Title

Watts Rising: 2023 Progress Report on Implementation of the Transformative Climate Communities Program Grant

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WATTS RISING

2023 PROGRESS REPORT ON IMPLEMENTATION OF THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM GRANT

UCLA Luskin Center for Innovation

Prepared by the UCLA Luskin Center for Innovation

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Disclaimer

The UCLA Luskin Center for Innovation appreciates the contributions of the aforementioned agencies. This report, however, does not necessarily reflect their views nor does it serve as an endorsement of findings. Any errors are those of the authors.

For More Information

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Cover image: Volunteers at the Watts Rising Green Alley Community Work day in April 2022 (Photo credit Watts Rising Collaborative).

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EXECUTIVE SUMMARY

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM (TCC) is an innovative 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. At the time of this report, SGC has awarded 11 TCC implementation grants to 11 communities across the state (ranging from $9.1 million to $66.5 million per site). Additionally, SGC has awarded 25 TCC planning grants to communities that are in the early stages of forming a coalition to address local climate action goals (ranging from $94,000 to $300,000 per site). The state legislature has allocated funding to distribute two additional rounds of TCC grants.[1]

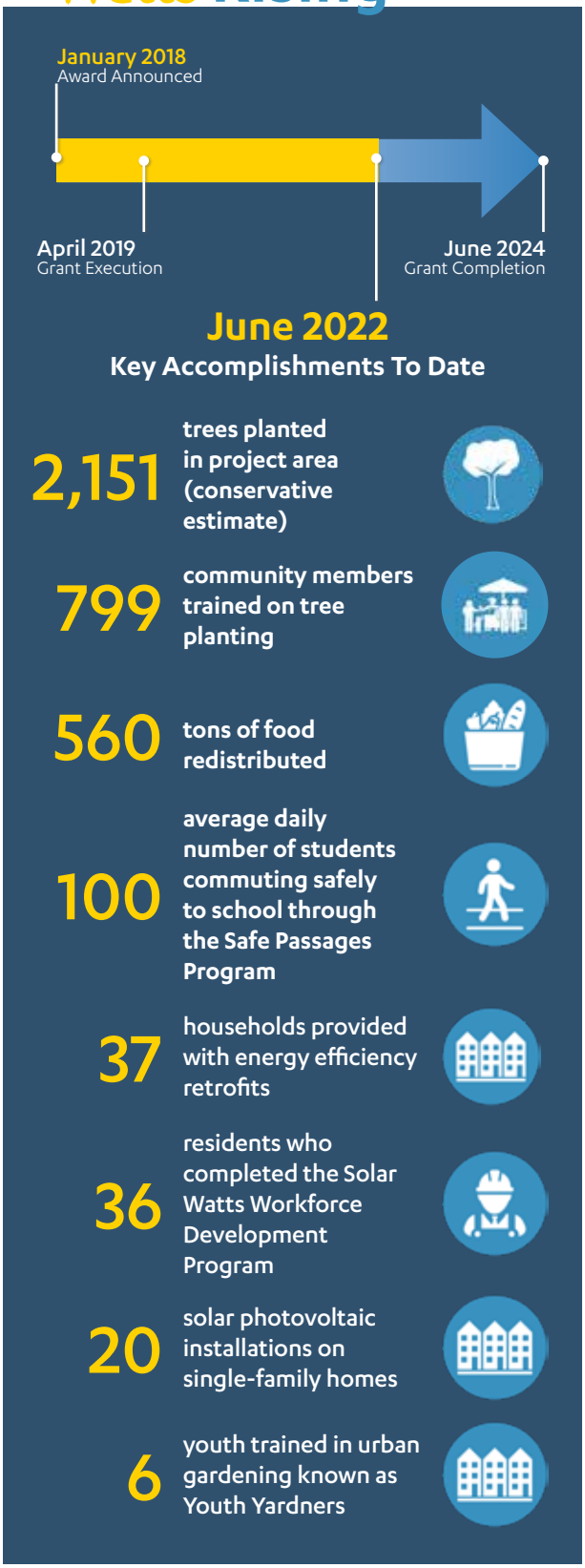
The UCLA Luskin Center for Innovation (LCI) serves as the lead evaluator in five communities that have received TCC implementation grants: all three Round 1 sites (Fresno, Ontario, and Watts), one Round 2 site (Northeast San Fernando Valley), and one Round 3 site (Stockton). LCI researchers are working with these communities to document their progress and evaluate the impacts of TCC investments.

This progress report is the fourth in a series of five that will provide an overview of the key accomplishments and estimated benefits of TCC-funded activities in Watts, collectively referred to as Watts Rising.[2] This specific report documents progress through the end of FY 2021-2022, which overlaps with about 14 months of post-award planning (January 2018 to March 2019), and 38 months of grant implementation (April 2019 through June 2022). The majority of implementation has occurred during the COVID-19 pandemic, so project partners' responses to the pandemic are also highlighted throughout.

[1] For the most current information about TCC rounds, both current and future, visit: https://sgc.ca.gov/programs/tcc/

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

Watts Rising



Community Members at Watts Healthy Harvest in November 2021. Photo credit: Watts Rising Collaborative.

Watts Today

Watts is a vibrant neighborhood of about 40,000 residents in the southeastern part of the City of Los Angeles. The neighborhood has a long history of community organizing and is home to the Watts Towers and other homegrown arts and cultural landmarks. Watts is also located near many sources of air pollution, including the intersection of Interstate 110 and 105, near rail and truck routes for the Port of Los Angeles, and under the flight path of Los Angeles International Airport. In addition, Watts residents face limited access to fresh food, affordable housing, and sufficient tree canopy. These and other sources of public health concerns in the neighborhood are being exacerbated as a result of climate change and more extreme heat days. The Watts TCC grant seeks to address these environmental and economic challenges through a suite of coordinated projects, including developing low-carbon transportation options, constructing affordable housing, planting thousands of trees, and supporting other amenities that respond to community needs.

Watts Rising

In 2017, the Housing Authority of the City of Los Angeles (HACLA) led efforts to submit a TCC grant. The grant was designed to support the following identified environmental and public health goals: (1) reduce local sources of air pollution, (2) improve public health outcomes and address health disparities, (3) prevent displacement and its impact on physical and mental health, (4) address and mitigate greenhouse gas (GHG) emissions sources and exposure to pollution, and (5) create safe and secure public spaces. Furthermore, the following economic goals were identified: (1) access to job training, (2) access to high-quality jobs and careers, (3) support and expansion of local businesses and organizations, (4) helping youth identify and prepare for careers in GHG-reduction fields, and (5) empowering and educating residents to advocate for greater equity and provision of municipal services.

HACLA hosted public meetings attended by residents and other key stakeholders to solicit input on project prioritization for the TCC grant in support of the identified goals. Engagement efforts resulted in Watts Rising, a community-driven plan and initiative to transform a 2.2-square-mile area of the city through a suite of projects and plans that will reduce GHG while also providing local environmental, health, and economic co-benefits. In early 2018, SGC awarded $33.3 million to the Watts Rising Collaborative as part of TCC. Watts Rising also leverages $169.8 million in outside funds to support this vision. Along with Fresno and Ontario — two other sites awarded Round 1 TCC funding — Watts is serving as one of the first communities in the country to pilot a community-led, multibenefit, and place-based climate change mitigation program that specifically targets the needs of low-income households.

Projects

Watts Rising includes 23 projects, 17 of which are funded by TCC dollars and six of which are funded by leveraged dollars. The TCC-funded and leveraged projects work synergistically to achieve the broad goals of TCC. The TCC-funded projects and leveraged projects are consolidated into seven distinct project types below:

TCC-funded Projects

Affordable Housing and Sustainable Communities — Funds the construction of an 81-unit affordable housing development. Increasing the density of housing aims to reduce vehicle miles traveled (VMT), along with lowering housing costs and travel costs for Watts residents. This project will also plant trees that sequester carbon and provide shading benefits. Additionally, this program will provide bicycle safety and education courses that promote clean modes of transportation.

Food Waste Prevention and Rescue — Funds the development of a food rescue program that redistributes unsold food from a local produce market to the community at regular events, increasing the accessibility of fresh produce for consumption and reducing the amount of food waste. Rescued food that is unable to be redistributed is turned into compost that can be used locally for gardening and urban greening applications. This process helps to divert the amount of organic material sent to landfills, where it decomposes in the absence of oxygen and releases methane, a potent GHG.

Low-Carbon Transportation — Increases the fleet of electric vehicles (EV) for use by Watts residents, offsetting the miles driven by cars that run on fossil fuels.

Rooftop Solar and Energy Efficiency — Funds two projects aimed at installing no-cost rooftop solar systems and energy efficiency measures for residential homes. The projects will enhance local renewable energy generation, reduce the need to generate electricity via fossil fuels, and lower energy costs for property owners.

Transit Operations — Electrifies the bus fleet that travels through the project area, and increases the frequency of bus service. The transit operation project aims to improve transit ridership and reduce vehicle miles traveled.

Urban and Community Forestry — Funds the planting of 2,250 trees. 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.

Urban Greening — Funds the planting of 475 trees and makes bicycle and pedestrian improvements. Similar to urban and community forestry projects, urban greening projects result in the sequestration of carbon through maturing trees and provide shading benefits. Bicycle and pedestrian improvements aim to reduce car travel by improving alternative transportation options.

Leveraged Projects

Affordable Housing and Sustainable Communities — Funds the construction of a 135-unit affordable housing development. A 31,299-square-foot grocery store has also been constructed nearby. Together, these investments increase the density of the neighborhood and accessibility of local shopping options, which aim to reduce vehicle miles traveled, along with lowering housing costs for Watts residents. Additionally, these two projects will plant 380 trees.

Urban Greening and Active Transportation — Funds the planting of 346 trees and other native plant species. Additionally, these projects make bicyclist and pedestrian improvements to over a mile of streets in Watts. These projects result in the sequestration of carbon through maturing trees and provide shading benefits. Bicycle and pedestrian enhancements aim to reduce car travel by improving alternative transportation options.

