. This section provides a brief history of that work.[11]

Early Place-Based Planning Efforts

The NE Valley has been the focus of intense planning, pilot projects, and history of grassroots community organizing since the mid-1990s, particularly in the Pacoima neighborhood. The area experienced gang conflict that surged in the 1980s. Unprecedented levels of community activism, led by education, faith and community leaders, arose to counter the longtime war on the streets. From these efforts, five mothers who wanted to improve the community through beautification projects formed Pacoima Beautiful in 1996. Pacoima Beautiful is now a trusted partner in the community with over 10,000 members and continues to be the only environmental justice organization in the NE Valley. Pacoima Beautiful is the lead organization behind Green Together Network. In the past decade, Pacoima Beautiful has partnered with residents, public agencies, and other partners in the Green Together Network to successfully plan and implement several major place-based initiatives to beautify NE Valley.

The work specific to Green Together began in 2007 when Pacoima Beautiful led a coalition of community residents, public agencies, and environmentalists to reimagine the Pacoima Wash as a vital community asset. The reinvisioned tributary included improved wildlife habitats and providing access to new recreational amenities to create a healthier, more sustainable community. These efforts lead to the development of the 2011 Pacoima Wash Vision Plan funded through the Los Angeles County Department of Public Health by a competitive grant in 2008. The development of the plan included a multi-faceted outreach effort that included multiple focus groups, door-to-door knocking, and a mobile charette that gave participants the opportunity to walk alongside the Pacoima Wash, which is normally restricted to the public. Further visioning of the wash began in 2015 through the Pacoima Urban Greening Vision Plan with grants from the State's Strategic Growth Council (SGC) and the Santa Monica Mountains Conservancy in partnership with Kounkuey Design Initiative (KDI).

Green Together Begins

The result of all of these engagement efforts led to a suite of projects and plans developed for the TCC project based on community priorities identified through Pacoima Beautiful's decades of organizing. The projects and plans are aimed at reducing GHGs while also providing local environmental, health and economic co-benefits for residents of the NE Valley. Per the TCC guidelines for applicants, the Green Together proposal included the following elements: (1) TCC funded projects that have a direct impact on GHG reductions; (2) leveraged projects that further the broad goals of TCC and only use matching funds; and (3) transformative plans to ensure that the suite of projects are bolstered by meaningful community engagement, workforce development, and displacement avoidance activities. As a place-based initiative, Green Together proposed concentrating TCC dollars in a 4.86 square mile area of the NE Valley that includes central Pacoima and northern Sun Valley.

After its second attempt to receive TCC funding, in December 2018, Green Together was selected through a competitive grant process by SGC for a grant of $23 million to bring

[11] For additional background, refer to the Greenlining Institute's case study on the Northeast San Fernando Valley, entitled *Community-Controlled Solutions Built On Decades of Organizing,* available at: https://greenlining.org/wp-content/uploads/2021/11/Community-Controlled-Solutions-Built-Decades-Organizing-TCC-Case-Study.pdf

their vision to fruition. Green Together will also leverage at least $38.69 million in outside funds towards this vision. The TCC award not only brings a significant influx of financial resources to the community, but also reinforces the cross-sector partnerships that were built before and during the TCC application process. **Table 3** provides a summary of the Green Together projects, plans, and partners involved with implementation. **Appendix 1** provides a detailed map of where all of the TCC and leveraged projects are located within the TCC boundary area.

The next three sections of this report provide summary profiles on the various transformative plans, TCC funded projects, and leveraged projects that comprise Green Together. Each profile includes an overview of the project or plan's goals, the roles of various partners involved with implementation, and key accomplishments that have occurred following the announcement of Green Together's award through the end of FY 2020-2021. This period overlaps roughly with about one year of post-award consultation and one month of program implementation.

Table 3: Summary of Green Together Projects and Plans

Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Community Engagement Plan	N/A	Pacoima Beautiful	$1,930,002	$0
	Multi-Family Feed-in Tariff Program	Los Angeles Business Council	$429,000	$0
Displacement Avoidance Plan	N/A	Pacoima Beautiful	$0	$305,706
Workforce Development Plan	N/A	GRID Alternatives	$686,820	$0
Active Transportation	Pedestrian Mobility Improvements	The Trust for Public Land	$3,822,067	$0
Transit Operations	Pacoima DASH E-Bus	Los Angeles Department of Transportation	$2,513,000	$9,912,000
Low Carbon Transportation	Electric Vehicle Charging Stations	The Trust for Public Land	$459,173	$0
Rooftop Solar	Single-family Solar Photovoltaic Installations	GRID Alternatives	$4,702,495	$111,350
Urban Greening	David M. Gonzales Park Renovation	The Trust for Public Land	$2,269,939	$0
Urban and Community Forestry	Street Tree Planting	Los Angeles Conservation Corps	$2,895,311	$175,000
Leveraged Projects	Cool Roof Retrofits	GRID Alternatives	$0	$271,993
	Community Resiliency Center	GRID Alternatives	$0	$271,660
	Bradley Green Alley and Plaza Renovation	Trust for Public Land and Los Angeles Bureau of Sanitation	$0	$2,389,781
	East San Fernando Valley Transit Corridor	Los Angeles Metropolitan Transportation Agency	$0	$13,160,646
	Fernangeles Park Stormwater Capture	Los Angeles Department of Water and Power	$0	$8,426,000
	Green Streets	Los Angeles Bureau of Sanitation	$0	$3,665,000
Total**			**$19,992,809**	**$38,689,136**

*Project lead

**TCC funding total does not include additional grant money provided for grant administration and other related activities to Community Partners ($2,532,190.95), and required budget for indicator tracking and technical assistance ($475,000 for a seven year period) between the Grantee and University of California, Luskin Center for Innovation).

GREEN TOGETHER: STORIES FROM THE COMMUNITY

The Green Together Collaborative team celebrates their first in-person event with a Community Launch event, which coincided with the day Pacoima was annexed by the County of Los Angeles. Photo credit: Green Together Collaborative

AS A COMMUNITY-LED INITIATIVE, Green Together engages a wide variety of stakeholders. Residents, local business owners, workers, and others help implement projects to advance community-defined goals for climate action, economic development, and more. This chapter provides a series of case studies of how these stakeholders have contributed to the roll-out of Green Together and/or benefited from the initiative's suite of projects and plans. The case studies are provided in reverse chronological order in order to spotlight more recent additions to this annual report. It's important to note that these stakeholders represent only a small sample of the many individuals who have shaped—or been shaped by—the implementation of Green Together. Thus, their purpose is to be illustrative, but not exhaustive, of the ways in which Green Together has touched the lives of community stakeholders.

Building a Green Workforce

Corps members tie off a newly planted tree to provide added stability as it puts down roots in Pacoima in 2021. Photo credit: Los Angeles Conservation Corps

Background:

This case study explores how TCC dollars have helped Pacoima residents advance their career goals. The Los Angeles Conservation Corps offers paid work experience, on-the-job training, and federal, state, and industry recognized certifications. For more information about related projects, page 38 covers the larger Workforce Development Plan and page 50 summarizes the Urban and Community Forestry Project.

Interviews for this story were conducted in September and October 2021

DULCE ROSALES is 23 years old and lives in Pacoima with her four year old son. She is part of the LA Conservation Corps (LACC), which offers paid work experience, educational opportunities, support services, and job skills training for young people working on the TCC funded Street Tree Planting project.

As a resident of Pacoima since 2016, Rosales has first hand experience knowing that her community lacks the abundance of shade trees found in other more leafy, affluent parts of Los Angeles. She sees tangible impacts stemming from her work as a LACC Corpsmember: "The trees we plant through the TCC project will really cool down the city."

Seeing the benefits of her work in the neighborhood makes the job very fulfilling. "It's not just something I'm doing 9-5 to make money," she says. "It's affecting my community directly. That's what I love about it and why I'm sticking with it."

Before joining LACC, Rosales reported struggling to find satisfying work because she felt that she lacked experience and skills. The program brought her out of her comfort zone while building her resume and skills in everything from how to wield a shovel and weed wacker to communications and writing skills, for instance.

Photo credit: Los Angeles Conservation Corps

Rosales says that LACC's resources gave her the confidence and flexibility to go to school and work. Rosales is now also enrolled in a medical phlebotomy program to further her goal of supporting the health of her neighbors.

"My job is not just something I'm doing 9-5 to make money. It's affecting my community directly. That's what I love about it and why I'm sticking with it."

DULCE ROSALES

Photo credit: Los Angeles Conservation Corps

JAVIER HURTADO is 23-years-old and has lived with family in a close-knit neighborhood of Pacoima for 12 years. In high school, Hurtado struggled to manage work and school, and he chose to prioritize work. But without a high school diploma, he found his job options limited. Joining LACC's job training program provided several opportunities.

"When the pandemic started, it was really hard to find work. LACC scheduled me for an interview the same week that I contacted them about a job. The staff helped me throughout the whole application, interview, and orientation process."

Hurtado has since completed LACC's extensive horticultural training, which covers site selection, planting, and caring for new trees. Hurtado works in a team of four, and together they plant roughly eight trees a day. Hurtado estimates that he has personally planted more than 100 trees in his year with the program.

Hurtado reports that the work with LACC gives him far more satisfaction than his previous role at a fast food restaurant. The camaraderie and respect on his team were a welcome change. He also reports getting positive feedback about the program from community members who ask: "Are you going to plant more? Can we get more trees?"

In addition to better working conditions, LACC helped Hurtado achieve one of his long-standing goals – to get his GED. "I'm trying to get as much out of this training as I can," says Hurtado. "I already got several certifications. Next I want to get my driver's license and earn a solar installation certification."

Since this interview, Hurtado has been hired by the California Conservation Corps and is doing work in Lake Tahoe.

"When we're out working, community members ask if they can get more trees"

JAVIER HURTADO

Clean Air Ambassadors Use Data to Advocate for Healthy Air

Background:

This case study demonstrates how Green Together's strategy for community engagement leverages Pacoima Beautiful's existing programs like the Youth United Towards Environmental Protection (YUTEP) club described on the next page. The approach has empowered resident leaders to take on greater roles of public influence by strengthening their communication skills, climate literacy, and relationships with projects partners.

Interviews for this story were conducted in August and September 2021

Pacoima Beautiful's inaugural class of Clean Air Ambassadors, 2021. Photo credit: Pacoima Beautiful

HUONG TRAN attends high school with her friends in Sun Valley and is an active member of Pacoima Beautiful's Youth United Towards Environmental Protection (YUTEP) club. Through YUTEP, Huong serves as a paid Junior Field Manager as well as a volunteer for Pacoima Beautiful's COVID-19 vaccine program and community greening activities. Huong learned about the Clean Air Ambassador program from YUTEP. Her curiosity to learn about ways to help the community motivated her to participate in the Clean Air Ambassadors training.

Through the training, she collected air quality data in Panorama City, and compared her data to that from Pacoima, Sun Valley, and North Hollywood. "I didn't know how bad the air quality was and I wanted to know more about how I could help because I know air quality can affect your health just as bad as smoking," said Huong. As a Clean Ambassador, she now understands the basics of air quality and its impact on community health. Huong credits the program with teaching her about technologies to monitor air quality, how to analyze data and communicate her results, and ways to improve her public speaking skills. While COVID-19 made it difficult to interact with other participants, she developed a deeper relationship and trust with Pacoima Beautiful staff and feels more tied to the organization. Huong plans to be a psychologist or nurse and continue to be involved in environmental projects as a hobby.

Huong Train, picks up her air quality monitoring tools before beginning the Clean air ambassador program.
Photo credit: Pacoima Beautiful

> **"I didn't know how bad the air quality was and I wanted to know more about how I could help because I know air quality can affect your health just as bad as smoking."**
>
> HUONG TRAN

Jenifer Fonseca walking through Pacoima with an air quality instrument hooked to her side. Photo credit: Jenifer Fonseca

JENIFER FONSECA is a high school student in Sun Valley and is completing her senior community service with Pacoima Beautiful's youth organization (YUTEP). Launched in 2002, YUTEP recruits students from local middle and high schools to participate in campus-based clubs. The youth meet weekly to increase awareness of environmental issues, participate in public service projects, develop leadership skills, and prepare for college. Jenifer first learned about the Clear Air Ambassador program from YUTEP.

Jenifer completed the Clean Air Ambassador program by collecting air quality data in North Hollywood. She acquired analytical skills to compare and contrast pollution levels in North Hollywood, Panorama City, Pacoima, and Sun Valley. Jenifer identified air quality disparities between the neighborhoods, with North Hollywood having fewer spikes in particulate matter. As an Ambassador, she feels equipped to use data to convey the air pollution challenges the community is facing. She also enjoyed the intergenerational learning and community-building opportunities offered by the program. Jenifer aspires to attend UCLA and become a neonatal nurse. She is excited to add her new skills in data collection and analysis, creating presentations, and public speaking to her resume.

"Data is key to getting our point across about air quality issues in the community... the air monitoring made me open my eyes. I didn't know about how bad air quality is in Pacoima and Sun Valley."

JENIFER FONSECA

OSCAR BARCENA was born and raised in Pacoima to parents who emigrated to the neighborhood in search of a better life. During high school, Oscar participated in Pacoima Beautiful's youth leadership program. The program introduced him to the environmental justice issues affecting the Northeast San Fernando Valley. Working with other youth leaders to propose solutions, Oscar became aware of the importance of community learning and the capacity to advocate for a healthier community.

"There's a lot of environmental issues and projects that we don't ever see or know about, becoming a Clean Air Ambassador was my way to have that veil lifted."

OSCAR BARCENA

Years later, Oscar who now holds a Master's degree in business administration and works for LA Metro, was inspired to become a Clean Air Ambassador. He is part of the inaugural cohort of Green Together's Community Academia also developed by Pacoima Beautiful, the Clean Air Ambassador program is an innovative part of the TCC Community Engagement Plan that recruits and equips residents to advocate for a healthier community. Ambassadors meet

Oscar Barcena exercising near Hansen Dam in Pacoima.
Photo credit: Oscar Barcena

for 13 sessions and are trained to use scientific equipment to measure particulate matter (PM) pollution in the TCC area and surrounding neighborhoods. Ambassadors learn to interpret the data, communicate about air quality, and advocate for data-informed clean air solutions. The most important elements of the program for Oscar are the relationships developed with other residents and Pacoima Beautiful staff, the opportunity to continue learning about the health issues confronting Pacoima, and the possibility of influencing other local projects.

Climate Planning and Community Engagement From the Ground up

Background:

This case study spotlights how TCC funding has supported deep community engagement work in the Northeast San Fernando Valley. Specifically, the case study looks at the work of three individuals who are funded by TCC to serve as resident leaders. Maria Madrigal, Sofia Maldonado, and Victor Sanchez have built on their past work with Pacoima Beautiful to help implement the Community Engagement Plan, detailed on page 34.

Interviews for this story were conducted in March 2021

Pacoima Beautiful's Community Inspectors in the community, 2019. Photo credit: Pacoima Beautiful

MARIA MADRIGAL is a longtime Sun Valley resident turned resident leader. Maria has lived in the community for over 34 years and for the past 3 years she has been part of Pacoima Beautiful's Community Inspectors program. She joined the program to keep active during her retirement years and make a difference in her community. Through the program, Pacoima Beautiful recruits and equips residents to become community leaders and advocates for social change using a "train-the-trainer" model. Inspectors identify toxic sources of pollution, opportunities for beautification, and teach other community members. Inspectors played a critical role in the process for developing the TCC proposal.

"I have gone through the solar roof process. Once the neighbors see [the solar roof], I can inform them about the program."

MARIA MADRIGAL

Maria meets with other Community Inspectors once a week to discuss environmental issues in the community, engage in public service projects to raise environmental awareness, and develop leadership skills by creating and advocating for community-led solutions. As a response to COVID-19, Maria is now learning to use new technologies, such as video and web conferencing, to master different ways to engage with residents. She is also learning about solar energy, the benefits of solar roofs, and how to qualify for the TCC-funded rooftop solar installations. Using her new skills and social networks, Maria is excited to assist with implementing Green Together's Community Engagement Plan and outreach for the Solar Roofs project.

Maria Madrigal at the weekly Community Inspectors meeting discussing community priorities, 2017. Photo credit: Pacoima Beautiful

Sofia Maldonado at the monthly food swap in 2019 where she'll be sharing about TCC. Photo credit: UCLA Luskin Center for Innovation

"I explain the benefits of programs like solar training with other moms... to encourage their children to take advantage of these trainings because it has benefited my son"

SOFIA MALDONADO

SOFIA MALDONADO is another Community Inspector that will play a pivotal role in implementing Green Together's Community Engagement Plan. Maria has been working with Pacoima Beautiful since 2008, first as a volunteer and then as a paid Community Inspector. She emigrated from Mexico 32 years ago to Pacoima with her children. She became involved with Pacoima Beautiful as a single parent looking for resources to help her children succeed in school and stay out of gangs. Through her involvement with the organization, she became aware of environmental burdens her community faces and decided to continue to fight for the health of the community and her children.

Sofia is most proud of two projects she has been able to accomplish through her activism. The first is the installation of speed bumps near her home. The second is the installation of a traffic light near a local high school after witnessing a few accidents that put children in harm's way. She gathered over 500 signatures and went through what she describes as a long and difficult process to reach her goal of a new street light. Sofia is excited to put her leadership skills to use, continue knocking on doors, and sharing her family's firsthand experience about the economic benefits her son received in previous solar training efforts in the community, which will be replicated as part of Green Together's Solar Roofs project.

VICTOR SANCHEZ is part of Pacoima Beautiful's Youth United Towards Environmental Protection (YUTEP) environmental club, launched in 2002. Students from local middle and high schools are recruited through student campus-based clubs to participate in the program. The youth meet weekly to increase awareness of environmental issues, participate in public service projects, develop leadership skills and prepare for college. As with the Community Inspectors program, participants in YUTEP become core leaders of the organization and community engagement efforts and will play a key role in Green Together's community outreach activities.

Victor joined the YUTEP in 9th grade. Now in high school, age 16, he has developed the confidence to speak at public meetings, organize and lead community meetings and engagement efforts. By participating in paid internship opportunities such as the Future Rangers Program and certification courses like the California Naturalist training, Victor has decided to pursue a career in the sciences and hopes to design electric cars and to promote clean energy. He looks forward to new and rewarding opportunities to involve the community in TCC engagement efforts, making good connections, and seeing what the community can accomplish together.