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 project and to minimize unintended harms. Specifically, grantees were required to develop a community engagement plan, workforce development plan, and displacement avoidance plan. Respectively, 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. In the case of Watts Rising, these three plans have been adapted in the following ways:

Community Engagement Plan

- » **Create** the Watts Rising Community Advisory Group, the advisory body for Watts Rising, composed of:
  - Key stakeholder representatives
  - Watts residents
  - Business owners
  - Community leaders
- » **Conduct** multimedia communications
- » **Coordinate** individual project outreach
- » **Deploy** an annual survey

Workforce Development Plan

- » **Connect** residents with training and educational opportunities that provide them with new skills, including:
  - Training 28 residents on electric vehicle topics
  - 20 paid internships on solar installations projects
- » **Place** residents in employment opportunities on TCC and leveraged projects, including:
  - 150 construction and clean energy jobs

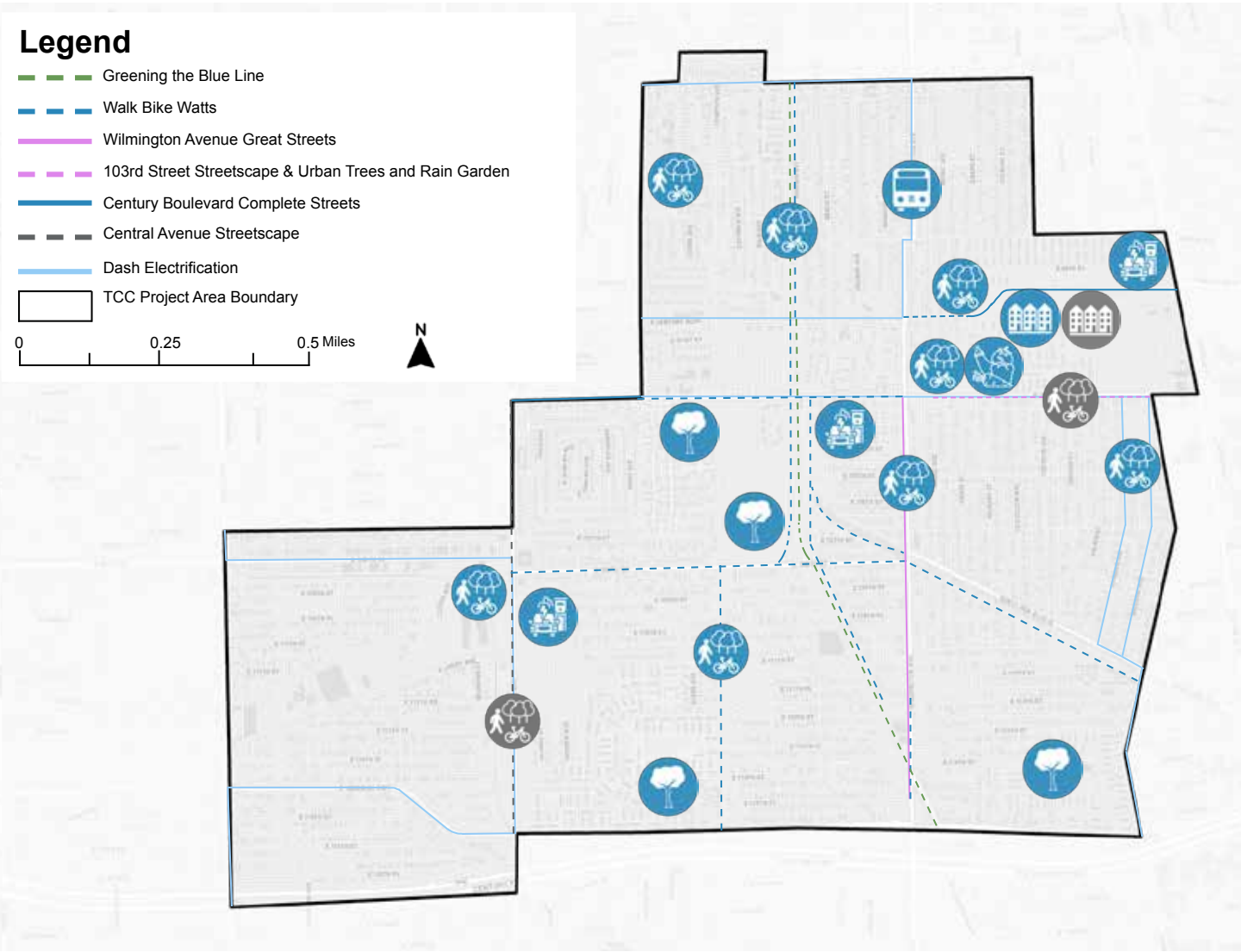
Displacement Avoidance Plan

- » **Produce** and preserve affordable housing in part by:
  - Constructing new housing
  - Facilitating policy interventions to make affordable housing more accessible
  - Promoting housing preservation finance tools and housing units that are available
- » **Protect** tenure of existing residents, in part by convening at least three workshops on each of the following topics:
  - Financial literacy
  - Homeownership and foreclosure prevention
  - Resident organizing
  - Tenant leadership training
  - Tenants' rights
- » **Retain** local small business community, in part by convening at least three workshops on each of the following topics:
  - Contracting opportunities for small businesses
  - Small business assistance and access to capital services

Project Area

The Watts Rising project area was configured to bring investment to one of the state's most disadvantaged neighborhoods. All census tracts within the project boundary area are defined as disadvantaged according to CalEnviroScreen 3.0 (about 65% of the project area ranks within the top 5%). The project area boundary was also drawn to connect key assets within those census tracts. **Figure 1** shows where TCC-funded projects and leveraged projects will be located within the project area. See **Appendix 1, page 94)** for a more detailed map that includes assets located within the project area.

Figure 1. Project Area Map With Locations of Projects*



***See the previous two pages for information about what each project icon represents. This map does not include statewide projects or plans (e.g., rooftop solar installations, community engagement, etc.).**

Figure credit: UCLA Luskin Center for Innovation

Anticipated Benefits

Watts Rising is slated to bring a number of benefits to residents of the TCC project area. The infographic below highlights some 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 Watts Rising 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.

Project Outputs

- **5** miles of bike lanes constructed
- **10** new buses powered by electricity
- **154** kW of solar power on affordable multi-family developments and single-family homes
- **1.2** miles of a cultural trail and sidewalk improvements
- **324** tons of edible food rescued and donated
- **40** residents trained in solar photovoltaic installation
- **81** new housing units (80 affordable)
- **2,750** new trees that will provide shade for buildings and sidewalks
- **30** residents trained on EV-related topics

Outcomes and Impacts*

- **61,732** metric tons of avoided GHG emissions**
- **$8,741,303** in travel cost savings for residents who shift their travel modes
- **29,915,562** gallons in avoided stormwater runoff
- **31,778,586** miles of averted travel in passenger vehicles annually
- **$3,602,265** in energy cost savings for solar photovoltaic and street tree beneficiaries
- **153** direct jobs
  70 indirect jobs, and
  113 induced jobs***

* See Appendix 2 for a summary of estimation methods. Benefits are reported as totals over the operational period of the projects, also referred to as project lifetimes. Estimated benefits were based on original anticipated project outcomes and will be updated at the conclusion of the evaluation to reflect actual project outcomes.

** All GHG emissions are reported as metric tons carbon dioxide equivalent.

*** All jobs are reported as full-time equivalent (FTE) and only represent jobs supported by TCC funding.

Harder to quantify, but nevertheless important, is the leadership and collaboration capacity that will be created in Watts 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 Watts. In addition, lessons learned and best practices from Watts TCC could inform local climate action and investments well beyond the TCC project area.

Cumulative Accomplishments

Community members at Veggies and Vehicles event in September 2019. Photo credit: Watts Rising Collaborative

Much has happened after the announcement of Watts' TCC award in 2018. From that announcement through the close of the 2021-2022 fiscal year (June 30, 2022), a period of three and a half years, project partners have made considerable progress toward implementing an ambitious, unprecedented climate action initiative.

Key accomplishments of Watts Rising 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 April 2019, when HACLA executed its grant agreement with the California Strategic Growth Council. In light of the challenges of the pandemic, the grant implementation period for Round 1 grantees has been extended (from June 2023 to July 2024 in Watts).

Post-Award Consultation (January 2018 – March 2019)

Formalized Partnerships and Governance Structure

HACLA formed a number of partnerships in the community to facilitate TCC implementation. Many of these community partnerships were formed during the TCC application process and since grant execution have been institutionalized in the form of the Watts Rising Community Advisory Group and Working Groups.

The Watts Rising Community Advisory Group is the counseling body that provides oversight and consultation to the myriad of Watts Rising partners. The Community Advisory Group includes Watts residents, businesses, and other community-based organizations. Starting with the first kickoff meeting in May 2019, the Community Advisory Group holds monthly meetings open to the public.

Watts Rising's Working Groups are organized around the following similar project themes: 1) community engagement, 2) data, 3) displacement avoidance, 4) city oversight, and 5) workforce development (facilitated by Jordan Downs Forward working group). Members focus on implementing one or more work plans in those five thematic areas (see **Appendix 3, page 97,** for more detail on this structure).

Grant Implementation (April 2019 – June 2022)

Strengthened Community Capacity

Community capacity is broadly defined as the ability of local communities to develop, implement, and sustain their own solutions to societal challenges, including but not limited to climate change. Through investment in both physical and social capital, TCC has strengthened community capacity in Watts, as evidenced by several case studies that can be found later in the report. For example, the Watts Street Team, a group of local residents paid to lead community outreach, has empowered locals to build their leadership, public speaking and team-working skills (see **page 29** for the perspectives of two Watts Street Team members). Similarly**,** North East Trees' urban greening projects hire directly from the Watts community, exposing

residents to the nuts and bolts of planting and maintaining trees, as well as strategies of building trust with residents who are skeptical of the benefits of street trees. For a case study on how two Watts residents, now part of North East Trees Watts Crew, have gained urban forestry skills for future careers in environmental conservation, see **page 31.**

Purchased Buses That Can Run on Renewable Energy

TCC funds paid for the incremental costs of upgrading from a compressed natural gas bus to a fully electric bus. For this project, 10 battery-electric buses and five charging stations will be installed. Unlike conventional natural gas that is derived from fossil fuel sources, renewable energy is sourced from waste management facilities such as landfills, waste water treatment plants, and food digesters. When bus manufacturing completes, the 10 buses will be put into service along existing transit routes that service the TCC project area, thereby reducing GHG emissions from local transit operations.

Provided Electric Charging Infrastructure to Residents

With respect to electric infrastructure, there were three Level-2 electric vehicle (EV) chargers and two DC fast chargers installed within the project area. In total, there has been 14,259 kWh of actual energy usage from EV charging infrastructure so far. The host site, Jordan Down Retail Center, a leverage project, was completed in October 2020. TCC leverage funds constructed the grocery store portion of the center which will provide additional fresh food options. To learn more about Watts Rising leverage projects, see **page 72.**

Brought Solar Power to Low-Income Households

Through the end of FY 2021-2022, project partners installed 20 solar photovoltaic systems across the project area, totaling 62 kilowatts of DC-rated power. All systems installed benefited low-income homeowners, thereby providing financial relief in the face of rising energy costs. For a case study on two families who have obtained such relief, see **page 33**.

Retrofitted Homes to Use Less Energy and Water

Project partners also ramped up energy and water efficiency installations during the reporting period. A total of 37 single-family units were retrofitted through FY 2021-2022. Over 300 different types of energy efficiency measures have been installed thus far. These energy efficiency improvements could include low-flow faucets and shower heads, LED lighting, and more. These measures will reduce energy cost burdens for low-income families and result in lower monthly household utility bills.

Increased Urban Tree Cover

Milestones for TCC-funded tree planting efforts include the planting of over 2,000 trees throughout the project area. Additionally 1,000 trees have been distributed to residents within the project area. Another project accomplishment is North East Trees' conclusion of their Greening Public Housing project, successfully planting 200 trees at three HACLA public housing properties. Another accomplishment comprised 200 trees planted at the 1103rd Street/Rosa Parks Station of the LA Metro A Line. A total of 799 community volunteers were trained on tree planting at these events. The additional tree coverage will replace concrete and provide thermal comfort during extreme heat days.

Key Accomplishments Through June 2022

Partnership Formation

- An executed grant agreement with clearly defined work plans, partner roles, deliverables, and reporting expectations for each project and plan
- The development of an evaluation plan, in collaboration with LCI, for tracking the outputs and outcomes from each project and plan
- Establishment of the Watts Community Advisory Group, a collaborative stakeholder structure for coordinating grant governance
- Created working groups within the Watts Rising collaborative to focus on project themes

Electric Bus and Charging Infrastructure

- **10** renewable natural gas buses in production
- **3** Level-2 EV chargers and 2 DC fast chargers installed; totaling 14,259 kWh of actual energy usage from installed EV charging infrastructure

Renewable Energy Access

- **20** solar photovoltaic installations on properties occupied by low-income households, totaling about 62 kilowatts of DC-rated power

Energy and Water Saving Measures

- **300** types of energy efficiency measures installed in
- **37** households provided free energy and water efficiency upgrades

North East Trees' Ladale Hayes planting at Gonzaque Village in September 2022. Photo credit: UCLA Luskin Center for Innovation

Redirected Healthy Food From Landfills to Residents

Project partners at MudTown Farms redistributed 367 tons of food directly to community members and 193 tons through partner agencies such as churches and community service organizations. This has served 13,526 residents in the community. Food that cannot be redistributed is used for compost and by the end of FY 2021-2022 about 27,500 pounds of green waste was utilized. For more a case study about MudTown Farms impact on the Watts community during the pandemic and beyond, see **page 35**.

Expanded the Skills of Watts' Labor Force

Guided by Watt Rising's Workforce Development Plan, project partners are offering a range of job training opportunities in fields that are needed for climate resilience. These fields include EV maintenance and solar panel installation. Thus far, 36 residents have received training with GRID Alternatives' workforce program. In the next year, project partners will ramp up the Mega Watts Project and hire local residents for program maintenance and training.

Deepened Community Outreach and Engagement

Outreach and community engagement efforts commenced both sitewide and at the project level. A key component of the Watts Rising initiative is involving community members in projects. The Watts Rising Community Engagement Plan and each TCC-funded project specifies activities taken to involve the community throughout the grant period. These include hosting events, organizing educational workshops, and recruiting residents as volunteers, trainees, or hired staff. These events had almost 800 attendees combined.

In 2021, the Watts Rising Collaborative created a Street

Key Accomplishments Through June 2022

Urban Greenery

- **2,151** trees planted within the project area (conservative estimate)
- **799** community volunteers trained on tree planting
- **38** tree care and maintenance trainings events held

The Watts Labor Force

- **9** local youth trained and hired by North East Trees
- **6** Youth Yardners trained to garden

Healthy Food Access

- **13,526** participants served in MudTown Farms' food redistribution program
- **560** tons of food redistributed directly and through partner agencies

Workforce Development

- **43** participants have been recruited for GRID Alternatives' workforce development program
- **36** participants completed the program and were awarded program certificates

Team, comprising Watts residents, tasked with conducting community outreach, providing consultation for individual projects as needed, and organizing community events to encourage broader community involvement. The Street Team consists of six individuals working as independent contractors with HACLA, with strong connections to a variety of different constituencies in the Watts community including schools, community gardens, youth development, and public housing. For a case study on two members of the Watts Street Team's work around the community see **page 29**.

Every month, Watts Rising hosts a public community forum to listen to partners about the ongoing development of each specific project. The forum is also a space for residents to voice their opinions, ideas, and thoughts about each project. Through FY 2021-2022, these meetings were moved online due to the ongoing COVID-19 pandemic. These monthly meetings generate an average of 40 participants per online meeting.

Coordinated Efforts to Mitigate Displacement

While Watts Rising's Displacement Avoidance Plan (DAP) is not funded by TCC, it has formalized coordination among TCC partners around this critical issue. It is important to note that project partners are coordinating their efforts to address the *indirect* effects of TCC investments on displacement, as TCC projects will not directly displace any residents or businesses (all new infrastructure will be located on vacant land or within the public right of way).

In service of increasing affordable housing supply, the Watts Rising initiative is expanding and renovating existing public housing at Jordan Downs, a 700-unit subsidized

Key Accomplishments Through June 2022

Community Engagement

- **1,700** stakeholders engaged on Watts Rising social media platforms such as Instagram and Facebook
- **17** community outreach and engagement events in English and in Spanish held for Weigand Elementary Urban Trees/Rain Gardens with 546 attendees combined
- **10** residents serve on the Watts Rising Community Advisory Group
- **4** community outreach and engagement events where 58 community members attended for WalkBike Watts project
- **4** community events in English and in Spanish for Jordan Downs residents, park users, and Watts families to inform the development and design of Freedom Tree Park
- **3** community events in English and in Spanish for Watts community members to inform the development and design of Century Gateway Park
- **1** community gardening day and 1 harvest festival with more than 100 attendees engaged for Watts Community Tech Garden and Heart of Watts garden

Urban Peace Institute's Leadership Institute graduation ceremony in September 2022. Photo credit: Urban Peace Institute

housing development in the TCC project area. With TCC-funded and leveraged dollars, there will be new construction of affordable housing units that will be restricted to households earning below 50% of Area Median Income. To learn more about leveraged funds securing the redevelopment of Jordan Downs, see **page 72**.

To further protect local residents, former Mayor Eric Garcetti's Office (Mayor's Office) and Watts Century Latino Organization provided a number of workshops and trainings on topics including legal services, tenant resources and rights, resident organizing, homeownership, foreclosure prevention, financial education, and financial literacy. Workshops for small businesses cover contracting opportunities, available services and opportunities such as the BusinessSource Center's and Macedonia Community Development Corporation's business training and micro-lending opportunities.

Adapted COVID-19 Pandemic Solutions

After the COVID-19 pandemic hit, project implementation had to adapt. Watts Rising project partners creatively modified their project activities to support the community through this challenging period and to adhere to public health guidelines. For example, Food Recovery and Waste Reduction partner MudTown Farms ensured that food distribution followed COVID-19 public health safety guidelines by pre-bagging produce and distributing it through a drive-through process. Project partners were able to engage community members at tree planting and care events with social distancing and face masking measures when Los

Key Accomplishments Through June 2022

Residential Displacement Avoidance

- **300** residents invited to workshops about affordable housing opportunities
- **200** community members accessing case management sessions and/or referrals
- **96** participants in tenants' rights English and Spanish education classes
- **45** participants attended No Place Like Home Renter and Homeowner Resource Event
- **3** tenants rights education classes in both English and Spanish with about 96 participants
- **2** workshops held to inform residents about affordable housing opportunities

Commercial Displacement Avoidance

- **190** attendees at four small business workshops
- **165** businesses connected to resources and programs
- **45** individuals attended the 2nd annual Minding Your Business: Watts Small Business Summit
- **6** different types of small business anti-displacement surveys distributed

Watts Century Latino Organization hosts Watts Housing Clinic in March 2022. Photo credit: Watts Rising Collaborative

Watts Rising Collaborative hosts in-person event, Watts Healthy Harvest, in November 2021. Photo credit: Watts Rising Collaborative

Angeles County's Safer-At-Home measures lifted.

Watts Rising used social media to disperse information about ongoing food distribution, COVID-19 testing and vaccination sites, and health resources available. Similarly, most project partners shifted to an online format for community engagement meetings with community members.

While the pandemic shifted methods of achieving project deliverables, there were a few projects delayed due to COVID-19. Most notably, Los Angeles Department of Transportation's E-DASH Bus manufacturing has been heavily stalled due to factory closures.

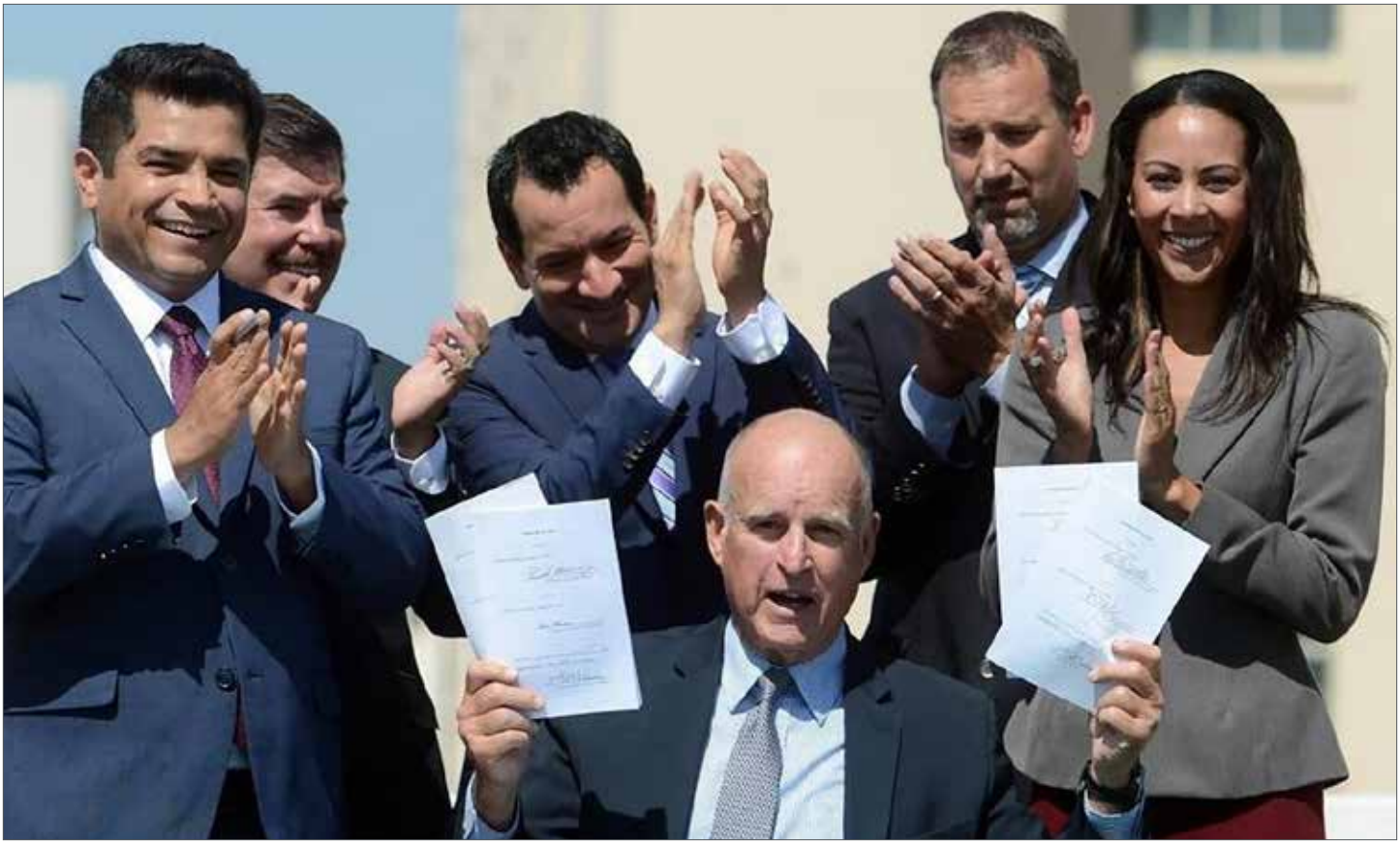
More notable implementation pivots are detailed on the right. For more detail on how Watts Rising responded to COVID-19, see individual project and plan profiles in the following chapters, as well as stories from project partners on **page 36**.

Key Accomplishments Through June 2022

Pandemic Responses

- Various food recovery and food waste prevention partners distributed fresh produce to alleviate food insecurity at the start of spring through summer 2020.
- Watts Rising project partners, even those whose focus is not food recovery, teamed up to distribute food to the community by providing COVID-19 public health safety guidance to those coming to collect food.
- Majority of project partners moved their community engagement meetings online and used them as a platform to disseminate critical public health information about the pandemic.
- Urban greening, energy and solar project partners use social media to inform community members about free trees, solar panels, and energy efficiency resources available to residents.