Victor Sanchez at John Francis High School during community engagement event, August 2019. Photo credit: Pacoima Beautiful

"As an environmentalist, I like seeing my community contributing to resolve issues around climate and the environment. I like the community pride...we make projects our own and have a sense of community."

VICTOR SANCHEZ

PROFILES:

TRANSFORMATIVE PLANS

Community members attend a Green Together event at Bradley Green Alley in October 2020. Photo credit: Pacoima Beautiful

THE COUPLING OF TRANSFORMATIVE PLANS alongside GHG reduction projects is one of the central elements of the TCC that separates it from all other California Climate Investments. For Round 2 of TCC, applicants were required to develop three transformative plans: a community engagement plan, workforce development plan, and displacement avoidance plan. Together, these three plans are designed to ensure that TCC investments reflect the community's vision and goals, bring economic opportunities to disadvantaged and low-income communities, and minimize the risk of gentrification and displacement of existing residents and businesses. Applicants were provided a menu of strategies for developing their plans and encouraged to choose those that spoke to the site's priorities and strengths. The following section provides an overview of how Green Together structured their three transformative plans and what progress has been made towards plan implementation.

Community Engagement Plan

Pacoima Beautiful staff member speaks with community members at Green Together Launch, May 2021. Photo credit: Pacoima Beautiful

NORTHEAST SAN FERNANDO VALLEY YOUTH, RESIDENTS, AND BUSINESSES are involved in the planning, implementation, and governance of Green Together and the initiative's various projects supported by the TCC grant. The Community Engagement Plan (CEP) leverages two decades of community-led planning efforts ushered by Pacoima Beautiful, one of Green Together's lead grantees. The many partnerships formed between Pacoima Beautiful, local nonprofits, project area residents, and business leaders through a variety of planning and visioning efforts that began in 2007, and resulted in the Pacoima Wash Vision Plan and the Pacoima Urban Greening Plan. This represents a decade of meetings, neighborhood canvasing, mobile charettes, site visits, and relationship building specifically to identify, describe, and strategize about the community's needs to inform future planning efforts such as TCC Green Together. Pacoima Beautiful will collaborate closely with Green Together partners to lead engagement efforts across all projects and the transformative plans. The new Green Together Resource Center and a new website will serve as the hubs of information and activity encompassing all aspects of the TCC project. The Green Together CEP has two components, one focused on general engagement for all TCC activities and a second related to climate change education.

Recent Accomplishments*

- **2 presentations on TCC projects at community meetings**
- **Knocked on 367 doors to engage residents in displacement avoidance outreach activities**
- **2,400 stakeholders engaged through social media and direct mail**

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

General Engagement Strategy

Green Together's general strategy for engagement across all TCC activities includes a layered approach:

1. Utilize a team of dedicated staff organizers, volunteer community inspectors, and youth organizers, to engage and inform stakeholders and residents;
2. Focused outreach on hard-to-reach residents by making meetings ADA accessible, providing Spanish translation, hosting during a range of hours that work best for the community, and by offering child care;
3. Facilitate community participation by prioritizing interactive engagement, including charettes, door-to-door knocking, and surveys; and dotmacracy and social media to reach younger residents;
4. Engage residents through traditional public workshops and meetings, and leverage existing community meetings, such as public school parent centers and the local neighborhood watch, often held in residents' houses.

Climate Education Engagement

Green Together will offer climate change education via two approaches:

1. Community survey data collection and education workshops on air quality and temperature monitoring with faculty experts at two regional universities, UCLA and the University of Southern California (USC);
2. Education on solar technologies, including solarthons and webinars focused on developing a feed-in tariff program for multi-family units (M-FiT) led by the Los Angeles Business Council.

Governance Model

Green Together has established a collaborative model to provide oversight over implementation of the TCC grant. The governance model includes three components:

1. Green Together Steering Committee is responsible for implementation of all activities and is convened monthly by the grantee, Community Partners. The committee reserves a permanent seat for Pacoima Beautiful, who supports all outreach efforts, as well as one rotating seat that each partner holds for one year (see Appendix 3 for a list of partners);
2. Leadership Council will provide input on every aspect of the implementation process. Council members will be selected through a public nomination process. Members will include two neighborhood residents, two local business owners, two non-profit organizations, two anchor institutions, two community leaders, and a local elected official. The Council will be convened on a quarterly basis by Pacoima Beautiful.
3. Displacement Avoidance Plan (DAP) Committee will be comprised of two task-forces, one focused on housing and another on businesses. The task-forces will convene stakeholders, academic experts, elected officials, local government agencies, and residents biannually and convene together as a committee annually.

Community Engagement Plan

Project Details

» Launch date: May 2020
» Anticipated completion date: March 2026
» Project lead: Pacoima Beautiful
» TCC grant funds: $1,930,002
» Leveraged funds: $0

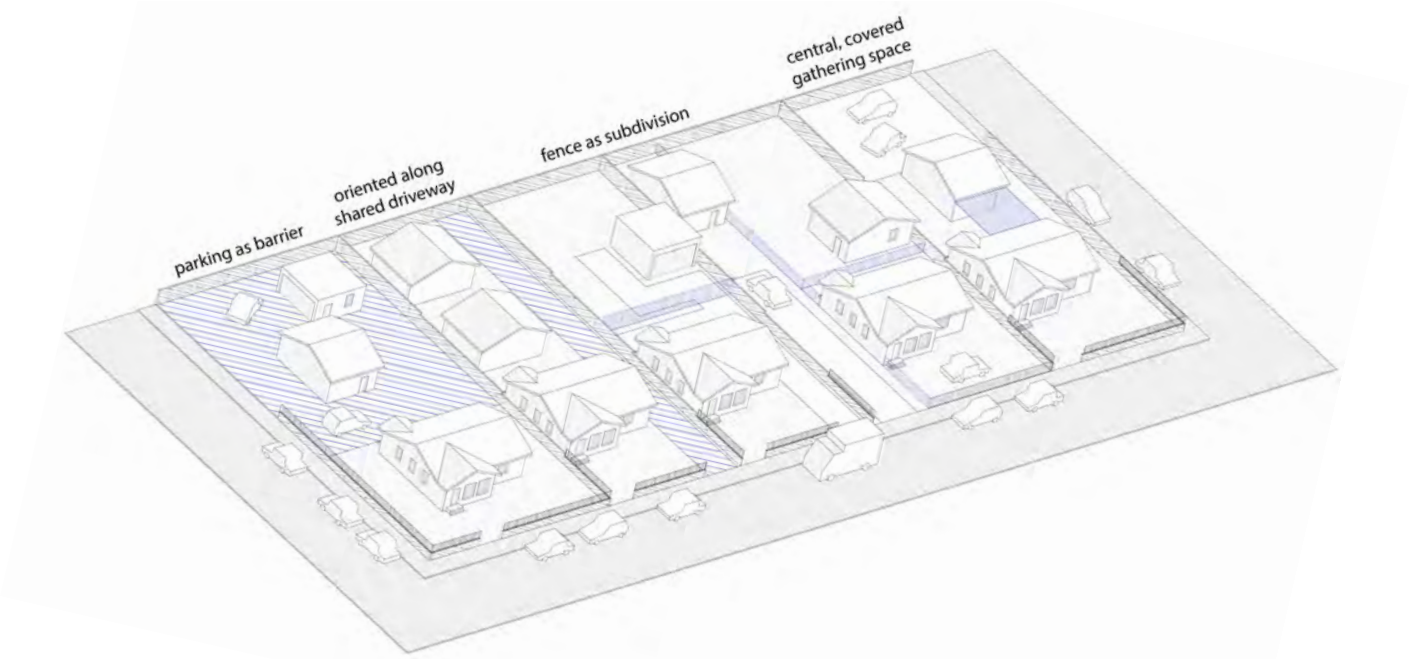
Progress Through FY 2019-2020

» Formed the Green Together Steering Committee governance body, which has met monthly since March 2019
» Presented TCC projects at four community meetings, including Pacoima Beautiful's monthly meeting attended by 57 residents to discuss the rail leveraged project
» Knocked on 235 doors and engaged at least 185 adult and youth residents in displacement avoidance activities
» Hired outreach team and TCC coordinator
» LABC conducted survey, identified nine possible M-FiT project sites

Responses to COVID-19

» All in-person events moved to virtual environments after May 2020 stay-at-home order was issued
» To reach older community members with limited access or knowledge of computers, Green Together first relied on mailing and flyering, then social media with Pacoima Beautiful equipping members to participate.

Displacement Avoidance Plan



Types of accessory dwelling units identified by UCLA research in June 2019, highlighting the importance of this culturally relevant affordable housing option in the community. Photo credit: Cate Carlson, Thomson Dryjanski and Michael Peterson, UCLA

GREEN TOGETHER'S DISPLACEMENT AVOIDANCE PLAN (DAP) weaves together a number of strategies towards the dual purpose of protecting and encouraging a growth in the supply of culturally relevant affordable housing in the TCC project area, as well as protecting the tenure of residents and small businesses already located in the community. These strategies include extensive community-based research to understand the short and longer-term needs of local residents and businesses in order to offer targeted workshops, trainings, and other resources. Research from UCLA has identified the TCC project area is vulnerable to residential and commercial gentrification. The approaches outlined in the DAP are aimed at addressing the indirect effects of TCC investment that may lead to displacement by raising the value of residential and commercial land. It is important to note that none of the Green Together's TCC funded activities will directly cause residential or business displacement as activities will occur within the public right-of-way. However, the East San Fernando Valley Transit Corridor leveraged project will partially or fully acquire a handful of residential and commercial properties in the area. DAP activities will be held at the Green Together Resource Center developed as part of the Workforce Development Plan.

The Green Together DAP is led by Pacoima Beautiful in consultation with expert economic development consultants, researchers at the UCLA Center for Neighborhood Knowledge, and faculty at the UCLA Department of Urban Planning. The DAP also incorporates extensive community engage-

Recent Accomplishments*

In 2021, Pacoima Beautiful and a UCLA team developed:

- **14 white papers on planning topics relevant to DAP**
- **3 research projects presented to local stakeholders: Strategies To Help Pacoima Small Businesses Thrive, A Business Displacement Avoidance Plan; Formalizing ADU's in Pacoima; Climate Resilient Infrastructure, Incremental and Scalable Projects**
- **110 surveys distributed to assess business needs and concerns with displacement**
- **20 survey responses received from local businesses**

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

ment, a train-the-trainer approach to resource delivery, and a stakeholder engagement process through a DAC Advisory Committee. Pacoima Beautiful uses the train-the-trainer model to build community capacity to advocate for planning and policy change. The DAP Advisory Committee comprises of two task-forces, housing and business, that will inform the Green Together Steering Committee of any displacement pressures related to TCC activities. The Green Together DAP focuses on the displacement avoidance strategies outlined next.

Residential Anti-Displacement

1. In order to promote the production and protection of affordable housing options, Green Together will conduct a Community Land Trust (CLT) feasibility study to gauge community interest in this form of land tenure;
2. In order to promote the production and protection of affordable housing options, the DAP includes data gathering activities on the prevalence of accessory dwelling units (ADUs) in the project site to inform the development of a legalization action plan;
3. To help protect the tenure of existing residents, the Green Together will monitor gentrification in the project site, as well as conduct surveys and focus groups to understand tenant/landlord relationship. These activities will inform the design an implementation of culturally relevant tenant protection support services such as legal "charlas" (talks) and tenant right workshops.

Business Anti-Displacement

To protect small businesses from displacement, Green Together will implement the following three policies in consultation with the DAP Steering Committee Business Task-force:

1. Conduct research to create an inventory of small business development programs available to local businesses as well as door-to-door surveys to understand the needs and challenges facing businesses in the project area;
2. Increase the visibility of small business assistance programs by hosting annual business workshops on financial assistance, state environmental compliance, commercial tenant protection rights, and Metro's business interruption;
3. Support alternative business models through creative capital to further strengthen local artists and the visual voice of the community, the DAP will do the following: a) Identify creative capital, professional development, and technical assistance opportunities for the local artist community; b) develop a weekend technical assistance workshop; c) host technical assistance workshop focused on the business needs of the artist community; d) Provide referral support and follow-up to artist that participate in workshop.

Displacement Avoidance Plan

Project Details

» Launch date: January 2019
» Anticipated completion date: March 2026
» Project lead: Pacoima Beautiful
» TCC grant funds: $0
» Leveraged funds: $305,706

Progress Through FY 2019-2020

» Conducted a Community Land Trust feasibility study, including land use analysis to identify suitable properties, a review of best practices, and interviews with 16 residents to understand under what circumstances owners would sell or lease land for CLT with ADUs;
»» Conducted ADU study on prevalence and challenges of owning and living in ADUs, including community survey of 96 residents, one in-depth case study, one focus group with four youth, six interviews with tenants and four financing experts, and 196 visual observations;
»» Conducted ADU tenant rights study to gauge knowledge about tenant rights, living conditions, and relationships between tenants and landowners by participating in three community meetings and conducting 11 informal focus groups with 21 resident
»» Interviewed seven businesses to understand their needs.

Responses to COVID-19

» All in-person events moved to virtual environments after May 2020 stay-at-home order was issued

Workforce Development Plan

GRID Alternatives solar installation trainees in Los Angeles. Photo credit: GRID Los Angeles

GREEN TOGETHER'S WORKFORCE DEVELOPMENT PLAN (WDP) identified four workforce development program goals for project area and nearby residents: (1) increase social equity and economic opportunities; (2) create high-quality jobs that lead to permanent career pathways; (3) foster inclusive economic development for workers, businesses and local economy through a robust business retention and enhancement of the Clean-up Green-up Initiative, a local ordinance aimed at lessening cumulative health impacts from incompatible land uses in communities affected by a concentration of environmental hazards; and (4) support equity and opportunity by engaging with the DAP Business Task-force activities, when appropriate. To achieve these goals, Green together will develop a workforce development program in the project area that connects residents of Pacoima and Sun Valley with a job training and employment opportunities with clear pathway for high-quality jobs in the green building and solar industries. The skills gained by participants will prepare them for jobs in solar panel installation and energy auditing, as well as provide a foundation for jobs in the manufacturing and recycling sectors.

Recent Accomplishments*

» **Officially launched the workforce development program after a pause in program operations due to safety precautions taken because of COVID-19 pandemic**

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

Workforce Development Strategy

GRID Alternatives and the Los Angeles Conservation Corps will oversee the suite of workforce development program activities in the project area, with targeted outreach assistance from Pacoima Beautiful. Through this program at least 146 community members will receive training and job placement support through two opportunities:

1. LACC will offer paid work experience on urban forestry project followed by brownfields remediation job skills training that result in 50 opportunity youth program participants receiving federal, state, and industry recognized certifications. Youth will receive paid work experience and on-the-job training for TCC funded Street Tree Planting and Pedestrian Mobility projects.
2. GRID Alternatives will recruit at least 96 adults from the project or nearby area to receive a solar installation basics training, targeting women, veterans, and justice-involved reentry residents. Industry recognized certification will be provided to participants that complete the 12-week, 250 hours program. Participants will receive job training through the TCC funded Single-Family Solar Installations project.

Targeted Recruitment Strategy

GRID's and LACC's targeted recruitment strategy focuses on low-income residents, women, veterans, re-entry citizens, youth and residents that may be impacted by project development. The recruitment strategy benefits from long-standing relationships with community groups, such as Pacoima Beautiful, public agencies that provide referrals, connections with vocational training schools and community colleges, and veteran, youth and reentry-focused organizations. Between 30-40% of youth trainees in LACC's program will be residents from the project area. A minimum of 60% of trainees in GRID's solar training program will be residents from the project area

Strategy for Connecting Residents to Skilled Employment

To ensure that existing workforce programs and new TCC workforce opportunities reach residents of the TCC project area specifically, the WDP will rely on three strategies:

1. Use leveraged funds to create a Green Together Resource Center. The Resource Center will be a staffed one-stop-shop near a major commercial corridor in Pacoima. The Resource Center will serve as the hub for residents to learn about training, recruitment, and job opportunities on TCC funded projects.
2. All participants that complete the training will receive tool kits and belt at completion ceremony, job search support,including leads, resume building, interview coaching, and interview clothes (leveraged) through the Resiliency Center.
3. Program completers will be connected with partner employers through hiring days and two career fairs organized by GRID, as well as the local Work Source Center, and through partnerships with a local staffing agency, a local unions, contractors working on large-scale projects, and the City of LA Personnel Department to place graduates in city jobs.

Displacement Avoidance Plan

Project Details

» Launch date: May 2020
» Anticipated completion date: March 2026
» Project leads: GRID Alternatives and Los Angeles Conservation Corps
» TCC grant funds: $0
» Leveraged funds: $686,820

Progress Through FY 2019-2020

» Began recruitment plan development
» Began training plan development
» Established location of Green Together Resource Center

Responses to COVID-19

» All in-person events moved to virtual environments after May 2020 stay-at-home order was issued

Green Together project members present "Beat the Heat," a mural located at Fernangeles Elementary School, created by artist Kristy Sandoval in partnership with researchers from the UCLA Luskin Center for Innovation. The mural uses a solar reflective coating that reduces surface temperatures up to 30%. **May 2021. Photo credit: Pacoima Beautiful**

TCC APPLICANTS CHOSE FROM A WIDE ARRAY OF PROJECT TYPES in their effort to achieve the three objectives of TCC, namely: (1) reductions in GHGs; (2) improvements in public health and environmental benefits, and (3) expanded economic opportunity and shared prosperity. These project types align with the suite of California Climate Investments overseen by various state agencies.[12] This alignment was built into TCC to streamline the proposal and indicator tracking process. For example, the California Air Resources Board (CARB) has developed GHG reduction quantification methodologies and co-benefit assessment methodologies for each project type under the existing suite of California Climate Investments. These methodologies can then be used by TCC grantees (and technical assistance providers, such as the UCLA evaluation team) to estimate the benefits of each project. The following section provides an overview of the Green Together projects, aggregated by project type, that will be using TCC dollars to achieve the aims of the program.

[12] **For more information about California Climate Investments, visits: http://www.caclimateinvestments.ca.gov/**

Active Transportation Project

Pedestrian green street vision as part of the 2015 Pacoima Urban Greening Vision Plan funded by SGC. Photo credit: LA Más

THE ACTIVE TRANSPORTATION PROJECT , known locally as the pedestrian mobility improvement project, aims to reduce vehicle miles traveled (VMT) in passenger vehicles by improving mobility options for pedestrians, bicyclists, and transit riders to access key destinations in and outside of the TCC project area. The project is led by the Trust for Public Land (TPL) and will focus on pedestrian improvements and creating 4 mobility hubs on major intersections in the project area. The project will install critical pedestrian infrastructure on 2.4 miles of northeast-southeast residential streets Herrick and Haddon Avenues, located between the Van Nuys business district and the future Pacoima Wash Greenway. These improvements will be branded as "mobility hubs". The streets will provide a slow, locally-serving network facilitating safe and attractive connections between homes, schools, parks, shopping and local employment centers. Pacoima Beautiful will assist TPL in soliciting community feedback on designs. Trees will be planted in coordination with the Street Tree project.

Recent Accomplishments*

- Conducted extensive cross-agency coordination activities, including 8 meetings and 1 project site walk;
- Gathered community input at in-person community event at Pacoima City Hall in May 2021
- Developing MOA between the Trust for Public Land (TPL) and Streets LA's Design-Build group for both design and construction

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

The flexible and engaging neighborhood mobility hubs will also include space for innovative transit companies to park their zero-carbon vehicles and EV charging infrastructure, as described later in the TCC-funded Electric Charging Stations Project. The mobility hubs will be located at key community anchors within walking distance to activity centers, transit stations, places of employment and residence.
A stretch of Herrick Ave was chosen for pedestrian improvements because it passes by six schools, the David M. Gonzales Park funded project, the Van Nuys Blvd business district, and provides an important link across the Pacoima Wash to the City of San Fernando. It is also a popular route for residents of San Fernando Gardens, a large multi-family public housing complex located nearby. Specifically, the Pedestrian Mobility Improvement Project includes the following upgrades along the 2.4 miles of streets that are part of these mobility hubs:

» 900 ft of new sidewalks as well as 5 way-finding signs, 10 ADA ramps for individuals with limited mobility, 10 bicycle sharrows, 3 high visibility crosswalks;

» Site amenities at the mobility hubs also include improved signage, 4 bike parking areas, 5 areas for seating, and 3 public art murals; and

» EV charging infrastructure.

Other estimated co-benefits over the project lifetime are detailed below.

Pedestrian Mobility Improvements

Project Details

» Launch date: May 2020

» Anticipated completion date: April 2025

» Project lifetime: 20 years

» TCC grant fund: $3,822,067

» Leveraged funds: $0

» Project lead: The Trust for Public Land

Estimated Lifetime Benefits

» GHG emissions reductions: 47 MTCO2e

» VMT Reductions: 121,557 miles

» Travel cost savings: $70,503

» Direct jobs from TCC dollars: 17

» Indirect jobs from TCC dollars: 7

» Induced jobs from TCC dollars: 13

Progress Through FY 2019-2020

» Began cross-agency coordination activities

Responses to COVID-19

» All in-person outreach activities moved to virtual environments after May 2020 stay-at-home order was issued in Los Angeles County.

» COVID reduced staff capacity at the Los Angeles City Recreation and Parks Department, leading to a delayed approval of park sites as viable locations for EV charging stations.

Transit Operations

BYD Inc. DASH E-bus manufacturing for LADOT in Lancaster, California, August 2020. Photo credit: LADOT

GREEN TOGETHER'S TRANSIT OPERATIONS PROJECT, known locally as the Pacoima DASH E-Bus Project, leverages TCC funds and other public dollars to electrify the DASH bus fleet that travels through the Pacoima neighborhood in the project area.. The project is lead is the City of Los Angeles Department of Transportation (LADOT) with community outreach support from Pacoima Beautiful. The DASH bus is a frequent, inexpensive and convenient bus service designed to connect City of LA neighborhoods to regional services but the program has historically undeserved the Pacoima area. In addition to electrification of current buses, the project installs electric vehicle chargers and couples these investments with increased bus service through a new E-DASH bus route. The new route was developed with community input and will connect higher density residential areas with major shopping complexes, schools and medical care facilities. LADOT projects the new route will increase DASH ridership by 90% in the project area.

Recent Accomplishments*

- LADOT has signed a contract with the bus manufacturer, BYD Motors Inc.
- 14 buses are currently being manufactured

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

It is important to note that the Pacoima DASH E-bus project will not impact fare structures. The investment is aimed at improving transit ridership and reducing vehicle miles traveled (VMT) with transit routes that better respond to the community's needs. The TCC funding will provide the incremental cost of upgrading from a compressed natural gas (CNG) bus to a battery-electric bus achieving meaningful reduction in GHG emissions and improvement in air quality in this impacted community.

Specifically, Green Together's Pacoima DASH E-bus Project includes the following:

» 14 new battery-electric buses;

» 7 electric chargers;

» 1 new DASH e-bus route servicing the Pacoima neighborhood; and

» 45 new DASH E-bus stops along the new route.

Other estimated co-benefits over the life of the project are detailed in the table below.

Pedestrian Mobility Improvements

Project Details

» Launch date: May 2020

» Anticipated completion date: December 2022

» Project lifetime: 12 years

» TCC grant funds: $2,513,000

» Leveraged funds: $9,912,000

» Project lead: LA Department of Transportation

Estimated Lifetime Benefits

» GHG emissions reductions: 18,070 MTCO2e

» VMT Reductions: 18,051,441 miles

» Travel cost savings: $1,109,829

» Direct jobs from TCC dollars: 6

» Indirect jobs from TCC dollars: 3

» Induced jobs from TCC dollars: 5

Progress Through FY 2019-2020

» LADOT underwent the bus procurement process, including selecting a manufacturer in the nearby Lancaster area, placing the order for the buses, and beginning the bus manufacturing process.

Responses to COVID-19

» The buses required to operate the new DASH Pacoima route are being manufactured locally in Lancaster, California. Due to COVID-19 restrictions, the Lancaster factory was shut down and was set to re-open for production in late 2020 to early 2021.

Low-Carbon Transportation Project

The Electric Vehicle Charging Station project will install critical infrastructure at four mobility hubs.

GREEN TOGETHER'S LOW-CARBON TRANSPORTATION PROJECT, referred to as the Electric Vehicle Charging Station project, will fill a critical mobility gap and will increase access to services and amenities without production of GHGs from tailpipe emissions. There is currently very limited EV charging infrastructure available to resident in the Green Together project area. Installing charging stations at centrally located intersections and business districts will ensure the new charges are visible and accessible to residents interested in using EV chargers for their own vehicles or future EV car share mobility options. In doing so, the project is helping to break down barriers to car ownership and car share programs and helping to ensure that EVs become a practical alternative in all neighborhoods regardless of socioeconomic class. The EV Charging Station project is led by the Trust for Public Land (TPL) with community engagement support from Pacoima Beautiful. TPL will implement the EV charging infrastructure at four mobility hubs to facilitate convenient, safe and attractive active and alternative transportation options near community resources.

Recent Accomplishments*

- The Trust for Public Land has undertaken significant work to engage the City and solidify partnerships needed to install electric vehicle charging infrastructure on public property, including 5 meetings and conference calls with 16 officials from the City of LA
- 18 community members provided input on potential locations of EV charging stations at community event on May 22, 2021

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

The mobility hub sites were selected to address the community-identified needs for a safe, accessible walking and biking environment. They will provide important first-last mile connectivity to three planned Metro light rail stations that are part of the East San Fernando Valley Transit Corridor leveraged project, as well as the DASH E-bus funded project, and existing Metro local and rapid bus service stops. In addition to the EV charging infrastructure, the hubs will include bike share infrastructure, bike parking, seating, way-finding signage and public art as outlined in the Pedestrian Mobility Improvements funded project. GRID Alternatives, a lead partner for other TCC projects, will manage the installation of the EV chargers.

While new EV infrastructure will increase clean mobility options without production of GHGs from tailpipe emissions, there is not an established methodology for estimating GHG sequestration benefits in urban environments, VMT reductions, or travel cost savings. As such, these benefits are not included in estimates reported below.

Electric Vehicle Charging Stations

Project Details

» Launch date: May 2020
» Anticipated completion date: February 2025
» Project lifetime: 3+ years
» TCC grant funds: $459,173
» Leveraged funds: $0
» Project lead: The Trust for Public Land

Estimated Lifetime Benefits

» Induced jobs from TCC dollars: 2

Responses to COVID-19

» TPL has implemented extensive changes to planned activities to meet public health guidelines, such as hosting community engagement activities on-line
» Reduced staffing in City departments has slowed the formation of the partnerships needed to install chargers on public property
» COVID reduced staff capacity at the City of Los Angeles Department of Recreation and Parks, leading to a delayed approval of park sites as viable locations for EV charging stations

Rooftop Solar Project

Rooftop solar PV panels installed by GRID Alternatives staff and trainees in Los Angeles. Photo credit: GRID Alternatives

GREEN TOGETHER'S SOLAR PROJECT, referred to as the Single-Family Solar Photovoltaic Installations Project, will enhance the generation of local renewable energy and lower energy costs for property owners by installing 669 kW of photovoltaic systems on 175 single family homes in the project area. Single-Family Solar Photovoltaic Installations will be coupled with leveraged weatherization services to address the projected increase in extreme heat days in the project area and community concerns raised during the grant engagement process regarding lack of proper ventilation and air conditioning in many homes. The project is led by GRID Alternatives Los Angeles, a nonprofit organization that installs solar power systems and provides job training for undeserved communities. The installation project is also part of Green Together's Workforce Development Plan (WDP) training activities aimed at creating a pipeline of green local jobs and a thriving workforce in the Northeast Valley. As part of the WDP, the solar project will provide on-the-job training for at least 96 residents to participate in foundational career training in solar panel installation, energy auditing, manufacturing and recycling sectors.

Recent Accomplishments*

- Developed outreach strategy and produced materials
- Began outreach efforts with Green Together partners
- 20 site visits to assess solar PV potential
- 1 solar installation on a single family home completed
- Awarded additional $150,000 grant to provide up to 30 homeowners in the Northeast Valley with re-roofs or service panel upgrades needed to access no-cost solar systems.

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

The solar photovoltaic systems will be provided at no cost to homeowners and there are no liens placed on the property either. Current homeowners may transfer the solar rooftops if they sell their home without cost to future owners. GRID will also conduct a post-installation training session for all homeowners that receive solar and these homeowners are invited to the training session within three months of install where they will be provided additional information about their system, their new energy bills, and important phone numbers in case there is a problem with the system. Homeowners will also be asked for referrals to others residents that may be interested.

The average cost per system is roughly $20,000 with an average DC rating (system size) of 3.72 kW, average AC rating (system size) of 3.22 kW, and an average lifetime client savings of $34,532. Homeowners can expect to save between 50-90% on their energy bill. Other project co-benefits are detailed in the table below.

Single-Family Solar Photovoltaic Installations

Project Details

» Launch date: May 2020
» Anticipated completion date: April 2025
» Project lifetime: 30 years
» TCC grant funds: $4,702,495
» Leveraged funds: $111,350
» Project lead: GRID Alternatives

Estimated Lifetime Benefits

» GHG emissions reductions: 9,074 MTCO2e
» Renewable energy generation: 29,859,008 kWh
» Energy cost savings: $3,989,163
» Direct jobs from TCC dollars: 22
» Indirect jobs from TCC dollars: 11
» Induced jobs from TCC dollars: 16

Responses to COVID-19

» Due to COVID-19, the GRID Alternatives Greater Los Angeles office temporarily closed its doors to the public
» Transitioned from in-person workforce trainings to on-line or hybrid trainings
» Extensive changes to client interactions have been made to meet public health guidelines, such as hosting virtual engagement activities.

Urban Greening Project

Mural at David M Gonzales recreation center. Photo credit: City of Los Angeles Parks & Recreation

GREEN TOGETHER'S URBAN GREENING PROJECT will be led by Trust for Public Land (TPL) and will focus on the renovation of David M. Gonzales Park and Recreation Center, a 6.8 acre neighborhood park at the intersection that serves roughly 11,000 residents within a 10-minute walk. The park will receive retrofits that make it more useful to the community and more adaptable to the impacts of climate change by renovating the park to mimic natural ecosystem and cooling micro-climates. Project enhancements include the addition of 95 shade trees, landscaped areas with drought-tolerant and California native plants, a nature trail through a Native Plant Demonstration Garden, picnic tables, permeable surfaces, walking paths, and new interpretive signage. In addition to cooling benefits, the project will reduce flooding, improve water quality and regional water security, and promote biodiversity. To achieve these aims, the project will incorporate over 71,000 sq ft of green infrastructure elements and best management practices that simulate a natural system's ability to capture, absorb, and filter stormwater and pollutants. For example, a bioswale will capture and infiltrate approximately 256 cubic feet of water. Other project co-benefits

Recent Accomplishments*

- Continued community engagement process
- 87 responses, including 44 more detailed comments, to a survey distributed in December 2020 – January 2021.
- Engaged with the Office of Councilmember Monica Rodriguez to introduce the project and gain support.
- Presented at and attended three community meetings on the LADWP stormwater infiltration project.

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

are detailed in the table below.

The renovation of David M. Gonzales Park is a two phase project. In the first phase, the Los Angeles Department of Water & Power (LADWP) will add sportsfield amenities and an infiltration gallery beneath the fields that will direct approximately 2,300,000 gallons of water to the local aquifer. Phase One is funded by the Los Angeles Department of Water & Power.

TCC will fund Phase Two of the park renovation, which was detailed on the previous page. TPL is leading the complex coordination between all the entities involved in project implementation, including community outreach with Pacoima Beautiful, the City of LA Department of Recreation and Parks, LADWP, and the Los Angeles Conservation Corps. TPL is working in coordination with LADWP to ensure that the park renovation is completed on time.

Community engagement efforts for the park renovation project have been coupled with the engagement efforts for the Green Together Resiliency Center, a TCC leveraged project led by GRID Alternatives. The Resiliency Center Project will retrofit a nearby community center with a solar system and will provide cooling amenities in the event of a major heat event.

David M. Gonzalez Park Renovation

Project Details

» Launch date: May 2020
» Anticipated completion date: March 2026
» Project lifetime: 40 years
» TCC grant funds: $2,269,939
» Leveraged funds: $0
» Project lead: Trust for Public Land

Estimated Lifetime Benefits

» GHG emissions reductions: 84 MTCO2e
» Shade trees planted: 95
» Direct jobs from TCC dollars: 16
» Indirect jobs from TCC dollars: 4
» Induced jobs from TCC dollars: 10

Progress Through FY 2019-2020

» Began cross-agency coordination activities, including contracting and procurement processes
» Began community engagement and outreach planning

Responses to COVID-19

» TPL has implemented extensive changes to planned activities to meet public health guidelines, such as hosting cross-agency coordination activities on-line.
» Gathering feedback for community based projects such as this has been challenging.

Urban and Community Forestry Project

Brothers Raymond and Ryan Castro planting street trees in the project area, August 2020. Photo credit: LACCs

GREEN TOGETHER'S URBAN AND COMMUNITY FORESTRY PROJECT will complement other efforts throughout the neighborhood to increase resident access to tree coverage and open green space, reduce air conditioning usage and demand for electricity for cooling purposes. The project is coordinated by the Los Angeles Conservation Corps (LACC) with outreach support from Pacoima Beautiful. LACC is a local non-profit that provides at-risk young adults (18-24 years) and school-aged youth with opportunities for success through job skills training, education and work experience with an emphasis on conservation and service projects that benefit the community. The Street Tree Planting project leverages TCC funds to plant and maintain 2,000 new trees, focusing on shade for commercial and residential properties usage.

As the trees mature, they will sequester carbon and shade nearby buildings. The additional tree coverage will also reduce the urban heat island effect on hot days and absorb stormwater on rainy days. LACC will coordinate community engagement activities with support from Pacoima Beautiful and will focus on two activities. First, raising awareness of the need for expanding the urban tree canopy, which will be accomplished by online and face-to-face messaging. The Corpsmembers and Pacoima Beautiful's Promotoras and youth community organizers will canvass residents and

Recent Accomplishments*

- 510 trees planted in public space with low to no shade areas
- 11,235 visits to planted trees for watering, maintenance, and monitoring
- 24 part-time jobs on street tree planting crews through LA Conservation Corps

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

small business owners to secure permission to plant. They will also invite them to participate in the ongoing care of the trees.

The Street Planting project is also part of the Green Together Workforce Development Plan (WDP) led by GRID Alternatives. Green Together's WDP provides 50 paid on-the-job training opportunities in TCC tree planting activities for local youth who are interested in a career in urban forestry and brownfields remediation. The Street Tree Planting project will also coordinate with the TCC-funded renovation of the David M. Gonzalez Park and Recreation Center, which includes ecosystem enhancements such as the addition of 95 shade and other green infrastructure to provide cooling and other benefits to nearby residents.

Other co-benefits of the Street Planting urban and community forestry project are detailed in the table below.

Street Tree Planting

Project Details

» Launch date: May 2020
» Anticipated completion date: February 2025
» Project lifetime: 40 years
» TCC grant funds: $2,895,311
» Leveraged funds: $175,0000
» Project lead: Los Angeles Conservation Corps

Estimated Lifetime Benefits

» GHG emissions reductions: 5,359 MTCO2e
» Trees Planted: 2,000
» Energy cost savings: $216,091
» Avoided Stormwater Runoff: 8,842,048 gallons
» Direct jobs from TCC dollars: 31
» Indirect jobs from TCC dollars: 6
» Induced jobs from TCC dollars: 11

Responses to COVID-19

» COVID related staff shortages at the City of Los Angeles delayed tree planting permitting process. Pre-COVID, the turnaround time for permitting issuance was about 2 weeks. With COVID, the permitting process was extended to an average of 2-4 months for 50 trees.
» Due to COVID outbreaks, the City of Los Angeles Urban Forestry Division inspectors went from a 3-4 person crew to 1 on average.