BACKGROUND



Former Governor Jerry Brown in Fresno signs a package of climate change bills in September of 2016, including Assembly Bill 2722, which was authored by Assembly member Autumn R. Burke (at right) and established the Transformative Climate Communities 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.[3] 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.

[3] 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, TCC requires that all grant applicants identify a project area that will be the focus of their TCC proposal. Proposals must be borne out of a robust community engagement process that brings together residents and stakeholders toward 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.

Lastly, 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's 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 four rounds of awards. During Round 1, which was tied to fiscal year (FY) 2016-2017 funding, $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, $46 million was allocated to implementation grants, and $800,000 was allocated to planning grants. For Round 3, which was tied to FY 2019-2020 funding, $48 million was allocated to implementation grants and $600,000 was allocated to planning grants. Last, for Round 4, which was tied to FY 2021-2022 funding, $94 million was allocation to implementation grants and $2 million was allocated to planning grants. Table 1 provides an overview of the implementation and planning grants that have been distributed through FY 2021-2022.

Table 1: Overview of TCC Implementation and Planning Grants Through FY 2021-2022

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 - East Side	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
Richmond	Round 4 (FY 2021-2022)	Implementation	$35 million
South Los Angeles	Round 4 (FY 2021-2022)	Implementation	$35 million
South Stockton	Round 4 (FY 2021-2022)	Implementation	$24.2 million
San Diego - Spring Valley	Round 4 (FY 2021-2022)	Planning	$300k
Karuk Tribe	Round 4 (FY 2021-2022)	Planning	$300k
Monterey - Pájaro Valley	Round 4 (FY 2021-2022)	Planning	$300k
Chicken Ranch Rancheria and Jamestown	Round 4 (FY 2021-2022)	Planning	$217k
Tulare County	Round 4 (FY 2021-2022)	Planning	$300k
Hoopa Valley Indian Reservation	Round 4 (FY 2021-2022)	Planning	$300k
Wiyot Tribe	Round 4 (FY 2021-2022)	Planning	$300k

California Strategic Growth Council staff, CalEPA secretary, CalTransportation secretary, and Governor's Office representatives and Watts Rising stakeholders at a site visit. February 2023. Photo credit: @SGC | CA Strategic Growth Council on Twitter

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 grants.[4]

After the publication of the Round 1 evaluation plan, the UCLA-UCB evaluation team entered a second contract with SGC to serve as the third-party evaluator in all three Round 1 sites. The UCLA Luskin Center for Innovation (LCI) is now the sole contractor in that role and will continue as such for the first five years of TCC Round 1 grant implementation (2019 through 2024).

For Rounds 2 and 3 of the program, each TCC site selected a third-party evaluator from a list of qualified evaluation technical assistance providers that were preapproved by SGC through an open application process. LCI was selected to serve as the evaluator for the Round 2 grant in Northeast Los Angeles (Pacoima) and the Round 3 grant in Stockton.

LCI's evaluation plans for Rounds 2 and 3 closely follow the evaluation plan from Round 1, with some site-specific modifications to reflect each site's unique set of projects, goals, and priorities for data tracking. These modifications were made in close consultation with the project partners in each TCC site.

Conceptual Framework for Evaluating TCC

Logic models greatly informed all of the evaluation 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 stakeholders' knowledge, attitude, and skills
- **Intermediate Outcomes:** Changes in stakeholders' behaviors, practices, or decisions
- **Impacts:** Changes in environmental or human conditions that align with the objectives of TCC (i.e., GHG reductions; public health and environmental benefits; and economic opportunities and shared prosperity).

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 TCC Round 1 evaluation plan summarizes the

[4] 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

final list of indicators adopted by SGC for Fresno, Ontario, and Watts.[5] 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; and (2) 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. When 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 Round 1).

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).[6]

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 socioeconomic 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, page 84,** for a list of census tracts that will be used as a proxy for Watts' TCC 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, page 85,** for a list of census tracts that will be used as control sites for evaluating the impacts of TCC investment in Watts.

» **County:** The county in which TCC sites are located (Los Angeles County for Watts). 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 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.

[5] **Ibid.**

[6] **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**

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,page 86,** for the latest indicator data the LCI has collected.

Qualitative Methods for Evaluating TCC

Many of the potential benefits of TCC likely will be missed by the quantitative methods previously described. For example, improvements in well-being, community capacity to tackle new challenges, and communication across diverse stakeholder groups are difficult to describe in numerical terms. Thus, to capture some of the nuanced effects that TCC may have at the individual and community level, the LCI evaluation team will analyze qualitative data collected from surveys, interviews, and focus groups.[7]

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. 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 1 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 and quantitative research 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, titled "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.

Evaluation Activities in Watts Through June 2022

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 Watts Rising's first annual progress report, titled *Watts Rising: A Baseline and Progress Report on Early Implementation of the TCC Grant*. The underlying data for analyzing baseline trends are also included in **Appendix 6, page 86,** 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 2024 progress report.

With respect to qualitative data collection, the LCI evaluation team has disseminated two surveys in all three Round 1 sites: (a) one focused on outcomes from community engagement activities and (b) one focused on outcomes from workforce development activities. The LCI evaluation team substantially revised the survey instruments from the versions posted in the 2018 evaluation plan, improving their legibility and reducing their completion time. The surveys have been made available in both English and Spanish, and in print and online formats.

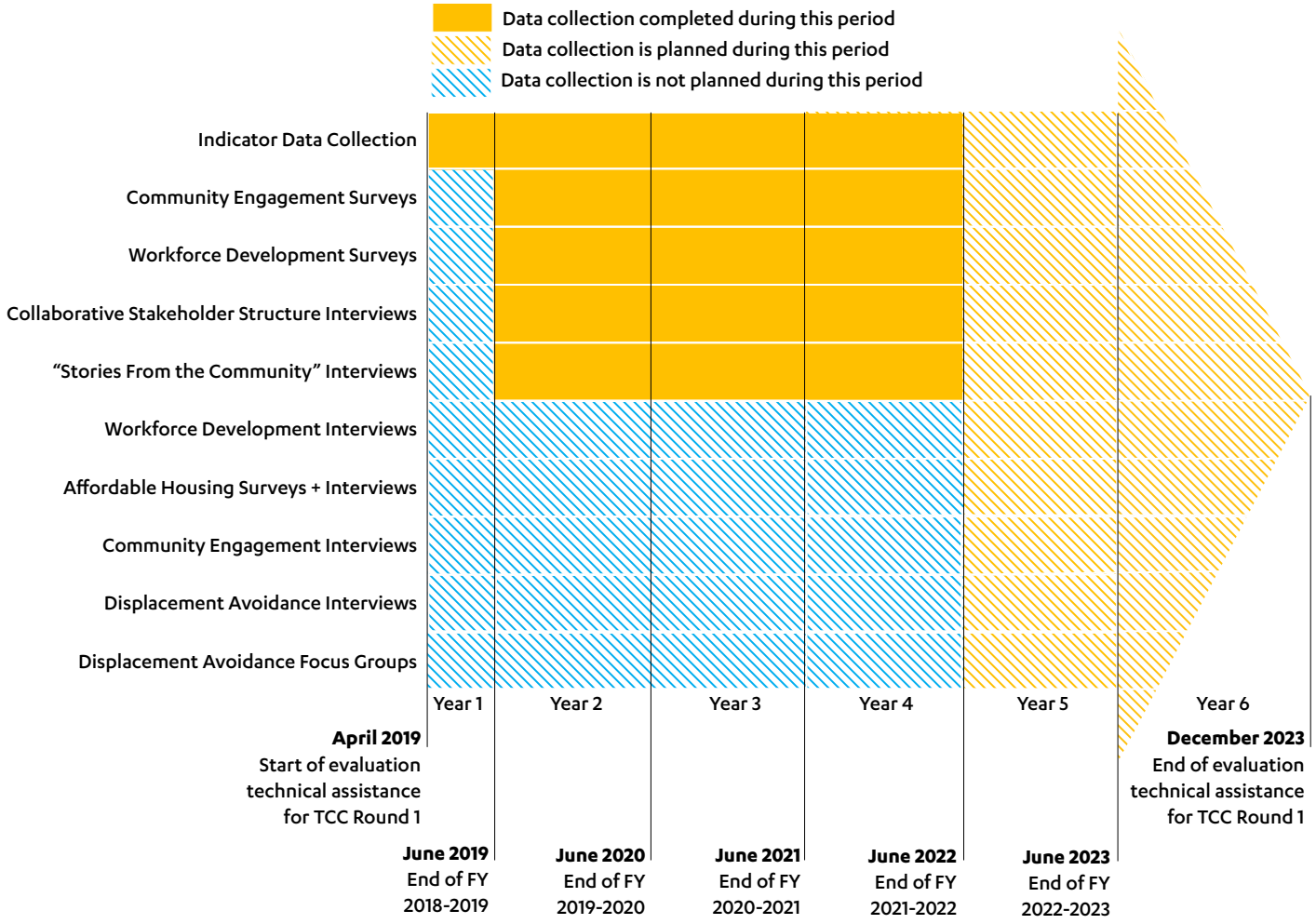
In Watts, community engagement surveys were disseminated at an event held at the Watts Labor Community Action Committee in February 2020. Workforce development surveys were mailed to project leads for dissemination at the beginning and end of training programs. In response to the COVID-19 pandemic, the LCI evaluation team translated surveys into an online format for electronic distribution, with dissemination beginning in the next fiscal year.

[7] **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 TCC).**

In addition to surveys, the LCI evaluation team has conduced 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 for TCC Round 1 implementation grants. The timing of pending activities is subject to change.

Figure 2. Timeline of Data Collection Activities for TCC Round 1 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

Historical Watts Neighborhood. Photo credit: Watts Neighborhood Council

A Brief History of Watts: The Legacy of Environmental Injustice

TCC Awards are reserved for California's most disadvantaged communities. Understanding how those communities became so disadvantaged is critical for evaluating the efficacy of TCC. If the root causes of pollution, poverty, and other harms are overlooked, then they are likely to continue. This section provides a brief history of Watts and how environmental injustices from the past affect the lives of Watts residents today.