LEVERAGED PROJECTS

Design Development plan for Bradley Green Alley & Plaza developed in 2018 by Pacoima Beautiful, Trust for Public Land, and LA Sanitation. **Photo credit: RCH Studios.**

LEVERAGED PROJECTS are those that further the goals of TCC investments and use entirely external sources of funding to help further their vision of TCC grantees. In the case of Green Together, there are six independently funded projects totaling more than $38 million These six leveraged projects include: (1) cool roof retrofits, (2) development of a Community Resiliency Center, (3) the renovation of Bradley Green Alley and Plaza, (4) engineering plans for the East San Fernando Valley Transit Corridor, (5) the development of a stormwater capture at Fernangeles Park, and (5) design and infrastructure of Green Streets. These projects include the planting of trees and plants, infrastructure to weather extreme heat events, stormwater capture and storage, and electric vehicle and charging infrastructure. The TCC grant will allow Green Together to augment existing community-driven and public efforts to create safer biking and walking infrastructure to increase multimodal travel options, create cooler conditions during extreme heat events, improve transit access, make electric vehicle and charging infrastructure accessible, and support regional efforts to supplement local water supplies. The following section provides an overview of the leveraged projects currently underway in the Northeast San Fernando Valley project area.

Cool Roof Retrofits

Single-family cool roof prototype that will be offered to Green Together project area residents free of charge. Photo credit: GRID Alternatives

THE COOL ROOF RETROFITS PROJECT is a decarbonized energy and energy efficiency program that will reduce interior temperatures during periods of extreme heat and lower energy and utility costs. Installation of 35 cool roofs over the grant period on single family residences receiving no-cost solar as part of the TCC-funded Solar Photovoltaics Project. Accessory dwelling units will also be eligible. Cool roof materials absorb less heat than standard roofing, thus reducing indoor temperatures during extreme heat events. According to CalAdapt data, extreme heat events are projected to increase in the area. During community engagement activities, residents raised concerns over the lack of proper ventilation and air conditioning. Retrofitting homes with cool roofs and providing weatherization services will give residents a more affordable option to power air conditioners. The project is led by GRID Alternatives Los Angeles (GRID), a nonprofit that installs solar power systems and provides job training for undeserved communities.

Recent Accomplishments*

- Began cross-partner coordination activities to develop outreach plan;
- Identified local roofing subcontracts to complete cool roof installs

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

OUTREACH STRATEGY

GRID will use a layered approach to encourage widespread use of the project and ensure the community is kept informed and engaged. GRID will work close with Pacoima Beautiful and other Green Together partners to determine effective outreach efforts for the community, including hosting workshops, town halls, house parties, tabling at local monthly events, and participating in events at the TCC-funded Green Together Resource Center. This new community resource center will be a "hub" of information and activity encompassing all aspects of the TCC Project.

ECONOMIC CO-BENEFITS

The installation project is also part of Green Together's Workforce Development Plan (WDP) activities to create a pipeline of green local jobs and a thriving workforce in the Northeast Valley. GRID will subcontract with local roofers, who will install the cool roof prior to solar installation by local resident trainees.

Cool Roof Retrofits

Project Details

- » Launch date: May 2020
- » Anticipated completion date: Ongoing
- » Project lead: GRID Alternatives
- » TCC grant funds: $0
- » Leveraged funds: $271,993

Progress Through FY 2019-2020

- » Began cross-agency coordination activities

Responses to COVID-19

- » Due to COVID-19, GRID Alternatives Greater Los Angeles reconfigured outreach strategies to meet public health guidelines.

Community Resiliency Center

David M. Gonzales Park, the future location of the Green Together Community Resiliency Center, 2014. Photo credit: City of Los Angeles

GREEN TOGETHER'S COMMUNITY RESILIENCY CENTER will retrofit the David M. Gonzales Park's recreation center will be designed with solar and storage systems that allow maintaining electricity during black-out events, providing safe harbor for residents to keep medicine cold, charge phones, and remain connected to families. The project will also serve as a cooling center during periods of extreme heat for at-risk populations such as seniors and families with small children. Extreme heat is an environmental burden facing Northeast Valley residents both outdoors as well as indoors as many homes lack proper ventilation and air conditioning. The existing City of Los Angeles Department of Recreation and Parks community center is located at a 6.8-acre neighborhood park that serves roughly 11,000 residents within a 10-minute walk. The project is led by GRID Alternatives-Greater Los Angeles (GRID) in coordination with multiple TCC projects.

Recent Accomplishments*

- GRID Alternatives has worked with other partners to align project schedules
- 2 site visits to Gonzalez Park and other nearby sites to assess the possibility of relocating the project to a public housing complex that faces the park to ensure the project can be completed on schedule

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

CROSS-CUTTING PROJECT APPROACH

Building the Community Resiliency Center requires extensive cross-partner and cross-agency coordination, highlighting the extensive need for partnership building to successfully design, implement and maintain community serving projects to address climate change.

The Community Resiliency Center Project will be funded by rebate dollars from Green Together's TCC-funded Residential Solar Photovoltaics Project. The project will be coupled with Green Together's Urban Greening Project, led by Trust for Public Land, to renovate the existing 6.8 acre park with new stormwater management landscapes, a learning garden, and trees.

The project will also benefit from the TCC-funded Pedestrian Mobility Improvements project. The Community Resiliency Center will also leverage Green Together's Workforce Development Plan (WDP) training activities. Participants in the trainings will install the solar systems on the recreation center. Future non-TCC related phases of the Community Resiliency Center include installing a splash pad in the park to provide a place for children and families to cool off during heat event.

As a result of this multifaceted cross-cutting project, the Community Resiliency Center project will require coordination of at least seven organization and Green Together partners, including Pacoima Beautiful, the City of Los Angeles Department of Recreation and Parks, the Los Angeles Department of Water and Power, the Los Angeles Conservation Corps, TPL and GRID Alternatives.

The cross-cutting renovation project will make the park more useful to the community and more adaptable to the impacts of climate change. Specifically, Green Together's Community Resiliency Center Project includes the following retrofits to David M. Gonzales Park and Recreation Center.

» Free electric vehicle service equipment (EVSE) charging stations for 2-4 vehicles.

» Renovation of David M. Gonzales Recreation Center with 40kW solar photovoltaic and storage system;

Community Resiliency Center

Project Details

» Launch date: June 2020

» Anticipated completion date: Ongoing

» Project lead: GRID Alternatives

» TCC grant funds: $0

» Leveraged funds: $271,660

Progress Through FY 2019-2020

» Launched cross-agency coordination activities

Responses to COVID-19

» Due to COVID-19, GRID Alternatives Greater Los Angeles reconfigured cross-agency and cross-partner collaborations to meet public health guidelines.

Bradley Green Alley and Plaza Renovation

A segment of Bradley Green Alley that was renovated through leveraged funds, August 2021. Photo credit: Joe Sorrentino, Trust for Public Land

BRADLEY GREEN ALLEY AND PLAZA RENOVATION is an urban greening project that has transformed a 0.67 acres of a blighted 25' wide alley and plaza into a community asset that yields multiple environmental and public health benefits. The project is located in the heart of the Pacoima business district and is adjacent to the San Fernando Gardens public housing complex. Project improvements include a stormwater capture system, shade structure, seating constructed out of locally sourced reclaimed lumber, shade trees, drought tolerant landscaping, and traffic calming design features. The project was initiated by Pacoima Beautiful and was led by the Trust for Public Land (TPL) and the Los Angeles Bureau of Sanitation (LASAN) in collaboration with multiple partners. The project supports multi-modal travel in the project area and contributes to LA's water sustainability by supplementing local water supply efforts. The renovations are a decade in the making as the site was first identified in 2011 by the community as a flexible event space to meet the need for community gathering spaces

Recent Accomplishments*

- Opened alley to public May 2020
- Ribbon Cutting on October 22, 2020

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

Green Together's Bradley Green Alley project includes the following renovations to Bradley Green Alley and Plaza:

» 800 ft of alley and street improvement;

» 6 streetlights funded by the local city council, 5 seating fixtures from locally sourced lumber, 1 shade structure;

» at least 1,000 drought-tolerant climbing vines and shrubs;

» 46 new trees;

» A stormwater capture system including catch basins, a drywell, infiltration trench, and infiltration planters to infiltrate up to 2M gallons, or 6 acre feet, per average rain year; and

» a nature classroom, informal play areas, fitness equipment.

A VISION FOR A GREENER PACOIMA

The Bradley Green Alley and Plaza Renovation project was first envisioned by community during the development of Pacoima Urban Greening Vision Plan. The Urban Greening Vision Plan was made possible, in part, through an urban greening grant from the California Strategic Growth Council awarded to Pacoima Beautiful in 2011. The alley is one of the first Shared Streets in the City of Los Angeles designed to slow traffic down to create safe community gathering spaces, while allowing for pedestrian and vehicle access.

COLLABORATIVE IMPLEMENTATION APPROACH

TPL managed design, construction, and overall project management. TPL partnered with a robust team to assist with outreach, post-construction monitoring, and maintenance. The team and roles include the following: Pacoima Beautiful was responsible for outreach and updating the community on project progress. LASAN was responsible for supporting the project design and implementation and conducting a post-implementation water quality monitoring. Other regional supporters include LA Waterkeeper and Liberty Hill Foundation.

After project completion, landscape and plant maintenance was conducted by the construction contractor for a period of one year, ending April 2021. Since the maintenance contract ended, Pacoima Beautiful has supported the landscape maintenance.

The renovation of Bradley Green Alley and Plaza is another example of the extensive cross-partner collaboration needed to successfully design, implement and maintain community driven projects that empowers them to choose their own goals, strategies, and projects to adapt to climate change.

Bradley Green Alley and Plaza Renovation

Project Details

» Launch date: February 2019

» Completion date: August 2021

» Project lead: Trust for Public Land and Los Angeles Bureau of Sanitation

» TCC grant funds: $0

» Leveraged funds: $2,694,764

Progress Through FY 2019-2020

» Completed community design, construction drawings, permitting, and contract bidding processes.;

» Completed contract bidding process;

» Broke ground September 2019

Responses to COVID-19

» Adopted County/City health measures for the construction site, including masking, on-site sanitation facilities, and a site COVID-19 compliance supervisor. As construction was considered an essential activity, construction activities were not impacted other than minor delays for some pieces of equipment

» Pacoima Beautiful also worked closely with businesses and residents adjacent to the project site who were impacted by both the project construction activities and COVID lock-down measures.

East San Fernando Valley Transit Corridor

Concept photo of the Laurel Canyon Blvd Metro stop, one of the five stops planned for the project area. Photo credit: Metro

The east SAN FERNANDO VALLEY TRANSIT CORRIDOR is a long-term endeavor underway in the Northeast San Fernando Valley that will provide vital public transit infrastructure investments to the community. Anticipated to open for revenue service in 2028, this project will bring high-quality, light rail transit service to improve mobility and access for residents of the Pacoima neighborhood and the Green Together project area. The project will also serve as a critical link between the busiest bus corridor in the Valley, the G Line (Orange) busway, two Metrolink lines and the future Sepulveda Transit Corridor that will connect the San Fernando Valley to the Westside and, eventually, Los Angeles International Airport.

The project is led by the Los Angeles County Metropolitan Transportation Authority (Metro) in partnership with Pacoima Beautiful for community engagement activities that fall within the Green Together project area. The leveraged portion of the project includes engineering and design services for three of the light rail stations and first/last mile planning for five of the light rail stations to identify projects to enhance the experience for people as they walk, bike, or roll to the stations or nearby destinations.

Recent Accomplishments*

- 167 people provided commentary or input on the transit design
- The project team, in partnership with Pacoima Beautiful, conducted a virtual bilingual workshop on the East San Fernando Valley Transit Corridor (ESFVTC) for the Pacoima community on November 10, 2020.
- The First/Last Mile (FLM) Plan for the ESFVTC Project was adopted in December 2020.

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

The project works in concert with other Green Together's TCC-funded projects. Collectively, the mobility improvements from these projects have the potential to boost economic development and improve social justice by facilitating access to regional amenities such as job centers, educational and health facilities, and other activity centers.

Specifically, leveraged project components for the East San Fernando Valley Transit Corridor will include the following:

» Planning and design engineering for the East San Fernando Valley Light Rail Transit Project; which includes the TCC Green Together project area; and

» First/Last Mile plans for several stations of the East San Fernando Valley Light Rail Transit Project, including the five planned stations in the TCC project area.

COLLABORATIVE IMPLEMENTATION APPROACH

The project will work with other Green Together low-carbon transportation projects, including the active transportation project, Pedestrian Mobility Improvements led by TPL. The Pedestrian Mobility Improvement project will provide four mobility hub sites to address first-last mile connectivity to three planned Metro light rail stations that are part of the East San Fernando Valley Transit Corridor leveraged project, as well as the DASH E-bus TCC-funded project, and existing Metro local and rapid bus service stops. The hubs will include EV charging infrastructure, bike share infrastructure, bike parking, seating, way-finding signage, and public art as outlined in the Pedestrian Mobility Improvements project.

There are multiple mobility challenges within the Green Together project study area. The project areas is expected to see continued population growth which increased demand for transit service along the Van Nuys Boulevard corridor, a corridor that already has high population density and transit dependent persons who rely on transit for daily transportation, including commuting. The Green Together Network expects that the improved transit connectivity and increased service provided by these projects will increase transit ridership, which in turn could result in environmental benefits due to reduced vehicle trips, reductions in vehicle miles traveled, less roadway congestion, and improved air quality.

East San Fernando Valley Transit Corridor

Project Details

» Launch date: December 2018
» Anticipated completion date: March 2022
» Project lead: LA Metro
» TCC grant funds: $0
» Leveraged funds: $13,160,646

Progress Through FY 2019-2020

» Received approval to hire contractor and start planning, design, and construction process for the transit corridor;
» Launched planning efforts for the First/Last Mile Plans to improve transit riders' experiences walking and biking to planned stations;
» Hosted or participated in 14 community events in the project area or nearby communities;
» Held three walk audits in the half-mile area, one for each of the proposed stations, to identify key issues with roads and sidewalks;
» 227 people provided commentary or input on the transit design;

Responses to COVID-19

» All in-person programming was suspended and moved to on-line platforms to comply with local COVID-19 guidelines

Fernangeles Park Stormwater Capture

Fernangeles Park Stormwater Capture leveraged project aerial site plan, June 2020. Photo credit: Ninjo & Moore

FERNANGELES PARK STORMWATER CAPTURE project will install a 1.6-acre underground infiltration gallery in an existing City of Los Angeles Park. The multi-benefit project will capture and infiltrate stormwater with the goals of reducing potential flooding, improve stormwater quality, increase, water supplies through stormwater capture, and provide recreational, social, and economic benefits. The design of the project includes features that will allow capture of stormwater from the park and adjacent streets and will recharging the San Fernando Groundwater Basin. The project will install 1 catch basin, bioswales, and a variety of park improvements, some of which will be informed by the community. The site is located in the Sun Valley Neighborhood in the southwest portion of the project area near the intersections of the I-5 freeway and State Highway 170. The project is led by the City of Los Angeles Department of Water and Power (LADWP), an agency responsible for providing the City of Los Angeles with a safe and reliable supply of water for a variety of uses.

Recent Accomplishments*

- **Final draft Pre-design report workshop held with multiple city agencies;**
- **Pre-design report released in October 2020**
- **Held a 50% design workshop**
- **283 stakeholders engaged throughout the project**

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

Project implementation will include the following:

» Planning and design engineering for 1.6-acre underground infiltration gallery;
» Underground infiltration gallery sized to store approximately 703,000 cubic feet of water;
» Design elements include catch basins, diversion structure(s), bioswales, hydrodynamic separator (HDS) units, flow measuring devices, supervisory control and data acquisition, educational signage, and park restoration/improvements;
» Various green street improvements to Morehart Street, such as new pavements, sidewalks, curbs and gutters.
» Park improvements will include upgrades to two baseball fields, including new dugouts, back-stops, batting cages, benches, sports lighting, and irrigation systems. The remainder of park improvements will be refined during design based on community input.

COLLABORATIVE IMPLEMENTATION APPROACH

The City of Los Angeles is a part of a complex multi-jurisdictional region. As such, implementing effective and comprehensive local stormwater capture projects involves a collaborative effort between several agencies.

The Fernangeles Park Stormwater Capture leveraged project is part of the LADWP's Stormwater Capture Master Plan that was completed and approved in 2015. The Master Plan was developed in close coordination with the Los Angeles County Flood Control District, the United States Bureau of Reclamation (USBR) Basin Study, and LASAN's Enhanced Watershed Management Plans (EWMPs). The project also cooperated with the Mayor's Sustainable City pLAn and the City's 2015 Urban Water Management Plan.

The LADWP will work in close coordination with the City of Los Angeles Department of Recreation and Parks, Pacoima Beautiful, the City of Los Angeles Council District 7, Los Angeles Department of Public Works, Los Angeles Department of Transportation, and the California Department of Transportation and other partners working in the Northeast San Fernando Valley.

Fernangeles Park Stormwater Capture

Project Details

» Launch date: May 2019
» Anticipated completion date: November 2023
» Project lead: LA Department of Water and Power
» TCC grant funds: $0
» Leveraged funds: $8,426,000

Progress Through FY 2019-2020

» Launched cross-agency coordination activities to discuss challenges, requirement, and specifications to prepare for design plans
» Initiated preliminary design phase
» Completed draft geotechnical report;
» Hosted 1 community Stormwater Capture Parks Program event at the project site

Responses to COVID-19

» COVID-19 did not significantly impact the Fernangeles Stormwater Capture Project as the project was in the preliminary design phase. The preliminary design phase required minimal field work with few personnel. Contractors safely conducted their work following local COVID-19 guidelines

Green Streets

Concept green street envisioned as part of the Pacoima Urban Greening Plan that laid groundwork for TCC. Photo credit: LA Más

THE VAN NUYS-GLENOAKS GREEN STREETS PROJECT is a stormwater management approach that incorporates vegetation, soil, and engineered systems to slow, filter, and clean urban runoff from impervious surfaces. The project focuses on two streets in the Pacoima neighborhood of the project area and takes a distributed approach by installing green stormwater infrastructure at various locations surrounding a part of the neighborhood. This project is a joint partnership between the City of Los Angeles Sanitation's (LASAN) Watershed Protection Division and the Department of Water and Power (LADWP). The project works in concert with the Green Together's TCC-funded Street Planting project led by the Los Angeles Conservation Corps and youth training component of the Workforce Development Plan (WDP). The project supports regional efforts to increase the local water supply and meeting the City's water quality standards by removing pollutants. Other project benefits include recharging the San Fernando Groundwater Basin and reduction in localized flooding.