The Watts neighborhood covers about two square miles of land situated in South Los Angeles, just north of the 105 freeway, and flanked by the Green Meadows, Florence-Firestone, South Gate, and Lynwood neighborhoods.[8] The area now known as Watts was once the Tajáuta village of the Kumivit, or the Gabrielino-Tongva tribe. Tongva communities lived in the region for at least 7,000 years before Spanish settlers arrived in 1769.[9] For native people, land dispossession caused displacement, loss of livelihood, forced labor under California farmers, and mass incarceration on vagrancy charges.[10] In 1843, the area known as Watts became part of Rancho La Tajáuta Mexican Land grant and was subsequently sold and developed primarily for agriculture and grazing. Although predominantly white, Watts also attracted Mexican and Mexican American railroad workers, or traqueros, building the Southern Pacific rail line.[11] Between 1907 and 1926, Watts was incorporated as its own city before reconsolidating with the City of Los Angeles, enabling residents to raise taxes to develop electric, water, transportation, schools, and other infrastructure.[12, 13]

In the first half of the 20th century, Watts experienced a demographic shift, and subsequent redlining. Many African Americans moved from the American South to the region in the Great Migration; racially restrictive covenants in other neighborhoods concentrated these migrants in South Los Angeles to flee racial terror and economic disenfranchisement. By 1940, Watts was a predominantly working-class African American community.[14] In 1939, the Home Owner's Loan Corporation published redlining maps assigning grades marking areas hazardous for investment. Race restrictive covenants and redlining have caused disinvestment in BIPOC communities, which have had persisting effects on the built environment and racialized health and wealth inequities.[15]

[8] South L.A. (n.d.). L.A. Times. Retrieved May 3, 2022, from http://maps.latimes.com/neighborhoods/region/south-la/
[9] Hernández, K. L. (2017). City of Inmates. UNC Press.
[10] Ibid.
[11] Vallejo, J. A. (2016, July 7). How Watts Provided the Foundation for a Family's Rise in America | Essay. Zócalo Public Square. https://www.zocalopublicsquare.org/2016/07/07/watts-provided-foundation-familys-rise-america/ideas/nexus/
[12] Ray, M. B. (1985). The city of Watts, California, 1907 to 1926. Los Angeles, Calif. : Rising Pub. http://archive.org/details/cityofwattscalif0000raym
[13] TIMES, S. C. O. T. (1910, September 11). WHAT PUBLICITY DID FOR WATTS. Los Angeles Times (1886-1922), V19.
[14] Sonksen, M. (2017, September 14). The History of South Central Los Angeles and Its Struggle with Gentrification. KCET. https://www.kcet.org/shows/city-rising/the-history-of-south-central-los-angeles-and-its-struggle-with-gentrification
[15] Nardone, A., Chiang, J., & Corburn, J. (2020). Historic Redlining and Urban Health Today in U.S. Cities. Environmental Justice, 13(4), 109–119. https://doi.org/10.1089/env.2020.0011

The legacy of policing in South LA has also had an impact on the built environment and shaped community activism. Watts is commonly known for the 1965 Watts Uprising, which was sparked by a traffic stop that escalated into what felt like another instance of police brutality against Black men. The moment made Watts a hotbed for the Civil Rights, Black Power, and Black Arts Movements. Groups like the Studio Watts Workshop, Watts Writers Workshop, Watts Towers Arts Center, Pan Afrikan People's Arkestra, and Black Panthers were active in Watts through the mid-70's.[16] The 1980s saw a continued rise in mass incarceration of the black and brown people in this area with War on Drugs policies.

Climate change poses a great risk in exacerbating social and environmental injustices for Watts' residents. Today, about 70% of Watts residents are Hispanic/Latino, and 28% are African American or Black. Intergenerational poverty and unemployment persist; median household income is $25,161 in Watts.[17] Housing costs, displacement by gentrification, and homelessness in the area remain major concerns. Seventy percent of Watts residents are renters, indicating a major risk of displacement.[18] Those experiencing housing burden and poverty face large barriers in effectively adapting to climate change.

Watts residents face a host of adverse environmental conditions impacting health. They experience severe exposure to pollutants due to the historic siting of noxious land uses (i.e., metal smelters, light industrial factors) near schools and residential areas. Most areas score above the 95th percentile in CalEnviroScreen 4.0.[19] Watts has temperatures 4.7 degrees Fahrenheit more than the Los Angeles average, and in 15 years it is projected to experience 44 extreme heat days per year. [20,21] In terms of transportation infrastructure, Watts residents experience a disproportionately high percentage of pedestrian crashes.[22] In sum, these environmental injustices amount to a life expectancy of 77.7 years, about 10 fewer compared to other parts of Los Angeles County.[23]

[16] Sonksen, M. (2017, September 14). The History of South Central Los Angeles and Its Struggle with Gentrification. KCET. https://www.kcet.org/shows/city-rising/the-history-of-south-central-los-angeles-and-its-struggle-with-gentrification
[17] Watts Rising—About Watts Rising. (n.d.). Retrieved March 16, 2022, from https://www.wattsrising.org/home/about-watts-rising
[18] Hansack, A. (2015). URBAN RENEWAL OR URBAN REMOVAL? AN EXAMINATION OF THE REDEVELOPMENT EFFORTS FOR THE JORDAN DOWNS HOUSING PROJECTS IN LOS ANGELES, CALIFORNIA. 77. https://wattsnc.org/wp-content/uploads/2018/06/FINALDRAFTThesis.pdf
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[22] Hayes, R. (2019, December 10). Map shows where cars hit pedestrians most often in Los Angeles. ABC7 Los Angeles. https://abc7.com/pedestrian-deaths-los-angeles-killed-map-of-pedestrians-crashes-la-fatalities/5745327/
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Young men near Simon Rodia's Watts Towers, 1966. Photo credit: Bill Ray/Life Pictures/Shutterstock

Participants of Urban Peace Institute's Leadership Institute protesting against gun violence. Photo credit: Urban Peace Institute

Watts Rising: Looking Back and Forward

Watts Rising builds on years of community efforts to address challenges by soliciting resident input through meetings and other community engagement processes. Examples of previous work include the 1995 Watts Corridors Redevelopment Plan, the 2008 Central Avenue Master Plan, and, more recently, Watts Greenstreets, Watts Re:Imagined, Wilmington Avenue Great Streets, MudTown Farms, and other projects. The Watts Labor Community Action Committee, Watts Century Latino Organization, and Grant Housing and Economic Development Corporation were part of the Community Advisory Committee for the Watts Corridors Redevelopment Plan, and all became a part of Watts Rising. Over the past 15 years, Watts community engagement efforts have included the use of a diverse set of communications materials including flyers, door-to-door canvassing, emails, social media posting, and more in both English and Spanish. Efforts are made to ensure

community meetings, workshops, and forums are bilingual and accessible. These methods were also used in community engagement around the Watts Rising application.

In 2013, Charles R. Drew University of Medicine and Science (CDU) led the Watts Community Studio, trained and hired youth to administer a survey to 700 households in Watts. The result of these efforts, in part, was the identification of community priorities. These later helped to inform project design and selection for Watts Rising. CDU will conduct a survey during the grant period to track the evolution of resident perceptions throughout project implementation.

After the launch of TCC and call for proposals in 2016, HACLA hosted three workshops with over 100 attendees to support development of their application. Through this process, Watts residents had the opportunity to identify their priority projects for investing TCC dollars. HACLA also hosted additional working groups in 2017 focused on developing specific aspects of the transformative plans.

The result of these engagement efforts is Watts Rising, a suite of projects and plans aimed at reducing GHG while also providing local environmental, health, and economic co-benefits for Watts residents. Per the TCC guidelines for Round 1 applicants, Watts Rising includes 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.

In early 2018, Watts Rising was selected by SGC for a TCC grant of $33.3 million. Watts Rising also leveraged $169 million in outside funds toward 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 2** provides a summary of the Watts Rising projects, plans, and partners involved with implementation. **Appendix 1, page 79,** provides a detailed map of where all of the TCC and leveraged projects are located within the 2.6 square miles of the TCC Watts Rising boundary area.

The next three sections of this report provide summary profiles on the various transformative plans, TCC-funded projects, and leveraged projects that make up Watts Rising. 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 Watts' TCC award through the end of FY 2021-2022. This period overlaps with about one year of post-award consultation and approximately three and a half years of program implementation.

Table 2: Summary of Watts Rising Projects and Plans

Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Community Engagement Plan	N/A	Housing Authority of the City of Los Angeles*	$1,758,252	$565,200
Displacement Avoidance Plan	N/A	Housing Authority of the City of Los Angeles;* Mayor's Office of Economic Opportunity; Watts Century Latino Organization	$0	$190,000
Workforce Development Plan	N/A	GRID Alternatives Greater LA*	$327,386	$5,300
Affordable Housing and Sustainable Communities	Jordan Downs Phase 2A	Housing Authority of Los Angeles;* Michaels Development Company	$13,250,000	$26,446,312
Food Waste Prevention and Rescue Program	MudTown Farms	Watts Labor Community Action Committee*	$392,110	$4,579,393
Low Carbon Transit Operations Program	DASH Bus Electrification	Los Angeles Department of Transportation*	$1,700,000	$6,893,075
Low-Carbon Transportation	Mega Watts Electric Vehicle Car Share	Watts Labor and Community Action Committee;* Green Commuter	$1,833,862	$615,881

Table 2 continues on next page

Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Rooftop Solar and Energy Efficiency Projects	Solar Watts	GRID Alternatives Greater LA*	$1,315,152	$0
	Energy Efficiency	Habitat for Humanity*	$1,802,955	$0
Urban Community Forestry Projects	Watts Community Tech Garden	Los Angeles Cleantech Incubator*	$364,000	$0
	Watts Yardners	Watts Labor Community Action Committee*	$523,549	$50,000
	Greening Public Housing	North East Trees*	$275,475	$64,500
	Greening Watts	North East Trees;* TreePeople*	$1,055,918	$91,575
Urban Greening	WalkBike Watts	Los Angeles Department of Transportation;* Department of Cultural Affairs;* Urban Peace Institute; We Care Outreach	$3,511,260	$1,013,110
	Wilmington Avenue Great Streets	City of Los Angeles Bureau of Street Services*	$868,000	$0
	Weigand Elementary Urban Trees / Rain Garden	TreePeople*	$124,439	$10,038
	Watts Cool Schools - Green Schools	Los Angeles Unified School District;* TreePeople*	$621,861	$13,755
	Greening the A Line	TreePeople*	$305,179	$0
	Century Gateway Park	The Michaels Organization*	$428,575	$260,683
	Freedom Tree Park	Housing Authority of the City of Los Angeles*	$1,157,900	$0
Leveraged Projects	103rd Street Streetscape	City of Los Angeles Bureau of Street Services*	$0	$836,700
	103rd Street Urban Trees/ Rain Garden	TreePeople	$0	$104,166
	Central Avenue Streetscape	City of Los Angeles Bureau of Street Services; Grant Housing and Economic Development Corporation	$0	$4,127,890
	Century Boulevard Complete Streets	City of Los Angeles Bureau of Street Services*	$0	$10,689,780
	Jordan Downs Phase 1B	Michaels Development Corporation*	$0	$67,682,777

*Project lead

**TCC funding subtotal here does not include additional grant money provided for grant administration and other related activities. Funding amounts are correct as of June 2019. Grant agreements may have been amended since.

Note: Changes to this table since the Year 1 Annual Report include: 1) Leveraged Project Success Avenue Green Streets lost funding and will not proceed with implementation. The Total Leverage funding amount has been adjusted to reflect this; 2) Community Healing Gardens is no longer a partner on the Community Tech Garden project; 3) GRID Alternatives replaced Restore Neighborhoods LA on the Solar Watts and Workforce Development Plan; and 4) Habitat for Humanity replaced Restore Neighborhoods LA on the Energy Efficiency project. 5) From Lot to Spot closed its office doors due to the COVID-19 pandemic. An RFP process was commenced to identify a replacement project implementation partner resulting in the selection of TreePeople to lead the project.

WATTS RISING: STORIES FROM THE COMMUNITY

WalkBike Watts Walking Club participants. Photo credit: Urban Peace Institute.

AS A COMMUNITY-LED INITIATIVE, Watts Rising 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 rollout of Watts Rising and/or benefited from the initiative's suite of projects and plans. The case studies are presented in reverse chronological 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 Watts Rising. Thus, their purpose is to be illustrative, but not exhaustive, of the ways in which Watts Rising has touched the lives of community stakeholders.

Street Team ambassadors build community, capacity and confidence

BACKGROUND

This case study illustrates how the TCC-funded Street Team program, which employs Watts residents as community outreach ambassadors, fosters local leadership and capacity. Through the eyes of two Street Team members, their stories show how training and work experience help residents gain career-building skills and confidence. To learn more about the Street Team and Watts Rising's community engagement plan, see **page 41.**

Interviews for this story were conducted in January and February of 2023.

Watts Rising Street Team members Anai Velazquez (left) and Mary Ann Cortez (right) table at an event for Watts Rising.
Photo credit: Housing Authority of the City of Los Angeles (HACLA).

MARY ANN CORTEZ has been involved in Watts Rising since she joined initial stakeholder meetings to apply for the TCC grant. Since moving to Watts in 1994, Cortez has raised six children — all of whom have attended Watts public schools — and built a career leading parent engagement efforts and events with the Los Angeles Unified School District (LAUSD). While she was initially skeptical about Watts Rising projects getting done, her investment in creating positive change in her community kept her coming back to the meetings.

"I was always there during the first planning stages. And now I'm seeing it all come together. Like, I was one of the first to drive the electric vehicles."
MARY ANN CORTEZ

Mary Ann Cortez presents at the Watts Rising public forum.
Photo credit: Luskin Center for Innovation.

Cortez's role in local schools has been key to her success as a Street Team member. She canvasses parents waiting to pick up their children, easily engaging them to spread the word about Watts Rising programs. And her job with LAUSD perfectly positions her to plan Cool Schools tree planting events as part of Watts Rising's Urban Greening initiative.

Cortez's work has benefited countless members of her community. She regularly drives families to Mudtown Farms to pick up free produce and has helped residents save hundreds of dollars through the free solar program. And the students who help plant trees for the Cool Schools program not only learn about trees but also create a legacy of shadier, more heat-protected playgrounds for future students.

"I envision each child growing up and telling their own child, 'I planted that tree.' They'll always have memories of what they did in their community."
MARY ANN CORTEZ

Beyond the benefits to her fellow Watts residents, Cortez has gained invaluable skills and experience, becoming a stronger leader and communicator. She has become more comfortable with connecting with people over Zoom and WhatsApp, and managing events — sometimes two in one day — and these experiences have strengthened her organization and

multitasking abilities. Street Team members also regularly present at Watts Rising public forums, an opportunity that Cortez credits with helping her to develop her skills as a public speaker. "I present on what I did each month, answer questions and take feedback. These are important skills that I've developed as a Street Team member." And to add to the skills and capacity she has built, Cortez has greatly increased her income through working on the Street Team and other Watts Rising projects. Cortez is determined to see her Watts Rising projects through. After the success of the first tree planting event for the Cool Schools project, there are three more schools to go — and then the trees will need to be watered and maintained.

"It's a blessing, being a part of the Street Team. I get to work in my community, deal with projects, and I also get paid. I'm just excited to be a part of it."

MARY ANN CORTEZ

ANAI VELAZQUEZ and her two siblings grew up in the same Watts home where she and her parents still live. Velazquez has been an integral part of her church community throughout her life, including attending St. Lawrence, a private school in the Watts Rising project area. After years of seeing her peers participate in the local public school community, Velazquez saw the Watts Rising's Street Team as a way not only to deepen her participation in the church but also to expand her involvement in other aspects of the local community.

"I've become less afraid to talk with people outside my own circle. I've found that if I'm kind, they'll be kind back. Being a Street Team member made me way more comfortable with talking to people."

ANAI VELAZQUEZ

Velazquez was nervous to start the Street Team outreach work — she was shy, and talking to other local residents wasn't initially a comfortable task. But as she continues her second year as a Street Team member, she notices that she has become much more comfortable with the work. She and other team members table around the neighborhood and at local events, helping their neighbors to learn about the different programs and opportunities Watts Rising offers.

Through her work, Velazquez has helped many different members of her community. By sharing information and connecting community members to Watts Rising programs, she ensured that the priests at her church could replace a leaking refrigerator, helped the deacon get free rooftop solar panels, and connected a grieving widower with gardening support through Mudtown Farms. Armed with information that helps fellow Watts residents, she has become more confident and connected in the community.

In addition to becoming more confident and skilled at community outreach and networking, Velazquez has

Anai Velazquez at Corazon de Watts event. Photo credit: HACLA

"I like leading and organizing people and events. It was my idea to table at St. Lawrence's carnival — we got a lot of leads in those three days."

ANAI VELAZQUEZ

benefited from the Street Team program financially. She has earned enough to pay off her car loan five months early, with enough left over to fund family celebrations for her birthday and other occasions.

Now, looking forward, Velazquez is ready to take the confidence and skills she has gained with the Street Team into a new role: teaching a class at the career technical education program where she works as a receptionist for her day job. Once she receives the required credentials, she hopes to teach an entrepreneurship course, building on her experience running a home decorating business on the side.

"After a year as a Street Team member, I feel more confident to take on responsibility and connect people from different organizations. I feel like I can handle tasks when people ask if I can do it."

ANAI VELAZQUEZ

Planting trees and the seeds of green careers in Watts

Eddie Guerrero and other North East Trees staff take part in a tree planting event at Gonzaque Village, a public housing community in Watts. Photo credit: UCLA Luskin Center for Innovation

BACKGROUND

This case study highlights how TCC investments in urban greening have empowered young Watts residents with technical skills, community engagement experience, and career inspiration. It showcases the stories of Eddie Guerrero and Maria Flores, two recent recruits for the Watts crew of North East Trees, the organization coordinating two urban forestry projects in Watts (Greening Public Housing and Greening Watts). To learn more about urban forestry projects in Watts, see **page 59.**

Interviews for this case study were conducted in September 2022.

EDDIE GUERRERO has lived in Watts throughout his 24 years. Growing up in a neighborhood without much green space, he spent little time in nature. But his grandma had a green thumb, and Guerrero absorbed her love of plants and trees as she helped to raise him.

Accustomed to sunny streets with little shade, Guerrero didn't think much of the lack of trees lining the streets of Watts before he joined North East Trees. "We lack natural environment here. We're surrounded by factories. So, we're planting trees, which is really important — but a lot of people just don't know how important it is. I think Watts Rising can raise awareness in a really positive way."

Working with North East Trees has given Guerrero a more nuanced perspective on how planting trees benefits communities like Watts. Learning about the biology of different types of trees — and the implications for how they should be planted — has inspired his career aspirations.

"In five to 10 years, I see myself working for CalFire," he said, referring to California's Department of Forestry and Fire Protection. "Everything I'm doing right now, when it comes to restoration, they do in wildland firefighting. Certain trees are more fire resistant than others. So everything I know about the biology is very important when it comes to fire."

Eddie Guerrero stands by a tree North East Trees planted in Watts. Photo credit: UCLA Luskin Center for Innovation

"It makes me really happy, being able to be part of this change in my community. I enjoy seeing the people sitting and enjoying the shade of the trees we planted."

EDDIE GUERRERO

As a lifelong Watts resident, Guerrero was an ideal candidate for youth work opportunities at North East Trees because the organization seeks to hire people who live in the neighborhoods where they are planting trees.

Residents hired into these positions conduct community engagement to educate fellow residents about the benefits of planting new trees. For instance, before planting trees at the local community of Gonzaque Village, the young workers asked residents to pledge to help care for trees and provided information on how to do so.

After witnessing the effects of poor tree-planting practices in decades past, some residents worry about the damage large trees can cause, such as broken pipes and cracked sidewalks. Guerrero and his colleagues work to help residents understand that by planting the right trees in the right places, North East Trees can provide more shade and other benefits to the Watts community without causing damage.

Guerrero also talked about the health benefits of trees, such as cleaner air and relief from extreme heat in a neighborhood facing higher temperatures than most of the City of Los Angeles. Guerrero described one street in particular to illustrate the effect of his crew's work: "There was not a single tree on that street. National Geographic did a study of that particular street, like how bad the air quality is, how hot it gets, right? We went in there and planted about 40 trees on that street. And it looks amazing — the residents love it."

"I always say that I want to change the world, and I was told to start with my community."

EDDIE GUERRERO

MARIA FLORES has lived in Watts for over a decade. Although she had little exposure to nature throughout her childhood, she took initiative to explore the environment more as she got older, and she knew that she wanted to get involved in environmental work in her community. A temporary job at North East Trees — which soon became permanent — gave Flores the chance she had been searching for to engage her community while bringing more nature to Watts.

"Working with North East Trees has given me a lot of insight. It has opened my eyes to the importance of bringing nature into urban spaces, because especially in our area, we're so industrialized."

MARIA FLORES

Flores is doing more than planting trees. She is gaining technical skills and knowledge about tree identification and ecosystem restoration that she hopes will help lead to a long career in the environmental field. She is also building important relationships and more deeply learning what communities like Watts need.

Flores has generated valuable insights for improving urban forestry efforts, particularly in communities like Watts where some residents fear that large trees will tear up their neighborhood. Flores thinks there are ways to shift that point of view, including giving residents a say in what types of trees are planted and providing funds for tree maintenance beyond the first two years of establishment.

"You would think everybody loves trees, but we definitely get backlash. Back in the day, they were planting trees without really knowing the biology of the tree and how it grows. When we explain the benefits, and how we're picking the right species of trees and making sure that it's planted the proper way this time around, people open up."

Maria Flores works with North East Trees to plant trees on a residential street in Watts. Photo credit: UCLA LCI

"I honestly can't see myself doing anything else. I definitely see myself in this field, taking on more roles, doing more community outreach, and really connecting with residents."

MARIA FLORES

No-cost solar program reduces energy bills and relieves residents from heat

Moneik Johnson in her home in Watts. Photo credit: Moneik Johnson

BACKGROUND

This case study explores how TCC dollars have helped Watts residents achieve energy cost savings through rooftop solar and energy efficiency projects. Specifically, the story highlights how no-cost solar installations through the TCC-funded "Solar Watts" program have benefited Moneik Johnson and Sandra Garcia. See **page 56** for more information about this project.

The interviews for this case study were conducted in June 2021 and January 2023, respectively.

MONEIK JOHNSON is a longtime and active member of the Watts community, where she has owned her home for more than two decades. With fewer green spaces than other parts of the region, Watts is a disproportionately hot community — and it's only getting hotter due to climate change. Johnson has experienced this heat firsthand. Despite the heat, she has never had air conditioning in her home. She has struggled to pay her electricity bills, even without the major expense of cooling her home to a comfortable level.

But this is changing. After having solar panels installed on her home for free through Watts Rising's home solar program, she is already experiencing major benefits. Once the panels were turned on, she immediately began seeing a difference in her electricity bill. "I was really happy. It came down tremendously.... This last bill was the best bill. I've never seen a bill like that since I've been a DWP customer," Johnson said.

Before having solar installed, Johnson was making monthly payments to pay off her electricity bill debt. Now, she can pay the bill in full. "I'm able to just pay it all at once as opposed to making payments on it. It's always been a thing that I'm making payments, and to be able to pay it off feels good."

Lower electricity bills mean that Johnson can now afford to keep her home cooler and more comfortable. She plans to get air conditioning in the winter, when she might be able to take advantage of sales.

> **"I know that now it'd be affordable for me to get air conditioning. I've been wanting it because it's so hot."**
>
> MONEIK JOHNSON

Johnson first heard about the Solar Watts program through a local family roofing business, where she has worked as an office manager for over 20 years. The company was working with GRID Alternatives, so Johnson knew she could trust the organization. When the solar program launched, she was one of the first in line to have GRID Alternatives install solar panels on her home.