Recent Accomplishments*

- **Construction began on September 21, 2020 and completed on March 31, 2021**
- **Successfully reduced localized flooding in the area**
- **The project consisted of:**
- **11 pretreatment chambers**
- **18 infiltration drywells**
- **11 catch basins**
- **2 vegetated stormwater curb extensions,**
- **700 linear feet of improvement to median**

* Only includes accomplishments during the last fiscal year (July 2020 through June 2021)

Specifically, the Van Nuys-Glenoaks Green Streets project implements the following:

» Two types of green stormwater infrastructure systems, a bioswale for water pre-treatment and a drywell infiltration system.

» Other design features will include curb inlets, vegetation, and a porous concrete gutter;

» The average yearly capture rate for the combined green street projects is 95 acre-feet per year.

In addition to the stormwater capture improvements, the project also includes street tree plantings to help shade and cool the streets and sidewalks and increase pedestrian comfort. This is an import feature as the already warm are is expected to experience an increase in extreme heat days over the coming decades. Together, these project components capture stormwater and urban runoff from a combined 100-acre watershed, bringing the benefits of urban greening to a disadvantaged community that has a long history of neglect.

COLLABORATIVE IMPLEMENTATION APPROACH

The planning for this work was initiated by Pacoima Beautiful years ago with the Pacoima Wash Vision Plan in 2008, and most recently with the Pacoima Urban Greening Vision Plan in 2015. LASAN managed the design and implementation of the Van Nuys-Glenoaks Green Streets project. LASAN worked closely with community partners including Pacoima Beautiful to ensure the project meets community needs for greening, beautification and more shade in the Northeast Valley while also capturing and cleaning stormwater.

The Green Together network and Pacoima Beautiful supported the project with outreach to help raise awareness of the green street projects in the community. LASAN hired the construction contractor to build the improvements. The Los Angeles Conservation Corps planted all the street trees as part of the Green Together Street Tree Planting project, providing training opportunities for youth.

Van Nuys-Glenoaks Green Streets Project

Project Details

» Launch date: November 2019

» Completion date: March 2021

» Project leads: Los Angeles Bureau of Sanitation and LA Department of Water and Power

» TCC grant funds: $0

» Leveraged funds: $3,665,000

Progress Through FY 2019-2020

» Began cross-agency and cross-partner coordination activities;

» Completed stormwater infrastructure design phase;

» Held construction kickoff meeting and began construction of bioswales, dry wells, curb inlets, vegetation, and tree planting.

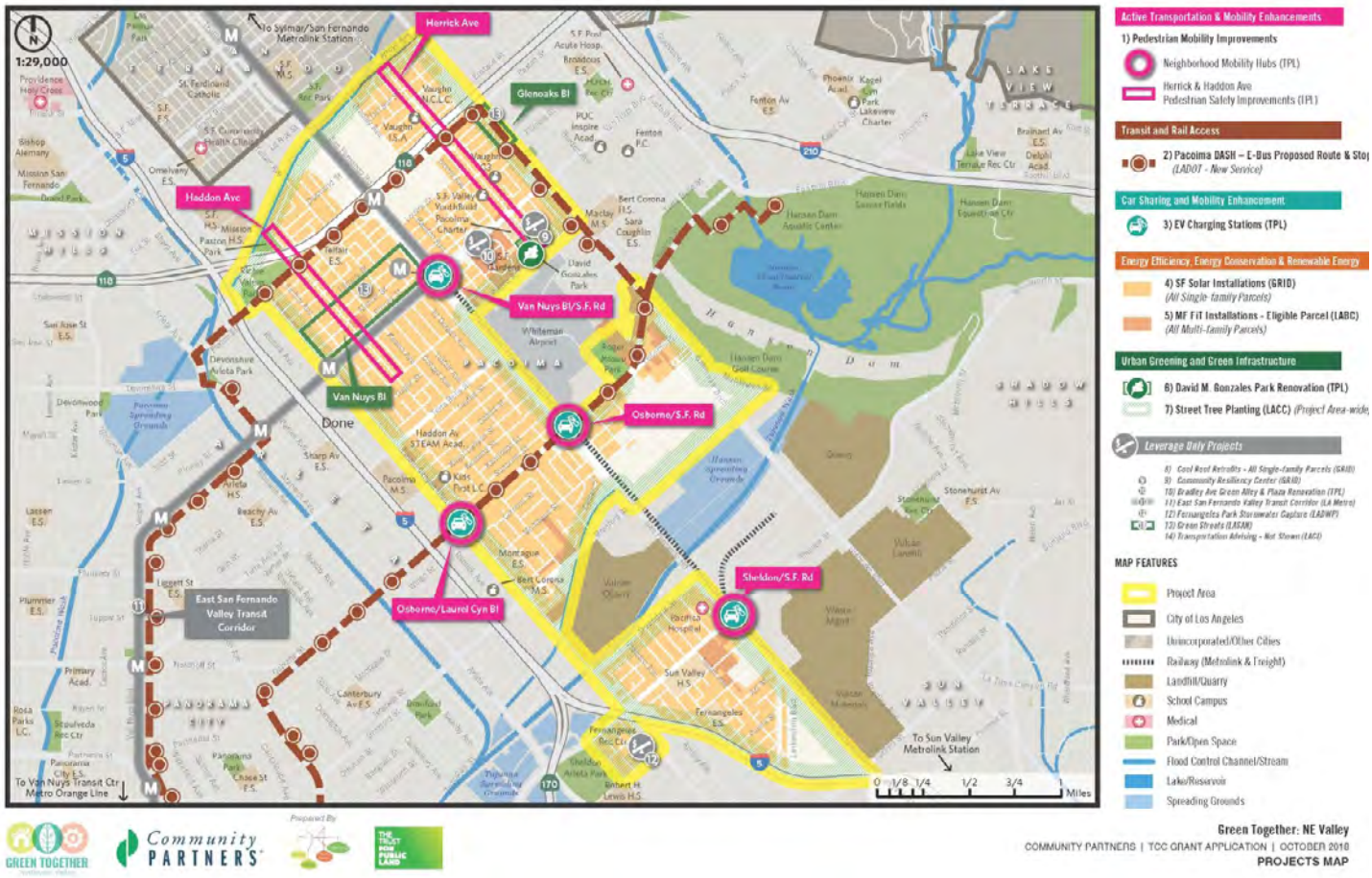
Responses to COVID-19

» Labor crews were running at a minimum capacity due to individuals being out sick because of COVID-19.

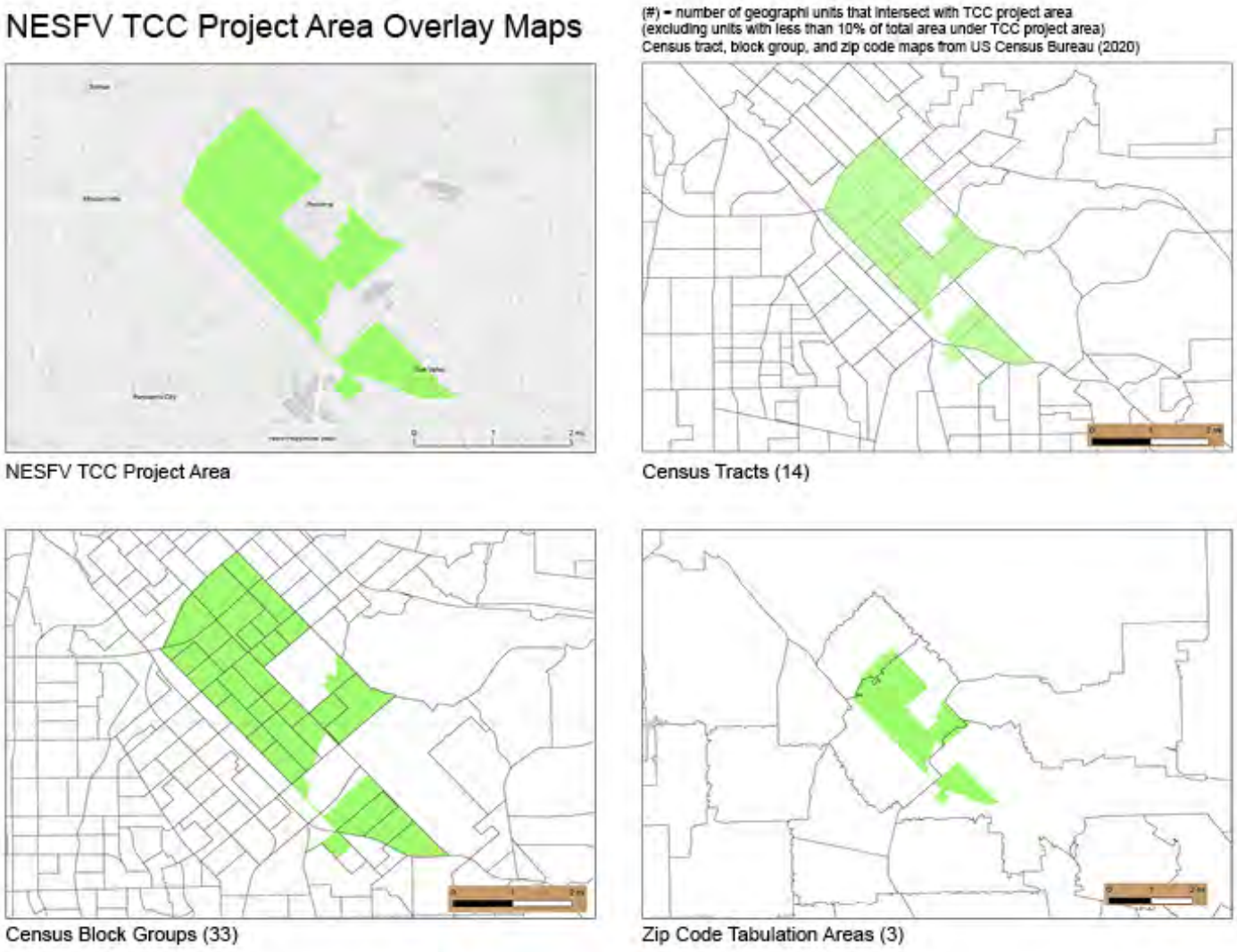
» The need to bring on additional crews caused delays in the project schedule.

APPENDICES

Appendix 1: Supplemental Maps



Detailed project map. **Figure credit: Green Together**



Maps depicting the scale of the TCC project area. **Figure credit: UCLA Luskin Center for Innovation**

Appendix 2: Summary of Methods for Estimating Project Benefits

Benefit	Methodology	Version	Revision Date
Avoided stormwater runoff	iTree Planting	1.1.3	N/A
Energy cost savings	California Air Resources Board (CARB) Co-benefit Assessment Methodology for Energy and Fuel Cost Savings[34]	N/A	9/13/2019
Greenhouse gas (GHG) reductions	CARB Quantification Methodology (QM): Active Transportation Program	FY 2017-18	N/A
	CARB QM: Low Carbon Transit Operations Program	FY 2017-18	1/2/2018
	CARB QM: Low Income Weatherization Program	FY 2015-16	11/14/2016
	CARB QM: Urban and Community Forestry Program	FY 2017-18	3/20/2018
Jobs (direct, indirect, induced)	Job Co-benefit Assessment Methodology	N/A	1/31/2020
Renewable energy generation	CARB QM: Low Income Weatherization Program	FY 2015-16	11/14/2016
Travel cost savings	CARB Co-benefit Assessment Methodology for Travel Cost Savings	N/A	10/18/2019
Vehicle miles traveled (VMT) reductions	CARB QM: Active Transportation Program	FY 2017-18	N/A
	CARB QM: Low Carbon Transit Operations Program	FY 2017-18	1/2/2018

[34] CARB's energy and fuel cost savings methodology does not provide an explicit example of how to calculate cost savings from urban forestry and greening projects. Nonetheless, CARB's methodology does provide a basic framework for estimating cost savings from any project that achieves energy use reductions: (energy cost savings = net decline in energy use X per unit cost of energy). Thus, for urban forestry and urban greening projects, the UCLA-UCB evaluation team estimated energy cost savings by taking two outputs from iTree (annual electricity savings and annual natural gas savings) and multiplying these outputs by their per unit cost (as based on cost assumptions from Appendix A of CARB's energy cost savings methodology). The evaluation team then scaled up these costs by 40 years and prorated them according to the percentage of trees that actually shade buildings (and therefore have a meaningful impact on electricity and gas use).

Appendix 3: Green Together Stakeholder Structure

Steering Committee

Member	Membership Type
Community Partners	Grantee
Pacoima Beautiful (PB)	Project Partner
The Trust for Public Land (TPL)	Project Partner
GRID Alternatives Greater Los Angeles (GRID)	Project Partner
Los Angeles Business Council (LABC)	Project Partner
Los Angeles Conservation Corps (LACC)	Project Partner
Los Angeles Department of Transportation (LADOT)	Project Partner
City of Los Angeles Bureau of Sanitation (LASAN)	Project Partner
Los Angeles County Metropolitan Transportation Authority (Metro)	Project Partner

Leadership Council

The publicly elected Leadership Council will provide feedback on key decisions to the Steering Committee. It is comprised of:

Membership Type	Number of Council Members
Residents	2
Business leaders	2
Local nonprofits	2
Anchor institutions	2
Community leaders	2
Local elected official	1

Appendix 4: Green Together TCC Census Tracts

Census Tract GeoID Number	City	Population (ACS 2014-2019 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)	Overlap with TCC Project Area (%)
14000US06037104500	Los Angeles	3,025	0.20	14,758	100%
14000US06037104310	Los Angeles	4,962	0.58	8,521	100%
14000US06037104320	Los Angeles	5,292	0.47	11,310	100%
14000US06037104701	Los Angeles	4,402	0.21	20,716	100%
14000US06037104810	Los Angeles	5,631	0.43	12,986	89%
14000US06037104610	Los Angeles	3,386	0.23	14,814	100%
14000US06037104620	Los Angeles	3,528	0.21	17,207	100%
14000US06037104404	Los Angeles	3,084	0.21	14,806	100%
14000US06037104703	Los Angeles	2,174	0.45	4,820	100%
14000US06037104821	Los Angeles	3,551	0.21	17,299	100%
14000US06037121210	Los Angeles	2,926	0.78	3,740	32%
14000US06037104704	Los Angeles	4,321	0.64	6,733	15%
14000US06037121222	Los Angeles	5,139	0.52	9,973	100%
14000US06037104401	Los Angeles	3,270	0.26	12,438	100%

Appendix 5: Green Together Control Census Tracts

Census Tract GeoID Number	City	Population (ACS 2015-2019 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)
14000US006037106604	Los Angeles	5,068	1.01	5,012
14000US006037122200	Los Angeles	3,469	0.66	5,274
14000US006037201602	Los Angeles	2,960	0.41	7,199
14000US006037127400	Los Angeles	6,558	0.84	7,790
14000US006037187200	Los Angeles	2,963	0.37	8,073
14000US006037199202	Los Angeles	3,155	0.37	8,568
14000US006037123206	Los Angeles	2,572	0.23	11,057
14000US006037201301	Los Angeles	4,498	0.33	13,460
14000US006037120010	Los Angeles	2,704	0.22	12,390
14000US006037115302	Los Angeles	3,957	0.32	12,239
14000US006037185320	Los Angeles	2,991	0.23	13,127
14000US006037122420	Los Angeles	4,503	0.33	13,528
14000US006037120105	Los Angeles	2,832	0.21	13,322
14000US006037204700	Los Angeles	5,510	0.39	14,125
14000US006037201501	Los Angeles	5,367	0.34	15,653
14000US006037117201	Los Angeles	5,191	0.31	16,993
14000US006037201504	Los Angeles	2,302	0.14	16,199
14000US006037121801	Los Angeles	3,127	0.19	16,686
14000US006037122121	Los Angeles	2,829	0.16	17,798
14000US006037204910	Los Angeles	3,341	0.20	16,707
14000US006037106114	Los Angeles	6,324	0.39	16,146
14000US006037122120	Los Angeles	5,011	0.28	18,042
14000US006037185203	Los Angeles	3,566	0.21	16,863
14000US006037134001	Los Angeles	3,864	0.23	17,160
14000US006037203900	Los Angeles	3,353	0.17	19,362
14000US006037204810	Los Angeles	5,277	0.30	17,770
14000US006037185310	Los Angeles	3,131	0.16	19,273
14000US006037204300	Los Angeles	5,445	0.25	21,933
14000US006037221210	Los Angeles	3,165	0.14	22,863
14000US006037119320	Los Angeles	4,906	0.19	25,602
14000US006037203200	Los Angeles	5,695	0.20	28,608
14000US006037218210	Los Angeles	3,721	0.15	24,825
14000US006037203710	Los Angeles	3,270	0.11	30,048
14000US006037204120	Los Angeles	2,971	0.10	29,236
14000US006037120108	Los Angeles	4,732	0.15	31,694

Appendix 6: Indicator Data

Appendix 6.1: Demographics

Table A6.1.1: American Community Survey (ACS) Demographic Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Total Population (B01003)	2009-2013	52,983	1,768	134,587	2,474	9,893,481	0	37,659,181	0
	2010-2014	54,157	1840	135,167	2,395	9,974,203	0	38,066,920	0
	2011-2015	54,874	1,597	135,034	2,292	10,038,388	0	38,421,464	0
	2012-2016	55,391	1,548	137,283	2,272	10,057,155	0	38,654,206	0
	2013-2017	57,027	1,601	138,508	2,270	10,105,722	0	38,982,847	0
	2014-2018	56,191	1,581	138,268	2,362	10,098,052	0	39,148,760	0
	2015-2019	54,691	1,726	140,328	2,426	10,081,570	0	39,283,497	0
	2016-2020	43,510	2,122	139,134	3,827	10,040,682	0	39,346,023	0
Percent Hispanic, all races (B03002)	2009-2013	91.0%	1.6%	83.1%	1.1%	47.9%	0.0%	37.9%	0.0%
	2010-2014	90.4%	1.8%	83.5%	1.1%	48.1%	0.0%	38.2%	0.0%
	2011-2015	90.9%	1.5%	83.2%	1.0%	48.2%	0.0%	38.4%	0.0%
	2012-2016	90.7%	1.3%	83.1%	0.9%	48.3%	0.0%	38.6%	0.0%
	2013-2017	91.3%	1.3%	83.1%	1.0%	48.4%	0.0%	38.8%	0.0%
	2014-2018	90.9%	1.5%	83.2%	1.1%	48.5%	0.0%	38.9%	0.0%
	2015-2019	91.3%	1.4%	82.6%	1.1%	48.5%	0.0%	39.0%	0.0%
	2016-2020	90.9%	2.0%	82.1%	1.5%	48.3%	0.0%	39.1%	0.0%
Percent White, non-Hispanic (B03002)	2009-2013	3.0%	0.6%	7.0%	0.6%	32.5%	0.0%	39.7%	0.0%
	2010-2014	3.1%	0.6%	7.3%	0.6%	27.5%	0.0%	39.2%	0.0%
	2011-2015	3.0%	0.6%	7.5%	0.6%	27.2%	0.0%	38.7%	0.0%
	2012-2016	2.8%	0.5%	7.3%	0.6%	26.9%	0.0%	38.4%	0.0%
	2013-2017	3.0%	0.5%	7.5%	0.6%	26.7%	0.0%	37.9%	0.0%
	2014-2018	2.9%	0.6%	7.8%	0.5%	26.5%	0.0%	37.5%	0.0%
	2015-2019	3.4%	0.6%	7.8%	0.5%	26.2%	0.0%	37.2%	0.0%
	2016-2020	3.9%	0.8%	8.1%	0.6%	25.9%	0.0%	36.5%	0.0%

*Margins of Error (MOE) for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation (LCI) in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval..