> **"The company I work for does a lot of work for GRID Alternatives, so I saw that Solar Watts was a real program. I knew they weren't making homeowners pay."**
>
> MONEIK JOHNSON

Johnson has been sharing her positive experience with installing solar to encourage others in her community to sign up for the program. "I've been telling all my neighbors that I know.... It's a good thing to have."

SANDRA GARCIA has lived in Watts with her mother and younger brother since 2017, when she purchased her first home amid skyrocketing rents. Having grown up in South Central Los Angeles, she has lived in several different neighborhoods. When she moved to Watts, she found a strong sense of community among neighbors who watch out for one another.

As a member of the Watts Rising Community Advisory Group (a group of residents, business leaders, and other community stakeholders who help guide Watts Rising activities), Garcia is no stranger to TCC. She has seen how the many TCC-funded projects have begun to benefit her community. "My neighbors are passionate about it. They want a safer and healthier community for their kids, for themselves, and for their parents. I see the improvements already. Other places in LA are changing due to gentrification, but I have the sense that it's different here — it's community led."

Garcia first learned about Solar Watts during a Community Advisory Group meeting, when a GRID Alternatives staff member presented on the free solar installation program. If it had been presented in any other context, she said, she would have been immediately skeptical that the panels could be installed for free. As the information came from a trusted source — an organization where a Watts Rising colleague worked — she trusted it and decided to apply for the program.

Sandra Garcia, a homeowner in Watts. Photo credit: Sandra Garcia

"I know solar panels cost a lot of money. If I had heard it anywhere else, I'd be like, what are you talking about? How is it free?"

SANDRA GARCIA

After the panels were installed, Garcia got the first updated power bill that August. During the hottest time of the year, the bill reflected the financial help that solar panels can bring to residents. These savings have been a relief to her budget. Garcia attended UCLA for her undergraduate and master's degrees, and she is currently pursuing a Ph.D. there. And while she worked full time during her master's studies, she has had to cut back her work hours since starting her doctoral studies, which cuts into her savings.

"It was the hottest month of the last few years. It was 100 degrees for days and days. We had AC on every day and night. And our bimonthly bill was still $100 less than normal. It was a huge difference."

SANDRA GARCIA

Now, the extra money she saves on energy goes straight into replenishing her savings.

And it's not just air conditioning that has gotten cheaper and more environmentally friendly for Garcia: charging her electric vehicle (EV) has also gotten easier. "I used to notice my bill go up if I charged my EV more than five times in a month. Now, I feel very comfortable charging, and it's fantastic because I have to commute. It's made my worry about charging at home just nonexistent. With both that and the air conditioning, it just gave me peace of mind, and it's more comfortable now. "

In addition to lower bills to cool her home and charge her car, Garcia's pocketbook was saved by GRID Alternatives' roof upgrade program. Before getting solar panels, her home needed a stronger roof, which would usually come with a $10,000 price tag. But GRID Alternatives was able to cover half of the cost, and since Garcia knew she would need to upgrade her roof soon anyway, she signed up for a payment plan with a local roofer for the other half.

In the coming years, Garcia is saving for a down payment on a new home, and the savings from the Solar Watts panels are helping her toward that goal. "The savings from the solar panels increase my financial bandwidth and gives me more options."

Engaging the community during a pandemic

A volunteer distributes food to a community member using a socially distant method. Photo credit: MudTown Farms Instagram, @Mudtownfarmswatts December 2020.

BACKGROUND

This case study explores how TCC dollars have supported community engagement. Specifically, these case studies spotlight the work MudTown Farms and Urban Peace Institute did during the COVID-19 pandemic to continue providing residents with information about health, safety, resources, and more. This represents part of Watts Rising's larger Community Engagement Plan. See **page 41** for more information about this plan.

Interviews for these case studies were conducted in December 2020.

HALEEMAH HENDERSON, project manager at MudTown Farms, works to distribute food to the community. MudTown Farms also found ways to creatively adapt its community engagement and even helped other organizations with their outreach. In addition to online outreach, especially through social media like Instagram, the project passed out flyers from other organizations through its food distribution events. This collaborative outreach with other organizations can help other projects with less of an opportunity for in-person interaction with residents during the pandemic also maximize their impact.

Other projects similarly adapted community engagement by moving meetings and classes online, prioritizing social media and online outreach, sending mailers, and distributing flyers instead of door-to-door canvassing and in-person events.

Haleemah noted how the pandemic caused challenges for community engagement: "People are at the center of it and it requires that people are interacting because it's about the space at MudTown Farms and building capacity with folks. That's a lot harder to do [during the pandemic]."

"How do we still serve folks and still build capacity and still engage people? [We're] just coming up with new ways to do things.... We're still in the process of working that out. How do we adapt the program and still meet our goals?"

HALEEMAH HENDERSON

As the pandemic continues into 2021, Watts Rising project partners, including MudTown Farms, are looking to continually improve and adapt to better serve the community. Haleemah notes, "Now we're really having to sit down and look at how do we revamp the program to adjust to what's now being considered this new normal and not knowing when this is going to end? How do we still serve folks and still build capacity and still engage people? [We're] just coming up with new ways to do things. We're still in the process of working that out. How do we adapt the program and still meet our goals?" It will be an iterative process, not without challenges, but these projects so far have proven to show resilience and creativity in adapting and supporting their community.

JACKIE VALLADARES is a native Angeleno and Program Coordinator at the Urban Peace Institute, one of the organizations supporting the WalkBike Watts project. This project includes pedestrian and bicyclist improvements, the development of a cultural trail, and the establishment of a Safe Passage Program (described more on **page 68**). Community engagement is an essential component of this project.

When the shelter-in-place order was issued, the Urban Peace Institute responded quickly to continue community engagement virtually. Jackie notes: "We had a good momentum of engaging everyone. We saw that there were so many things happening quickly, [so] we doubled our virtual meetings to twice a month."

Before the COVID-19 pandemic, Jackie described the community engagement facilitated by the Urban Peace Institute: "We were holding meetings to address public safety concerns and also infrastructure challenges.... Before COVID-19, we were doing a Walk to School Day ... a lot of it was face-to-face interactions. A lot of our work pre-COVID was engaging the community."

In doing so, they creatively maximized their platform. They already had connections in the community and had established a communication channel through their project, which they were able to use to disseminate vital public health information to the community. They maximized their existing meetings to help share critical public health information with the community about the pandemic, such as statistics, updates from the mayor and governor, and available resources. During their meetings, Jackie explained, "We were updating them on the COVID-19 numbers. We were updating on any resources that the community members would have benefited from." They made sure to answer questions and dispel myths to ensure the community was being misled by rumors or inaccurate information. Jackie explained how COVID-19 statistics updates were "a tool to help inform them and also inform others."

Urban Peace Institute hosts a virtual Watts School Safety Collaborative meeting over Zoom. **Photo credit: Urban Peace Institute Instagram @urbanpeaceinstitute April 2021**

Saul Garcia, Coalition Organizer at the Urban Peace Institute, reiterated the importance of information in engagement and its particular importance during these uncertain times. Saul described that prior to COVID-19, these meetings were focused on "issues that indirectly affect violence." As they adapted, the information covered evolved, but Saul noted that, "We're still looking at those issues in addition to COVID."

"There's a lot of information that needs to be shared and it's not really just about sharing. It's about doing something with it."

JACKIE VALLADARES

The methods for community engagement also in some ways stayed the same. Saul explained how he continued to provide reminders to community members about meetings, including personalized text messages. In other ways, information about attending the meetings naturally needed to be modified in response to the pandemic. Saul made efforts to ensure that meetings, hosted on Zoom, were easily accessible by helping attendees understand which phone number to call in to and which link to click, as Zoom invitations can look confusing for those unfamiliar.

The project continues to evolve. Jackie explained the next step they are working on to improve the efficacy of their meetings, including adding a parent advisory committee: "Starting next week, we're having our first meeting with two [parents] that will give us direction [on] what needs to be changed."

"We were updating them on the COVID-19 numbers. We were updating on any resources that the community members would have benefited from."

JACKIE VALLADARES

Nourishing neighbors during a pandemic

A volunteer sorts produce at a food distribution event during the pandemic in 2020. Photo credit: MudTown Farms

BACKGROUND

This case study explores how TCC-funded organizations adapted project activities to support the community during the COVID-19 pandemic by distributing food in a safe way (see **page 50** for more information about the MudTown Farms project and **page 68** for more information about the Walk Bike Watts project).

Interviews for this case study were conducted in September and December 2021.

MUDTOWN FARMS is on the frontlines of battling food insecurity, which deepened in Watts during the pandemic. As program coordinator at MudTown Farms, Ava Post is part of a team that rescues produce from wholesale distributors before it goes to waste and redirects the fresh produce to Watts residents through bimonthly free distributions events. "The need for produce has gone up. I know pretty much everyone's been affected food security-wise," said Ava.

> **"The need for produce has gone up. I know pretty much everyone's been affected food security-wise."**
>
> AVA POST

Launched before the pandemic, MudTown Farms was well positioned to make adjustments to quickly provide food in a COVID-19 safe way. Originally the distribution events were set up in a grocery store style, where residents would pick out food that volunteers had sorted onto shelves. "But we had to adapt. We started to pre-bag all the produce and we started a drive-through as well to distribute the food. So it's been great to be able to continue to offer the service especially when people need it the most," said Ava.

Other complementary efforts as part of Watts Rising also addressed food insecurity. Like MudTown Farms, the Watts Healing Tech Garden was also well positioned to distribute fresh produce to residents throughout the pandemic. Adjusting their food distribution procedures to align with updated health standards, the Watts Community Tech Garden has continued to grow its fresh produce at the Edwin Markham Middle School. (For more information, see **page 39** for last year's profile featuring the Watts Community Tech Garden.)

> **"So it's been great to be able to continue to offer the service especially when people need it the most."**
>
> AVA POST

A food distribution event led by East Side Riders with support from We Care Outreach in May 2020. Photo credit: Spectrum News 1 SoCal Twitter, @SpecNews1SoCal

ELDER MICHAEL CUMMINGS leads an organization that did a big pivot with its TCC project in 2020 to help alleviate food insecurity in Watts. Michael is executive director of We Care Outreach Ministries, an organization that added a new focus on food to its Safe Passages to School program.

A Pentecostal pastor and a gang interventionist fondly referred to as "Big Mike" in the Watts community, he and his We Care Outreach Ministries are dedicated to elevating the lives of Watts youth while keeping them safe and defusing tensions among community members.

"The Safe Passages to Schools Program was implemented to make sure kids get to and from school safely," Michael said as he explained how the program, part of TCC through the WalkBike Watts project, involved training local adults to supervise students traveling to and from school. When schools went remote in March of 2020, the program pivoted to meal distribution while keeping its focus on community safety, including health.

> **"We're ground rooted here in Watts and we want to just make sure that we can change lives, one life at a time."**
>
> ELDER MICHAEL CUMMINGS

"[We] made sure we could keep the peace as people waited [in long lines] to come and be safe and get their food," Michael said. To support this goal, he explained, "Cedars-Sinai gave our team a COVID-19 training" on health guidelines including mask use, social distancing, and frequent hand washing. They used the information to implement procedures for people coming to collect food, such as staying six feet from others in line.

Mike underscored the importance of community collaboration. In addition to their main food distribution partner, East Side Riders, they collaborate with other grassroots organizations, including the Watts Leadership Institute and the Watts Gang Taskforce. They are also able to refer residents visiting food distribution to other services through the Children's Institute, the local housing authority, and more. (For more information on the Safe Passage to School project, see **page 68**).