Table continues next page

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent all communities of color, non-Hispanic: Black, Asian, Pacific Islander, American Indian, Other, and Two or More Races (B03002)	2009-2013	6.0%	1.0%	9.9%	0.7%	24.6%	0.1%	22.4%	0.0%
	2010-2014	6.5%	1.1%	9.3%	0.6%	24.7%	0.1%	22.7%	0.0%
	2011-2015	6.1%	0.9%	9.3%	0.6%	24.8%	0.1%	22.9%	0.0%
	2012-2016	6.5%	0.9%	9.6%	0.7%	24.9%	0.1%	23.1%	0.0%
	2013-2017	5.7%	0.8%	9.4%	0.7%	25.1%	0.1%	23.3%	0.0%
	2014-2018	6.1%	0.9%	9.0%	0.6%	25.2%	0.1%	23.6%	0.0%
	2015-2019	5.3%	0.9%	9.6%	0.6%	25.3%	0.1%	23.8%	0.0%
	2016-2020	5.3%	1.0%	9.8%	0.8%	25.8%	0.1%	24.1%	0.1%
Percent other communities of color, non-Hispanic: Pacific Islander, American Indian, Other, Two or More Races	2009-2013	0.5%	0.2%	0.7%	0.2%	2.7%	0.0%	3.6%	0.0%
	2010-2014	0.4%	0.2%	0.8%	0.2%	2.8%	0.1%	3.7%	0.0%
	2011-2015	0.6%	0.3%	0.8%	0.2%	2.9%	0.1%	3.7%	0.0%
	2012-2016	0.7%	0.3%	0.9%	0.2%	2.9%	0.0%	3.8%	0.0%
	2013-2017	0.5%	0.2%	0.8%	0.2%	2.9%	0.0%	3.9%	0.0%
	2014-2018	0.5%	0.2%	1.0%	0.2%	3.0%	0.0%	3.9%	0.0%
	2015-2019	0.8%	0.3%	1.1%	0.3%	3.0%	0.1%	4.0%	0.0%
	2016-2020	1.3%	0.5%	1.3%	0.3%	3.4%	0.1%	4.4%	0.0%
Percent Black, non-Hispanic (B03002)	2009-2013	3.5%	0.8%	2.3%	0.4%	8.1%	0.0%	5.7%	0.0%
	2010-2014	3.4%	0.9%	2.3%	0.4%	8.0%	0.0%	5.7%	0.0%
	2011-2015	3.3%	0.8%	2.4%	0.4%	8.0%	0.0%	5.6%	0.0%
	2012-2016	3.0%	0.7%	2.5%	0.4%	8.0%	0.0%	5.6%	0.0%
	2013-2017	2.5%	0.5%	2.3%	0.4%	7.9%	0.0%	5.5%	0.0%
	2014-2018	2.8%	0.6%	2.1%	0.3%	7.9%	0.0%	5.5%	0.0%
	2015-2019	2.7%	0.7%	2.3%	0.4%	7.8%	0.0%	5.5%	0.0%
	2016-2020	2.0%	0.7%	2.0%	0.3%	7.8%	0.0%	5.4%	0.0%
Percent Asian, non-Hispanic (B03002)	2009-2013	2.1%	0.5%	6.9%	0.6%	13.7%	0.0%	13.1%	0.0%
	2010-2014	2.7%	0.7%	6.2%	0.5%	13.8%	0.0%	13.3%	0.0%
	2011-2015	2.3%	0.5%	6.2%	0.5%	14.0%	0.0%	13.5%	0.0%
	2012-2016	2.8%	0.5%	6.2%	0.5%	14.1%	0.0%	13.7%	0.0%
	2013-2017	2.7%	0.6%	6.2%	0.5%	14.3%	0.0%	13.9%	0.0%
	2014-2018	2.8%	0.6%	6.0%	0.5%	14.4%	0.0%	14.1%	0.0%
	2015-2019	1.7%	0.5%	6.2%	0.5%	14.4%	0.0%	14.3%	0.0%
	2016-2020	2.0%	0.6%	6.5%	0.7%	14.6%	0.0%	14.6%	0.0%

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent Pacific Islanders, non-Hispanic (B03002)	2009-2013	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2011-2015	0.0%	0.0%	0.1%	0.1%	0.3%	0.0%	0.4%	0.0%
	2012-2016	0.0%	0.0%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2013-2017	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2014-2018	0.0%	0.0%	0.1%	0.0%	0.3%	0.0%	0.4%	0.0%
	2015-2019	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2016-2020	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%
Percent American Indian, non-Hispanic (B03002)	2009-2013	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2011-2015	0.1%	0.1%	0.1%	0.0%	0.2%	0.0%	0.4%	0.01%
	2012-2016	0.1%	0.1%	0.1%	0.0%	0.2%	0.0%	0.4%	0.01%
	2013-2017	0.1%	0.1%	0.1%	0.0%	0.2%	0.0%	0.4%	0.0%
	2014-2018	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2015-2019	0.1%	0.1%	0.1%	0.0%	0.2%	0.0%	0.4%	0.0%
	2016-2020	0.0%	0.1%	0.1%	0.0%	0.2%	0.0%	0.3%	0.0%
Percent two or more races, non-Hispanic (B03002)	2009-2013	0.4%	0.2%	0.5%	0.2%	2.1%	0.0%	2.6%	0.0%
	2010-2014	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	2.7%	0.0%
	2011-2015	0.5%	0.3%	0.6%	0.2%	2.2%	0.0%	2.8%	0.0%
	2012-2016	0.5%	0.2%	0.6%	0.2%	2.2%	0.0%	2.9%	0.0%
	2013-2017	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	2.9%	0.0%
	2014-2018	0.2%	0.1%	0.7%	0.2%	2.2%	0.0%	3.0%	0.0%
	2015-2019	0.5%	0.2%	0.8%	0.2%	2.3%	0.1%	3.0%	0.0%
	2016-2020	0.7%	0.3%	0.9%	0.2%	2.6%	0.1%	3.4%	0.0%
Percent other, non-Hispanic (B03002)	2009-2013	0.0%	0.1%	0.1%	0.0%	0.2%	0.0%	0.2%	0.0%
	2010-2014	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.2%	0.0%
	2011-2015	0.1%	0.1%	0.0%	0.0%	0.3%	0.0%	0.2%	0.0%
	2012-2016	0.1%	0.1%	0.1%	0.1%	0.3%	0.0%	0.2%	0.0%
	2013-2017	0.1%	0.2%	0.1%	0.1%	0.3%	0.0%	0.2%	0.0%
	2014-2018	0.2%	0.2%	0.1%	0.1%	0.3%	0.0%	0.2%	0.0%
	2015-2019	0.1%	0.2%	0.2%	0.1%	0.3%	0.0%	0.3%	0.0%
	2016-2020	0.4%	0.3%	0.3%	0.2%	0.4%	0.0%	0.3%	0.0%

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent foreign-born population (B05006)	2009-2013	44.1%	1.9%	47.4%	1.0%	35.1%	0.1%	27.0%	0.1%
	2010-2014	43.7%	1.9%	46.9%	1.0%	34.9%	0.1%	27.0%	0.1%
	2011-2015	44.3%	1.6%	46.3%	0.9%	34.7%	0.1%	27.0%	0.1%
	2012-2016	44.4%	1.4%	45.4%	0.9%	34.5%	0.1%	27.0%	0.1%
	2013-2017	45.3%	1.7%	44.5%	0.9%	34.4%	0.1%	27.0%	0.1%
	2014-2018	44.5%	1.7%	44.5%	0.9%	34.2%	0.1%	26.9%	0.1%
	2015-2019	44.4%	2.0%	43.9%	0.9%	34.0%	0.1%	26.8%	0.1%
	2016-2020	44.5%	2.0%	43.7%	1.2%	33.4%	0.1%	26.6%	0.1%
Percent born in Asia (B05006)	2009-2013	1.9%	0.4%	5.9%	0.5%	11.9%	0.1%	9.8%	0.0%
	2010-2014	2.3%	0.6%	5.4%	0.4%	12.0%	0.1%	10.0%	0.0%
	2011-2015	2.1%	0.4%	5.5%	0.4%	12.0%	0.1%	10.1%	0.0%
	2012-2016	2.6%	0.5%	5.4%	0.4%	12.1%	0.1%	10.2%	0.0%
	2013-2017	2.6%	0.5%	5.6%	0.4%	12.1%	0.1%	10.4%	0.0%
	2014-2018	2.5%	0.5%	5.6%	0.4%	12.2%	0.1%	10.5%	0.0%
	2015-2019	1.9%	0.5%	5.7%	0.4%	12.2%	0.1%	10.6%	0.0%
	2016-2020	3.0%	0.8%	6.1%	0.6%	12.2%	0.1%	10.6%	0.0%
Percent born in Africa (B05006)	2009-2013	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2011-2015	0.0%	0.1%	0.3%	0.1%	0.6%	0.0%	0.4%	0.0%
	2012-2016	0.0%	0.1%	0.3%	0.1%	0.5%	0.0%	0.5%	0.0%
	2013-2017	0.1%	0.1%	0.2%	0.1%	0.6%	0.0%	0.5%	0.0%
	2014-2018	0.1%	0.1%	0.2%	0.1%	0.6%	0.0%	0.5%	0.0%
	2015-2019	0.2%	0.1%	0.3%	0.1%	0.6%	0.0%	0.5%	0.0%
	2016-2020	0.2%	0.1%	0.2%	0.1%	0.6%	0.0%	0.5%	0.0%
Percent born in Latin America (B05006)	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2011-2015	42.1%	1.7%	40.0%	1.0%	20.0%	0.1%	14.2%	0.1%
	2012-2016	41.5%	1.5%	39.2%	0.9%	19.8%	0.1%	14.0%	0.0%
	2013-2017	42.5%	1.7%	38.0%	0.9%	19.6%	0.1%	13.8%	0.1%
	2014-2018	41.8%	1.7%	38.0%	0.9%	19.4%	0.1%	13.7%	0.1%
	2015-2019	42.2%	2.0%	37.3%	1.0%	19.2%	0.1%	13.5%	0.1%
	2016-2020	41.3%	2.1%	36.7%	1.2%	18.8%	0.1%	13.2%	0.1%

Appendix 6.2: Economy

Table A6.2.1: American Community Survey (ACS) Economic Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Median household income (B19001)	2009-2013	$45,516	N/A	$39,952	N/A	$55,909	$256	$61,094	$157
	2010-2014	$45,611	N/A	$40,124	N/A	$55,870	$244	$61,489	$154
	2011-2015	$46,403	N/A	$39,937	N/A	$56,196	$270	$61,818	$156
	2012-2016	$49,106	N/A	$40,921	N/A	$57,952	$331	$63,783	$188
	2013-2017	$51,369	N/A	$43,311	N/A	$61,015	$262	$67,169	$192
	2014-2018	$55,026	N/A	$47,468	N/A	$64,251	$247	$71,228	$217
	2015-2019	$57,501	N/A	$52,107	N/A	$68,044	$347	$75,235	$232
	2016-2020	$57,803	N/A	$55,213	N/A	$71,358	$336	$78,672	$270
Percent of individuals living below poverty (B17001)	2009-2013	23.5%	2.4%	25.9%	1.6%	17.8%	0.2%	15.9%	0.1%
	2010-2014	23.9%	2.4%	26.8%	1.5%	18.4%	0.2%	16.4%	0.1%
	2011-2015	24.6%	2.2%	26.7%	1.4%	18.2%	0.1%	16.3%	0.1%
	2012-2016	24.3%	2.2%	25.8%	1.4%	17.8%	0.2%	15.8%	0.1%
	2013-2017	22.8%	2.3%	23.9%	1.4%	17.0%	0.2%	15.1%	0.1%
	2014-2018	20.9%	2.2%	22.1%	1.4%	16.0%	0.2%	14.3%	0.1%
	2015-2019	19.7%	2.5%	19.5%	1.3%	14.9%	0.1%	13.4%	0.1%
	2016-2020	19.9%	3.1%	17.8%	1.5%	14.2%	0.2%	12.6%	0.1%
Percent high income ($125k +) (B19001)	2009-2013	5.5%	1.2%	5.8%	0.7%	17.6%	0.1%	19.9%	0.1%
	2010-2014	6.6%	1.3%	6.2%	0.7%	18.0%	0.1%	20.4%	0.1%
	2011-2015	7.2%	1.3%	6.2%	0.7%	18.3%	0.1%	20.9%	0.1%
	2012-2016	8.0%	1.3%	7.0%	0.7%	19.4%	0.1%	22.1%	0.1%
	2013-2017	9.4%	1.4%	8.7%	0.8%	21.0%	0.2%	23.9%	0.1%
	2014-2018	11.7%	1.7%	10.4%	0.9%	22.8%	0.2%	26.1%	0.1%
	2015-2019	14.0%	2.0%	12.7%	1.0%	24.5%	0.2%	28.0%	0.1%
	2016-2020	15.1%	2.1%	15.2%	1.3%	26.0%	0.2%	29.8%	0.1%
Percent with less than high school education (S1501)	2009-2013	51.1%	2.5%	44.6%	1.4%	23.4%	0.1%	18.8%	0.1%
	2010-2014	49.1%	2.6%	44.0%	1.3%	23.2%	0.1%	18.5%	0.1%
	2011-2015	48.3%	2.1%	44.2%	1.2%	22.7%	0.1%	18.2%	0.1%
	2012-2016	47.8%	2.0%	43.1%	1.2%	22.3%	0.1%	17.9%	0.1%
	2013-2017	46.9%	1.9%	41.7%	1.3%	21.8%	0.1%	17.5%	0.1%
	2014-2018	46.1%	2.0%	40.5%	1.2%	21.3%	0.1%	17.1%	0.1%
	2015-2019	47.0%	2.1%	39.1%	1.3%	20.9%	0.1%	16.7%	0.1%
	2016-2020	45.7%	2.2%	37.5%	1.4%	20.2%	0.1%	16.1%	0.1%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by LCI in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval.

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent with bachelor's degree or higher (S1501)	2009-2013	6.7%	0.9%	11.5%	0.7%	29.7%	0.2%	30.7%	0.1%
	2010-2014	6.8%	0.9%	11.9%	0.7%	29.9%	0.2%	31.0%	0.1%
	2011-2015	7.3%	1.0%	12.3%	0.7%	30.3%	0.2%	31.4%	0.1%
	2012-2016	7.4%	0.9%	12.8%	0.7%	30.8%	0.1%	32.0%	0.1%
	2013-2017	7.6%	0.9%	13.3%	0.7%	31.2%	0.2%	32.6%	0.1%
	2014-2018	8.1%	1.1%	14.1%	0.7%	31.8%	0.2%	33.3%	0.1%
	2015-2019	8.5%	1.0%	14.9%	0.8%	32.5%	0.2%	33.9%	0.1%
	2016-2020	9.1%	3.1%	16.1%	0.9%	33.5%	0.2%	34.7%	0.1%
Percent employed for the population 16 years and over (B23025)	2009-2013	53.8%	1.7%	56.1%	1.0%	57.5%	0.1%	56.4%	0.1%
	2010-2014	54.1%	1.6%	56.4%	0.9%	57.5%	0.1%	56.4%	0.1%
	2011-2015	55.2%	1.3%	57.4%	0.9%	58.0%	0.1%	56.9%	0.1%
	2012-2016	55.9%	1.3%	58.5%	0.9%	58.6%	0.1%	57.5%	0.1%
	2013-2017	58.0%	1.5%	59.3%	0.9%	59.3%	0.1%	58.2%	0.1%
	2014-2018	59.6%	1.5%	59.7%	0.9%	60.0%	0.1%	58.9%	0.1%
	2015-2019	60.0%	1.5%	60.7%	0.9%	60.7%	0.1%	59.4%	0.1%
	2016-2020	58.9%	1.7%	60.2%	0.8%	60.5%	0.1%	59.4%	0.1%

Appendix 6.3: Energy

Table A6.2.1: American Community Survey (ACS) Energy Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households heating home with electricity (B25040)	2009-2013	26.4%	2.5%	28.3%	1.4%	25.0%	0.1%	25.5%	0.1%
	2010-2014	26.4%	2.3%	28.6%	1.3%	25.2%	0.1%	25.8%	0.1%
	2011-2015	29.9%	2.2%	29.2%	1.3%	25.7%	0.1%	26.2%	0.1%
	2012-2016	26.6%	2.2%	29.0%	1.3%	25.9%	0.2%	26.4%	0.1%
	2013-2017	27.3%	2.4%	28.9%	1.3%	26.0%	0.1%	26.5%	0.1%
	2014-2018	28.2%	2.3%	28.3%	1.3%	25.9%	0.2%	26.4%	0.1%
	2015-2019	30.7%	2.4%	28.0%	1.3%	26.1%	0.2%	26.6%	0.1%
	2016-2020	28.4%	2.9%	30.3%	1.7%	26.7%	0.2%	27.1%	0.1%
Percent of households heating home with other non-fossil fuels (B25040)	2009-2013	0.3%	0.3%	0.3%	0.2%	0.3%	0.0%	1.8%	0.0%
	2010-2014	0.4%	0.4%	0.3%	0.2%	0.3%	0.0%	1.9%	0.0%
	2011-2015	0.6%	0.5%	0.3%	0.2%	0.4%	0.0%	1.9%	0.0%
	2012-2016	0.7%	0.5%	0.3%	0.1%	0.4%	0.0%	1.9%	0.0%
	2013-2017	0.6%	0.5%	0.2%	0.1%	0.5%	0.0%	2.0%	0.0%
	2014-2018	1.1%	0.7%	0.3%	0.2%	2.0%	0.1%	2.1%	0.0%
	2015-2019	1.3%	0.7%	0.5%	0.2%	0.5%	0.0%	2.1%	0.0%
	2016-2020	1.4%	0.7%	0.7%	0.3%	0.5%	0.0%	2.2%	0.0%
Percent of households heating home with utility gas (B25040)	2009-2013	55.3%	2.7%	60.0%	1.5%	67.7%	0.2%	66.0%	0.1%
	2010-2014	56.9%	2.7%	59.1%	1.5%	67.2%	0.1%	65.6%	0.1%
	2011-2015	53.8%	2.4%	58.1%	1.4%	66.6%	0.2%	65.0%	0.1%
	2012-2016	56.5%	2.5%	57.8%	1.4%	66.2%	0.2%	64.6%	0.1%
	2013-2017	55.0%	2.5%	58.3%	1.4%	66.0%	0.1%	64.4%	0.1%
	2014-2018	53.1%	2.6%	58.3%	1.4%	65.9%	0.2%	64.3%	0.1%
	2015-2019	51.2%	2.7%	58.2%	1.4%	65.7%	0.2%	64.1%	0.0%
	2016-2020	54.1%	2.8%	56.5%	1.5%	65.2%	0.2%	63.6%	0.1%
Percent of households heating home with other fossil fuels (B25040)	2009-2013	0.4%	0.3%	0.8%	0.2%	1.2%	0.0%	3.5%	0.0%
	2010-2014	0.3%	0.3%	0.8%	0.2%	1.3%	0.0%	3.4%	0.0%
	2011-2015	0.3%	0.3%	0.9%	0.2%	1.3%	0.0%	3.4%	0.0%
	2012-2016	0.3%	0.2%	0.8%	0.2%	1.3%	0.0%	3.4%	0.0%
	2013-2017	0.1%	0.2%	0.8%	0.2%	1.4%	0.0%	3.5%	0.0%
	2014-2018	0.4%	0.3%	1.1%	0.3%	1.4%	0.0%	3.5%	0.0%
	2015-2019	0.4%	0.3%	1.0%	0.3%	1.4%	0.1%	3.5%	0.0%
	2016-2020	0.5%	0.3%	1.2%	0.3%	1.6%	0.0%	3.6%	0.0%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by LCI in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval.

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of houses with no fuel used (B25040)	2009-2013	17.4%	2.3%	10.6%	1.0%	5.6%	0.1%	2.9%	0.0%
	2010-2014	15.9%	2.0%	11.1%	1.0%	5.8%	0.1%	3.0%	0.0%
	2011-2015	15.2%	1.8%	11.5%	1.0%	5.9%	0.1%	3.2%	0.0%
	2012-2016	15.7%	1.9%	12.1%	1.0%	6.1%	0.1%	3.3%	0.0%
	2013-2017	16.8%	1.9%	11.8%	0.9%	6.2%	0.1%	3.4%	0.0%
	2014-2018	17.2%	2.0%	12.0%	1.0%	6.2%	0.1%	3.4%	0.0%
	2015-2019	16.3%	2.0%	12.2%	1.0%	6.1%	0.1%	3.3%	0.0%
	2016-2020	15.7%	2.4%	11.3%	1.1%	5.8%	0.1%	3.2%	0.0%

Appendix 6.5: Health

Table A6.5.1: American Community Survey (ACS) Health Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent with health insurance coverage (B27001)	2009-2013	72.1%	1.7%	66.9%	1.2%	77.8%	0.2%	82.2%	0.1%
	2010-2014	73.7%	0.9%	69.0%	1.1%	79.1%	0.1%	83.3%	0.1%
	2011-2015	76.5%	1.1%	73.1%	0.9%	81.6%	0.1%	85.3%	0.1%
	2012-2016	79.3%	1.1%	77.1%	0.9%	84.1%	0.1%	87.4%	0.1%
	2013-2017	81.8%	1.1%	81.1%	0.8%	86.7%	0.1%	89.5%	0.1%
	2014-2018	84.3%	1.1%	84.2%	0.8%	89.2%	0.1%	91.5%	0.1%
	2015-2019	86.0%	0.9%	85.4%	0.7%	90.4%	0.1%	92.5%	0.1%
	2016-2020	86.7%	1.3%	86.0%	0.9%	90.8%	0.1%	92.8%	0.1%
Percent with private health insurance coverage (B27002)	2009-2013	33.6%	2.0%	33.2%	1.2%	54.3%	0.2%	61.0%	0.2%
	2010-2014	33.1%	1.9%	34.2%	1.1%	54.1%	0.2%	60.8%	0.2%
	2011-2015	33.5%	1.8%	35.1%	1.1%	55.0%	0.2%	61.2%	0.2%
	2012-2016	35.2%	1.7%	35.7%	1.1%	55.8%	0.2%	61.8%	0.2%
	2013-2017	36.1%	1.8%	38.2%	1.2%	56.8%	0.2%	62.6%	0.2%
	2014-2018	38.4%	1.8%	39.2%	1.2%	57.9%	0.2%	63.4%	0.2%
	2015-2019	39.4%	1.8%	38.8%	1.2%	58.4%	0.3%	63.8%	0.2%
	2016-2020	38.3%	1.7%	40.7%	1.3%	58.8%	0.2%	64.3%	0.2%
Percent with public health insurance coverage (B27003)	2009-2013	41.9%	2.2%	37.1%	1.3%	29.7%	0.1%	29.5%	0.1%
	2010-2014	43.7%	2.1%	38.3%	1.3%	31.1%	0.1%	30.8%	0.1%
	2011-2015	46.0%	2.0%	41.6%	1.2%	32.9%	0.1%	32.6%	0.1%
	2012-2016	47.8%	2.1%	44.8%	1.3%	34.7%	0.2%	34.3%	0.1%
	2013-2017	49.5%	2.1%	46.4%	1.3%	36.4%	0.1%	35.8%	0.1%
	2014-2018	50.1%	1.9%	48.6%	1.3%	38.0%	0.1%	37.2%	0.1%
	2015-2019	50.7%	2.2%	50.2%	1.3%	38.8%	0.2%	38.0%	0.1%
	2016-2020	52.8%	2.8%	49.2%	1.5%	39.0%	0.1%	38.0%	0.1%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by LCI in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval.

Table A6.5.2: Vehicle Collisions Involving Bicyclists and Pedestrians*

Indicator	Dataset Year	Gross Number of Collisions				Normalized by Street Mile			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50 ft	0ft	50 ft
Bicycle Collision at Injury Level 1: Fatal	2020	0	0	1	2	0	0	2.8	5.7
	2019	0	0	0	0	0	0	0	0
	2018	1	1	2	3	8.6	8.6	5.7	8.5
	2017	1	1	0	0	8.6	8.6	0	0
	2016	1	1	0	0	8.6	8.6	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
Bicycle Collision at Injury Level 2: Severe Injury	2020	2	2	2	2	17.3	17.3	5.7	5.7
	2019	2	2	3	3	17.3	17.3	8.5	8.5
	2018	2	2	1	2	17.3	17.3	2.8	5.7
	2017	1	1	1	2	8.6	8.6	2.8	5.7
	2016	2	2	4	6	17.3	17.3	11.3	17.0
	2015	0	0	4	5	0	0	11.3	14.2
	2014	2	2	3	4	17.3	17.3	8.5	11.3
Bicycle Collision at Injury Level 3: Visible Injury	2020	0	0	15	19	0	0	42.5	53.9
	2019	4	6	19	32	34.6	51.9	53.9	90.7
	2018	11	11	18	29	95.1	95.1	51.0	82.2
	2017	11	11	21	25	95.1	95.1	59.5	70.9
	2016	6	6	20	29	51.9	51.9	56.7	82.2
	2015	10	13	27	35	86.4	112.4	76.5	99.2
	2014	12	13	32	42	103.7	112.4	90.7	119.0
Bicycle Collision at Injury Level 4: Complaint of Pain	2020	6	6	18	29	51.9	51.9	51.0	82.2
	2019	7	9	15	26	60.5	77.8	42.5	73.7
	2018	8	13	16	32	69.1	112.4	45.4	90.7
	2017	7	9	19	30	60.5	77.8	53.9	85.0
	2016	6	6	17	25	51.9	51.9	48.2	70.9
	2015	7	9	22	28	60.5	77.8	62.4	79.4
	2014	6	7	26	35	51.9	60.5	73.7	99.2

*Collision data were obtained from the Transportation Injury Mapping System (TIMS). The numbers presented here are conservative in that they do not include collisions that were missing geographic coordinates in TIMS. Street mileage was obtained from OpenStreets-Map (OSM) and totaled 129 miles for the project area and 470 miles for the control tracts. Vehicle collisions involving bicycles and pedestrians are not mutually exclusive because some accidents may involve both modes.

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Indicator	Dataset Year	Gross Number of Collisions				Normalized by Street Mile			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50 ft	0ft	50 ft
Pedestrian Collision at Injury Level 1: Fatal	2020	1	2	4	6	8.6	17.3	11.3	17.0
	2019	3	3	4	9	25.9	25.9	11.3	25.5
	2018	1	2	5	6	8.6	17.3	14.2	17.0
	2017	1	1	5	6	8.6	8.6	14.2	17.0
	2016	0	0	2	5	0.0	0.0	5.7	14.2
	2015	1	1	1	3	8.6	8.6	8.6	8.5
	2014	1	2	3	4	8.6	17.3	8.5	11.3
Pedestrian Collision at Injury Level 2: Severe Injury	2020	6	6	13	18	51.9	51.9	36.8	51.0
	2019	5	5	15	24	43.2	43.2	42.5	68.0
	2018	7	11	8	10	60.5	95.1	22.7	28.3
	2017	3	3	9	14	25.9	25.9	25.5	39.7
	2016	3	3	12	14	25.9	25.9	34.0	39.7
	2015	3	3	5	10	25.9		14.2	28.3
	2014	3	4	4	8	25.9	34.6	11.3	22.7
Pedestrian Collision at Injury Level 3: Visible Injury	2020	8	9	29	45	69.1	77.8	82.2	127.5
	2019	14	14	31	48	121.0	121.0	87.9	136.1
	2018	10	11	30	53	86.4	95.1	85.0	150.2
	2017	11	11	33	47	95.1	95.1	93.5	133.2
	2016	8	9	31	48	69.1	77.8	87.9	136.1
	2015	17	19	27	45	146.9	164.2	76.5	127.5
	2014	15	16	24	42	129.6	138.3	68.0	119.0
Pedestrian Collision at Injury Level 4: Complaint of Pain	2020	11	13	28	45	95.1	112.4	79.4	127.5
	2019	10	11	51	72	86.4	95.1	144.6	204.1
	2018	13	15	38	56	112.4	129.6	107.7	158.7
	2017	11	13	40	64	95.1	112.4	113.4	181.4
	2016	6	8	33	50	51.9	69.1	93.5	141.7
	2015	6	9	35	54	51.9	77.8	99.2	153.1
	2014	7	8	34	54	60.5	69.1	96.4	153.1

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Indicator	Dataset Year	Gross Number of Collisions				Normalized by Street Mile			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50 ft	0ft	50 ft
Combined Bicycle and Pedestrian Collision at Injury Level 1: Fatal	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian Collision at Injury Level 2: Severe Injury	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	1	0	0	0	2.8
	2014	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian at Injury Level 3: Visible Injury	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	1	1	0	0	8.6	8.6	0	0
	2014	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian at Injury Level 4: Complaint of Pain	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	1	0	0	0	2.8
	2014	0	0	0	0	0	0	0	0

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Appendix 6.6: Housing

Table A6.6.1: American Community Survey (ACS) Housing Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent renters (B25003)	2009-2013	49.4%	2.8%	64.4%	1.3%	53.1%	0.2%	44.7%	0.1%
	2010-2014	50.8%	2.6%	64.3%	1.3%	53.6%	0.1%	45.2%	0.1%
	2011-2015	50.5%	2.3%	64.4%	1.3%	54.0%	0.2%	45.7%	0.1%
	2012-2016	48.9%	2.2%	64.1%	1.2%	54.3%	0.2%	45.9%	0.2%
	2013-2017	47.7%	2.4%	63.6%	1.2%	54.1%	0.2%	45.5%	0.1%
	2014-2018	46.5%	2.5%	63.1%	1.3%	54.2%	0.2%	45.4%	0.1%
	2015-2019	45.5%	2.5%	63.2%	1.2%	54.2%	0.2%	45.2%	0.1%
	2016-2020	45.6%	3.0%	63.0%	1.6%	54.0%	0.2%	44.7%	0.1%
Percent homeowners (B25003)	2009-2013	50.6%	2.6%	35.6%	1.2%	46.9%	0.3%	55.3%	0.3%
	2010-2014	49.2%	2.5%	35.7%	1.2%	46.4%	0.3%	54.8%	0.3%
	2011-2015	49.5%	2.2%	35.6%	1.2%	46.0%	0.3%	54.3%	0.3%
	2012-2016	51.1%	2.2%	35.9%	1.2%	45.7%	0.3%	54.1%	0.3%
	2013-2017	52.3%	2.4%	36.4%	1.2%	45.9%	0.3%	54.5%	0.3%
	2014-2018	53.5%	2.4%	36.9%	1.2%	45.8%	0.3%	54.6%	0.3%
	2015-2019	54.5%	2.4%	36.8%	1.2%	45.8%	0.3%	54.8%	0.3%
	2016-2020	54.4%	2.3%	37.0%	1.3%	46.0%	0.3%	55.3%	0.3%
Percent of households paying ≥30% of income on rent (B25070)	2009-2013	65.0%	5.2%	63.4%	2.5%	56.4%	0.3%	54.1%	0.2%
	2010-2014	63.4%	5.0%	64.2%	2.5%	57.0%	0.3%	54.2%	0.1%
	2011-2015	62.9%	4.7%	64.8%	2.5%	56.9%	0.3%	54.0%	0.1%
	2012-2016	61.8%	4.5%	64.3%	2.4%	56.5%	0.3%	53.6%	0.1%
	2013-2017	64.4%	5.0%	62.4%	2.5%	56.1%	0.3%	53.1%	0.1%
	2014-2018	61.3%	4.9%	60.4%	2.5%	55.5%	0.3%	52.6%	0.2%
	2015-2019	63.4%	5.1%	58.5%	2.5%	54.9%	0.3%	52.1%	0.2%
	2016-2020	60.8%	5.5%	57.4%	2.5%	54.4%	0.4%	51.5%	0.2%
Percent of households paying ≥50% of income on rent (B25070)	2009-2013	38.4%	4.1%	37.6%	1.9%	30.7%	0.2%	28.3%	0.1%
	2010-2014	38.7%	4.1%	37.8%	1.9%	31.0%	0.2%	28.5%	0.1%
	2011-2015	37.8%	3.7%	37.0%	1.9%	30.9%	0.2%	28.2%	0.2%
	2012-2016	37.3%	3.6%	36.9%	1.8%	30.6%	0.2%	27.9%	0.1%
	2013-2017	38.8%	4.1%	34.9%	1.9%	30.1%	0.3%	27.4%	0.1%
	2014-2018	35.1%	3.9%	32.9%	1.9%	29.5%	0.2%	27.0%	0.2%
	2015-2019	35.8%	4.1%	30.4%	1.8%	29.0%	0.2%	26.6%	0.2%
	2016-2020	33.3%	4.7%	29.9%	2.0%	28.8%	0.3%	26.2%	0.2%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by LCI in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval.

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households paying ≥30% of income on mortgage (B25091)	2009-2013	26.3%	3.6%	32.1%	2.6%	30.3%	0.2%	29.7%	0.1%
	2010-2014	27.3%	3.4%	31.4%	2.3%	29.4%	0.2%	28.5%	0.0%
	2011-2015	27.6%	3.3%	30.8%	2.3%	28.5%	0.2%	27.4%	0.2%
	2012-2016	28.3%	3.3%	29.0%	2.3%	27.5%	0.2%	26.2%	0.2%
	2013-2017	26.1%	3.3%	27.2%	2.3%	26.5%	0.2%	25.3%	0.0%
	2014-2018	26.6%	3.3%	26.8%	2.2%	26.0%	0.2%	24.7%	0.0%
	2015-2019	25.6%	3.5%	25.2%	2.2%	25.7%	0.2%	24.4%	0.0%
	2016-2020	32.5%	4.0%	31.7%	2.6%	16.7%	0.2%	15.4%	0.1%
Percent of households paying ≥50% of income on mortgage (B25091)	2009-2013	7.7%	2.1%	11.0%	1.6%	7.9%	0.1%	7.2%	0.1%
	2010-2014	8.2%	1.9%	10.2%	1.4%	7.4%	0.1%	6.7%	0.0%
	2011-2015	7.6%	1.8%	9.6%	1.4%	7.0%	0.1%	6.2%	0.0%
	2012-2016	9.2%	2.2%	7.7%	1.2%	6.5%	0.1%	5.8%	0.1%
	2013-2017	7.4%	1.9%	6.7%	1.1%	6.3%	0.1%	5.5%	0.1%
	2014-2018	7.7%	1.9%	7.0%	1.2%	6.0%	0.1%	5.4%	0.1%
	2015-2019	6.4%	1.8%	6.9%	1.3%	5.9%	0.1%	5.3%	0.0%
	2016-2020	6.0%	1.8%	7.4%	1.5%	5.8%	0.2%	5.2%	0.1%
Percent of households with more than one occupant per room (B25014)	2009-2013	24.8%	2.9%	24.3%	1.5%	12.1%	0.1%	8.2%	0.1%
	2010-2014	23.1%	2.6%	23.8%	1.4%	12.1%	0.1%	8.2%	0.1%
	2011-2015	23.0%	2.4%	22.3%	1.3%	11.8%	0.1%	8.2%	0.1%
	2012-2016	24.5%	2.4%	22.5%	1.3%	11.8%	0.1%	8.2%	0.1%
	2013-2017	24.9%	2.4%	22.0%	1.3%	11.7%	0.1%	8.2%	0.1%
	2014-2018	25.6%	2.4%	22.6%	1.4%	11.4%	0.1%	8.2%	0.1%
	2015-2019	24.9%	2.5%	22.8%	1.4%	11.3%	0.1%	8.2%	0.1%
	2016-2020	25.7%	2.9%	23.3%	1.7%	11.2%	0.1%	8.2%	0.1%
Percent of households with more than one occupant per room (renters) (B25014)	2009-2013	13.5%	2.2%	19.2%	1.4%	9.3%	0.1%	6.0%	0.0%
	2010-2014	14.1%	2.2%	18.6%	1.3%	9.3%	0.1%	6.0%	0.0%
	2011-2015	14.2%	2.0%	17.5%	1.2%	9.2%	0.1%	6.0%	0.1%
	2012-2016	14.6%	1.9%	17.6%	1.2%	9.2%	0.1%	6.1%	0.0%
	2013-2017	14.1%	1.9%	16.9%	1.2%	9.1%	0.1%	6.0%	0.1%
	2014-2018	14.5%	1.9%	17.7%	1.3%	8.9%	0.1%	6.0%	0.0%
	2015-2019	13.6%	1.9%	17.8%	1.3%	8.8%	0.1%	6.0%	0.1%
	2016-2020	13.3%	2.2%	18.5%	1.6%	8.6%	0.1%	5.9%	0.1%

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households with more than one occupant per room (homeowners) (B25014)	2009-2013	11.3%	1.9%	34.7%	1.5%	2.9%	0.1%	2.3%	0.0%
	2010-2014	8.9%	1.5%	5.2%	0.7%	2.8%	0.1%	2.2%	0.0%
	2011-2015	8.8%	1.4%	4.8%	0.6%	2.7%	0.1%	2.2%	0.0%
	2012-2016	9.9%	1.4%	4.9%	0.6%	2.6%	0.0%	2.1%	0.0%
	2013-2017	10.8%	1.5%	5.1%	0.6%	2.6%	0.0%	2.2%	0.0%
	2014-2018	11.2%	1.5%	4.9%	0.6%	2.6%	0.0%	2.2%	0.0%
	2015-2019	11.3%	1.6%	5.0%	0.6%	2.5%	0.1%	2.2%	0.0%
	2016-2020	12.4%	2.0%	4.8%	0.6%	2.6%	0.1%	2.3%	0.3%
Percent of households in same house 1 year ago (renters) (B07013)	2009-2013	13.5%	2.2%	54.7%	1.7%	40.2%	0.2%	32.7%	0.2%
	2010-2014	42.3%	3.3%	54.7%	1.7%	41.0%	0.2%	33.7%	0.2%
	2011-2015	42.8%	3.0%	55.1%	1.6%	42.0%	0.3%	34.7%	0.2%
	2012-2016	43.1%	2.8%	55.2%	1.6%	42.9%	0.3%	35.4%	0.2%
	2013-2017	42.1%	3.0%	55.2%	1.5%	43.4%	0.3%	35.6%	0.2%
	2014-2018	41.2%	2.9%	55.7%	1.6%	43.9%	0.2%	35.8%	0.2%
	2015-2019	39.9%	3.0%	56.2%	1.5%	44.2%	0.3%	35.9%	0.2%
	2016-2020	41.0%	3.4%	56.4%	2.0%	44.2%	0.3%	35.6%	0.2%
Percent of households in same house 1 year ago (homeowners) (B07013)	2009-2013	49.8%	3.0%	34.7%	1.5%	46.9%	0.3%	52.3%	0.3%
	2010-2014	47.3%	2.6%	35.2%	1.4%	46.3%	0.3%	51.7%	0.3%
	2011-2015	48.7%	2.4%	35.8%	1.4%	45.9%	0.3%	51.3%	0.3%
	2012-2016	49.4%	2.3%	36.0%	1.4%	45.6%	0.3%	51.0%	0.3%
	2013-2017	51.2%	2.7%	36.9%	1.4%	45.9%	0.3%	51.4%	0.2%
	2014-2018	52.6%	2.8%	37.3%	1.5%	45.9%	0.3%	51.6%	0.2%
	2015-2019	55.1%	2.7%	37.1%	1.5%	46.1%	0.3%	52.0%	0.3%
	2016-2020	54.3%	2.5%	37.1%	1.6%	46.5%	0.3%	52.7%	0.2%
Percent of households in same house 1 year ago (w/ income of ≥ $75k) (B07010)	2009-2013	1.5%	0.3%	2.6%	0.3%	10.5%	N/A	12.1%	0.1%
	2010-2014	2.0%	0.4%	2.7%	0.3%	10.6%	N/A	12.3%	0.1%
	2011-2015	2.2%	0.4%	2.9%	0.3%	10.7%	0.1%	12.4%	0.1%
	2012-2016	2.4%	0.4%	3.1%	0.3%	11.2%	0.1%	13.0%	0.1%
	2013-2017	2.8%	0.4%	3.6%	0.3%	11.9%	0.1%	13.8%	0.1%
	2014-2018	3.7%	0.5%	4.2%	0.3%	12.8%	0.1%	14.8%	0.1%
	2015-2019	4.0%	0.5%	4.9%	0.4%	13.8%	0.1%	16.0%	0.1%
	2016-2020	4.4%	0.7%	5.8%	0.6%	14.6%	0.1%	16.8%	0.1%

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	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
% of households in same house 1 year ago (w/ income of < $75k) (B07010)	2009-2013	88.1%	1.4%	86.8%	1.1%	75.9%	N/A	72.2%	0.1%
	2010-2014	87.8%	0.9%	87.0%	0.9%	76.1%	N/A	72.5%	0.1%
	2011-2015	89.8%	0.9%	87.7%	1.0%	76.5%	0.2%	72.9%	0.1%
	2012-2016	90.4%	1.0%	87.9%	1.1%	76.6%	0.2%	72.8%	0.1%
	2013-2017	91.1%	1.2%	88.1%	1.1%	76.5%	0.2%	72.4%	0.1%
	2014-2018	90.9%	1.4%	88.2%	1.0%	76.2%	0.2%	71.8%	0.1%
	2015-2019	91.4%	1.1%	87.9%	1.0%	75.6%	0.2%	71.0%	0.1%
	2016-2020	91.1%	5.4%	87.3%	3.2%	75.3%	0.2%	70.6%	0.1%
Percent of housing units for rent that are vacant (B25002 and B25004)	2009-2013	0.8%	0.6%	3.0%	0.6%	2.3%	0.1%	2.1%	0.1%
	2010-2014	1.7%	0.8%	3.1%	0.5%	2.2%	0.1%	2.0%	0.0%
	2011-2015	1.8%	0.8%	2.7%	0.5%	1.9%	0.1%	1.8%	0.0%
	2012-2016	1.6%	0.8%	2.1%	0.4%	1.8%	0.1%	1.7%	0.0%
	2013-2017	1.2%	0.6%	1.6%	0.4%	1.7%	0.1%	1.6%	0.0%
	2014-2018	0.9%	0.5%	1.5%	0.4%	1.7%	0.1%	1.5%	0.0%
	2015-2019	0.8%	0.5%	1.2%	0.4%	1.8%	0.1%	1.6%	0.0%
	2016-2020	0.6%	0.5%	1.3%	0.4%	1.9%	0.1%	1.6%	0.0%
Percent of housing units for sale that are vacant (B25002 and B25004)	2009-2013	0.8%	0.6%	0.5%	0.2%	0.7%	0.0%	0.9%	0.0%
	2010-2014	0.6%	0.4%	0.4%	0.2%	0.6%	0.0%	0.8%	0.0%
	2011-2015	0.5%	0.4%	0.4%	0.2%	0.6%	0.0%	0.7%	0.0%
	2012-2016	0.6%	0.4%	0.3%	0.2%	0.5%	0.0%	0.6%	0.0%
	2013-2017	0.2%	0.3%	0.2%	0.2%	0.5%	0.0%	0.6%	0.0%
	2014-2018	0.1%	0.2%	0.3%	0.2%	0.5%	0.0%	0.6%	0.0%
	2015-2019	0.6%	0.5%	0.3%	0.2%	0.5%	0.0%	0.6%	0.0%
	2016-2020	0.3%	0.3%	0.3%	0.2%	0.4%	0.0%	0.5%	0.0%

Appendix 6.7: Transportation

Table A6.7.1: American Community Survey (ACS) Transportation Indicators*

	Time Period (ACS 5-Year sample)	Estimate NESFV TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households with a vehicle available (B08201)	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2011-2015	N/A	N/A	N/A	N/A	90.3%	0.3%	92.3%	0.1%
	2012-2016	N/A	N/A	N/A	N/A	90.5%	0.2%	92.4%	0.1%
	2013-2017	N/A	N/A	N/A	N/A	90.8%	0.3%	92.6%	0.1%
	2014-2018	N/A	N/A	N/A	N/A	91.0%	0.3%	92.8%	0.1%
	2015-2019	N/A	N/A	N/A	N/A	91.2%	0.3%	92.9%	0.1%
	2016-2020	N/A	N/A	N/A	N/A	91.2%	0.3%	93.0%	0.1%
Percent of workers commuting to work alone by car (B08301)	2009-2013	68.4%	2.0%	63.4%	1.2%	72.4%	0.1%	73.2%	0.1%
	2010-2014	69.6%	1.8%	64.9%	1.2%	72.6%	0.1%	73.2%	0.1%
	2011-2015	72.0%	2.0%	66.5%	1.2%	73.0%	0.2%	73.4%	0.1%
	2012-2016	72.1%	1.8%	67.4%	1.2%	73.3%	0.1%	73.5%	0.0%
	2013-2017	72.8%	1.9%	69.2%	1.3%	73.7%	0.2%	73.6%	0.1%
	2014-2018	73.2%	2.0%	70.2%	1.1%	73.9%	0.2%	73.7%	0.0%
	2015-2019	72.3%	2.0%	70.7%	1.2%	74.0%	0.2%	73.7%	0.0%
	2016-2020	70.0%	2.7%	69.6%	1.2%	72.1%	0.2%	72.1%	0.1%
Percent of workers commuting to work by carpool (B08301)	2009-2013	19.5%	2.8%	15.7%	1.2%	10.6%	0.1%	11.3%	0.1%
	2010-2014	18.1%	3.4%	15.1%	1.2%	10.3%	0.1%	11.1%	0.1%
	2011-2015	14.2%	1.8%	13.7%	1.1%	9.9%	0.1%	10.8%	0.1%
	2012-2016	14.6%	1.6%	13.4%	1.0%	9.8%	0.1%	10.6%	0.1%
	2013-2017	14.3%	1.6%	13.3%	1.1%	9.6%	0.1%	10.4%	0.1%
	2014-2018	13.1%	1.5%	12.6%	1.0%	9.5%	0.1%	10.3%	0.1%
	2015-2019	14.7%	1.7%	12.7%	1.0%	9.5%	0.1%	10.1%	0.1%
	2016-2020	16.2%	1.8%	13.3%	1.1%	9.5%	0.1%	10.0%	0.1%
Percent of workers commuting to work by public transit (B08301)	2009-2013	5.3%	1.1%	12.0%	1.0%	7.1%	0.1%	5.2%	0.0%
	2010-2014	5.9%	1.3%	11.4%	0.9%	7.0%	0.1%	5.2%	0.0%
	2011-2015	6.4%	1.2%	11.2%	0.9%	6.8%	0.1%	5.2%	0.0%
	2012-2016	6.0%	1.0%	10.7%	0.9%	6.5%	0.1%	5.2%	0.0%
	2013-2017	6.0%	1.1%	9.2%	0.7%	6.3%	0.1%	5.2%	0.0%
	2014-2018	5.7%	1.0%	9.2%	0.8%	6.0%	0.1%	5.1%	0.0%
	2015-2019	5.4%	1.0%	8.4%	0.8%	5.8%	0.1%	5.1%	0.0%
	2016-2020	5.2%	1.3%	7.6%	0.8%	5.4%	0.1%	4.6%	0.0%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by LCI in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence interval.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of workers commuting to work by foot (B08301)	2009-2013	2.3%	0.8%	3.1%	0.5%	2.9%	0.1%	2.7%	0.0%
	2010-2014	1.4%	0.5%	3.1%	0.5%	2.9%	0.1%	2.7%	0.0%
	2011-2015	1.7%	0.6%	3.4%	0.5%	2.8%	0.1%	2.7%	0.0%
	2012-2016	1.7%	0.6%	3.3%	0.5%	2.8%	0.1%	2.7%	0.0%
	2013-2017	1.6%	0.6%	3.2%	0.4%	2.7%	0.1%	2.7%	0.0%
	2014-2018	2.0%	0.7%	2.7%	0.4%	2.7%	0.1%	2.7%	0.0%
	2015-2019	2.0%	0.7%	2.4%	0.4%	2.7%	0.1%	2.6%	0.0%
	2016-2020	2.0%	0.7%	2.0%	0.3%	2.6%	0.1%	2.5%	0.0%
Percent of workers commuting to work by bike (B08301)	2009-2013	0.6%	0.4%	1.2%	0.4%	0.9%	0.0%	1.1%	0.0%
	2010-2014	0.7%	0.4%	0.9%	0.3%	0.9%	0.0%	1.1%	0.0%
	2011-2015	0.7%	0.4%	1.0%	0.3%	0.9%	0.0%	1.1%	0.0%
	2012-2016	0.7%	0.3%	0.9%	0.3%	0.9%	0.0%	1.1%	0.0%
	2013-2017	0.5%	0.3%	0.8%	0.2%	0.9%	0.0%	1.1%	0.0%
	2014-2018	0.4%	0.3%	0.7%	0.2%	0.8%	0.0%	1.0%	0.0%
	2015-2019	0.3%	0.2%	0.7%	0.2%	0.8%	0.0%	1.0%	0.0%
	2016-2020	0.1%	0.1%	0.4%	0.2%	0.7%	0.0%	0.8%	0.0%
Percent of workers commuting to work by other modes: taxicab, motorcycle, and other (B08301)	2009-2013	1.0%	0.5%	1.5%	0.4%	1.2%	0.0%	1.3%	0.0%
	2010-2014	1.5%	0.6%	1.6%	0.3%	1.3%	0.0%	1.3%	0.0%
	2011-2015	1.8%	0.7%	1.7%	0.4%	1.4%	0.0%	1.4%	0.0%
	2012-2016	2.4%	0.8%	1.8%	0.4%	1.4%	0.0%	1.4%	0.0%
	2013-2017	2.8%	0.8%	1.6%	0.3%	1.5%	0.0%	1.5%	0.0%
	2014-2018	3.7%	0.9%	1.6%	0.3%	1.6%	0.0%	1.6%	0.0%
	2015-2019	3.1%	0.8%	1.7%	0.3%	1.6%	0.0%	1.6%	0.0%
	2016-2020	3.5%	1.0%	1.7%	0.3%	1.7%	0.1%	1.6%	0.0%

Table A6.7.2: Plug-in Electric Vehicle (PEV) Registrations[13]

Indicator	Dataset Year	Gross Number			Normalized per 10,000 Residents		
		NESFV TCC Census Tracts	Control Census Tracts	Los Angeles County	NESFV TCC Census Tracts	Control Census Tracts	Los Angeles County
Battery electric vehicle (BEV)	2020	52	276	83,209	12.0	19.8	82.9
	2019	45	194	67,509	8.2	13.8	67.7
	2018	27	138	49,566	4.8	10.0	49.1
	2017	23	115	37,977	4.0	8.3	37.6
	2016	18	100	29,370	3.2	7.3	29.2
	2015	11	88	20,516	2.0	6.5	20.4
Plug-in hybrid electric vehicle (PHEV)	2020	72	318	61,854	16.5	22.9	61.6
	2019	78	288	58,563	14.3	20.5	58.7
	2018	61	235	49,027	10.9	17.0	48.6
	2017	30	108	25,777	5.3	7.8	25.5
	2016	33	103	26,648	6.0	7.5	26.5
	2015	19	70	21,547	3.5	5.2	21.5
Fuel cell vehicle (FCEV)	2020	1	9	2,339	0.2	0.6	2.3
	2019	0	8	2,165	0.0	0.6	2.2
	2018	0	7	1,592	0.0	0.5	1.6
	2017	0	1	174	0.0	0.1	0.2
	2016	0	0	344	0.0	0.0	0.3
	2015	0	0	57	0.0	0.0	0.1
Total EV registrations	2020	125	603	147,402	28.7	43.3	146.8
	2019	123	490	128,237	22.5	34.9	127.2
	2018	88	380	100,185	15.7	27.5	99.2
	2017	53	224	63,928	9.3	16.2	63.3
	2016	51	203	56,362	9.2	14.8	56.0
	2015	30	158	42,120	5.5	11.7	42.0

[13] EV registration data were obtained by request from the CARB Online Fleet Database. The EV registration data were normalized with 2017 and 2015 five-year ACS data.

Table A6.7.3: Publicly Available Charging Infrastructure[14]

Indicator	Dataset Year	Gross Number			Normalized per 10,000 Residents		
		TCC Census Tracts	Control Census Tracts	Los Angeles County	TCC Census Tracts	Control Census Tracts	Los Angeles County
Level 2 Stations	2021	7	15	3,073	1.6	1.1	3.1
	2020	8	15	1,680	1.5	1.0	1.7
	2019	2	7	659	0.2	0.5	0.7
	2018	1	7	857	0.2	0.5	0.7
	2017	0	4	745	0	0.3	0.7
	2016	0	1	644	0	<0.1	0.6
	2015	0	2	547	0	<0.1	0.6
DC Fast-Charging Stations	2021	0	0	250	0	0	0.3
	2020	0	0	201	0	0	0.2
	2019	0	0	125	0	0	0.1
	2018	0	0	102	0	0	0.1
	2017	0	0	103	0	0	0.1
	2016	0	0	94	0	0	<0.1
	2015	0	0	61	0	0	<0.1

14 Charging station data were obtained by request from the Alternative Fuels Data Center (AFDC), a resource administered by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Office. Each dataset includes active stations and does not include stations that have previously opened and closed. In other words, each dataset is a snapshot of currently active stations in that year (taken during fall of each year). The charging station data were normalized with five-year ACS data for the respective year.

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