"We're ground rooted here in Watts and we want to just make sure that we can change lives, one life at a time."

Students grow while garden grows

BACKGROUND

This case study explores how TCC dollars have connected students with fresh produce through the Watts Community Tech Garden project (see **page 62** for more information about this project). Since this story was written, the Los Angeles Cleantech Incubator became the project lead.

The interview for this case study was conducted in January 2020.

Rudy (second from left), Nicole Landers (second from right), Jose Hernandez (far left), and Estelle Reyes (far right) at a community engagement event at the garden in September 2019. Photo credit: UCLA Luskin Center for Innovation

RUDY is a junior at David Starr Jordan High School. He has lived in Watts his whole life with his parents and younger sister. Of his high school, he says, "All my teachers want the best for me. They pour their heart and soul into everything that they teach, and I'm grateful for that." When he's not hanging out with friends, he's working in the Watts Community Tech Garden.

He first became involved with the garden as a student at Markham Middle School. He took an elective class in sixth grade that taught him and the other students about topics including photosynthesis and plant life cycles. Then in ninth grade, Rudy began volunteering with the garden through a program called College Track, which provides participating students with scholarship money for college expenses. Inspired by his experience in the garden, Rudy is interested in studying fields such as botany, agriculture, and ornithology in college. The scholarship money he earned through work in the garden will help pay for college.

"The garden gives me an opportunity to just breathe in that fresh air and do something, put my hands into the dirt. School is stressful. But every time I go to the garden, it's like, 'OK, school aside, let's focus on the garden.' And then when I focus on the garden, my stress would go away."

RUDY

The summer after his sophomore year, Nicole Landers, co-founder and executive director of Community Healing Gardens, hired Rudy as an intern to take on additional duties in the garden. Rudy collaborates with his coworkers on his expanded responsibilities maintaining the garden. "[The experience] taught me leadership skills. I gained ownership and accountability," Rudy said. He also has a new role model. "Nicole inspires me so much because the garden helps the community by giving them fresh produce and making the kids open up their eyes into, 'Oh, I can eat this instead of that,'" he added.

A major perk of working in an edible garden is the accessibility of fresh produce. Rudy sometimes brings home some of the fresh produce grown in the garden, where his parents cook with it. Recently, Rudy brought home some squash that his mom added to a chicken vegetable soup. The produce varies seasonally, but Rudy noted that the cucumbers are his favorite. "We did a successful planting of strawberry," he added, "that was a very good hit with the little kids."

Rudy will continue to be involved as the garden expands and installs water and energy efficient technologies.

"The garden is just growing and growing. And I'm also growing with the garden. Everyone who associates with the garden is growing with it."

RUDY

PROFILES:

TRANSFORMATIVE PLANS

Residents at the Watts Grow and Glow Earth Day Celebration hosted by Watts Rising Collaborative in April 2022. **Photo Credit: Watts Rising**

THE COUPLING OF TRANSFORMATIVE PLANS alongside GHG-reduction projects is one of the central elements of TCC that separates it from all other California Climate Investments. For Round 1 of TCC, applicants were required to develop three transformative plans: a community engagement plan, displacement avoidance plan, and workforce development 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 Watts Rising structured its three transformative plans and what progress has been made toward plan implementation.

Community Engagement Plan

Watts Street Team members Presenting at the first In-Person Monthly Watts Public Forum. Photo Credit: Watts Rising

THE WATTS RISING COMMUNITY ENGAGEMENT PLAN (CEP) builds on a long history of community leadership and engagement. Community engagement is an integral component in all phases of the Watts Rising Collaborative. The CEP spells out an overarching engagement process to ensure robust community involvement for the entire Watts Rising TCC initiative and complements multiple project-specific outreach activities. In addition to project-specific outreach and engagement (described in each project's respective profile), HACLA will lead sitewide community engagement efforts. This centers on the creation of the Watts Rising Community Advisory Group, formerly known as the Watts Rising Leadership Council, the advisory body for Watts Rising, as well as multimedia communications and an annual community survey.

Recent Accomplishments*

- 5 Community Engagement Events with a total of 414 engaged community members
- HACLA has expanded the Watts Street Team from 3 to 6 members
- Watts Rising monthly Public Forums have an average 40 participants

*Includes only accomplishments during the last fiscal year (July 2021 through June 2022)

The Watts Rising Community Advisory Group is composed of representatives of key stakeholders, as well as Watts residents, business owners, and community leaders. The Community Advisory Group meets monthly to discuss relevant topics, and meetings are open to the public. The Community Advisory Group hosts an annual open house.

Given the collaborative nature of the initiative, Watts Rising organizes the 19 project partners into four Project Partner Hubs around the following project themes: (1) Sustainable Housing, (2) Urban Greening, (3) Active Transportation, and (4) Low-Carbon Transportation. Members focus on implementing one or more projects in those four areas. Community engagement events often plan to involve multiple projects both within and among hubs.

HACLA leads the development of messaging and avenues for communications. This includes the development and maintenance of a website and social media accounts. Finally, with Charles R. Drew University of Medicine and Science and the Watts Community Studio (the data partner), Watts Rising issues an annual community survey.

Community Engagement Plan

Project Details

- Launch date: April 2019
- Anticipated completion date: Project based throughout grant term
- Project lead: HACLA
- TCC grant funds: $1,758,252
- Leveraged funds: $565,200

Cumulative Progress Through FY 2021-2022

- 6 street team members who provide additional assistance at local events and support project partners' community engagement goals
- 10 members sitting on the Community Advisory Group attending monthly meetings
- 200 attendees at Community Advisory Group Open House event
- 414 community members engaged at five different community events such as: Day of the Dead, Healthy Harvest, Winter Wonderland, Earth Day, and Juneteenth
- 1,500 flyers distributed to stakeholders in both English and Spanish
- Over 1,700 stakeholders engaged on Watts Rising social media platforms such as Instagram and Facebook
- About 380 people who provided commentary or input on the Community Engagement Plan

Responses to COVID-19

- All public forum meetings were conducted online.

Displacement Avoidance Plan

Watts Rising Displacement Avoidance Working Group and attendees at the Eviction Prevention Workshop in August 2022.
Photo Credit: MOEO

THE WATTS RISING DISPLACEMENT AVOIDANCE PLAN (DAP) directly supports one of Watts Rising's key identified goals: to prevent displacement and its impact on physical and mental health. Led by the Los Angeles Mayor's Office of Economic Opportunity (MOEO) and Watts Century Latino Organization (WCLO), the Watts Rising DAP focuses on six key areas: (1) production of affordable housing, (2) preservation of affordable housing, (3) tenant protections and support, (4) neighborhood stabilization and well-being, (5) protections for small business, and (6) business stabilization and wealth building.

This program year, a notable milestone was momentum gained for a policy intervention to directly prevent potential displacement indirectly influenced by the Jordan Downs Revitalization and other large-scale investments in the Watts community. MOEO spearheaded the community engagement, data collection, policy analysis and policy memo development efforts to identify a pathway to adopt a geographic preference policy for non-Jordan Downs Watts residents to receive a weighted preference when applying to the lottery for nonreplacement Jordan Downs units. The policy is intended to mirror the City of

Recent Accomplishments*

- WCLO co-hosted the Watts Rental Assistance Clinic in-person event with 36 participants
- MOEO hosted the second-annual "No Place Like Home: Watts Resident Resource Summit" virtually with 21 participants
- 7 small business workshops were held with a total of 98 attendees
- In partnership with the MCS HarborWatts BusinesSource Center, MOEO hosted the second-annual virtual "Minding Your Business: Small Business Resource Event" with 22 participants

*Includes only accomplishments during the last fiscal year (July 2021 through June 2022)

San Francisco's Neighborhood Resident Preference policy, and address the DAP work plan task of facilitating the revision/adoption of an ordinance to address displacement. In spring 2022, the Watts geographic preference policy motion was introduced by Councilman Joe Buscaino (Council District 15), adopted by the City Council Housing Committee and subsequently, the full City Council, calling for HACLA to conduct further feasibility studies to implement the policy. This initial legislative accomplishment has promise to tangibly and directly disrupt displacement, particularly for Watts residents who live close to the Jordan Downs redevelopment, which is influencing increases in property values in nearby areas. Additionally, WCLO took great strides to continue to provide displacement avoidance services in light of minimal organizational funding and greater community need. WCLO applied for, competed in a crowdsourcing competition, and ultimately received a $200,000 grant via the Buscaino Community Grant Program. The program was created with funds reallocated from the Los Angeles Police Department's budget prompted by widespread activism locally, nationally, and internationally, to stop police brutality against Black people and people of color. WCLO applied for the grant to cover the costs of additional outreach workers to identify Watts residents vulnerable to displacement, possibly due to COVID-19 financial impacts, and refer them to rental and legal assistance providers. This work was intended to build upon WCLO's co-hosting of a successful rental assistance clinic which served 30+ individuals.

Displacement Avoidance Plan

Project Details

- » Launch date: April 2019
- » Anticipated completion date: July 2024
- » Project lead: MOEO; WCLO
- » TCC grant funds: $0
- » Leveraged funds: $190,000

Cumulative Progress Through FY 2021-2022

- » 45 individuals attended second-annual "No Place Like Home: Watts Renter and Homeowner Resource Event."
- » 2 workshops held to inform residents about affordable housing opportunities
- » About 300 residents invited to workshops about affordable housing opportunities
- » 3 workshops about tenants rights education classes held virtually with about 96 participants
- » Over 200 tenants accessing case management sessions and/or referrals
- » 14 small business workshops held with over 190 attendees
- » 45 individuals attended second-annual "Minding Your Business: Watts Small Business Summit"
- » 165 businesses connected to supporting resources and programs.

Responses to COVID-19

- » Watts Century Latino Organization hosted its annual Navidad En El Barrio event while implementing COVID-19 safe protocols. The event included distribution of two weeks' worth of food, COVID-19 PPE and resources, and general anti-displacement information to roughly 250 families in Watts.
- » To assist families with increased displacement vulnerability due to household income decreasing due to COVID-19, WCLO provided legal assistance referrals to UnidosUS legal advocacy nonprofit corporation.
- » Conducted small business needs assessment that included questions regarding the impact of COVID-19 on business operations to garner insight to shape helpful displacement avoidance interventions
- » Continued to host virtual renter and small business resource workshops to provide helpful information to navigate COVID-19 in a format to allow social distancing

Workforce Development Plan

GRID Alternatives solar installer trainee. Photo credit: GRID Alternatives

IN SUPPORT OF WATTS RISING'S identified economic goals of "access to training, high-quality jobs and careers, and helping youth identify and prepare for careers in GHG reduction fields," Watts Labor Community Action Committee (WLCAC) and GRID Alternatives Greater Los Angeles (GRID Alternatives) are leading the Watts Rising Workforce Development Plan (WDP) through their respective programs. Combined, they expect to train 70 Watts residents with the skills needed to be employed in green jobs. WLCAC will lead the Mega Watts Electric Vehicle Car Share Workforce Development and Job Creation Program. Residents will be recruited through Jordan Downs Forward and the three Watts Los Angeles WorkSource Centers.

WLCAC will offer free training to 30 Watts residents in a course on electric vehicles. This includes a partnership with a local community college where trainees will receive training. The Mega Watts project plans to hire six residents in support of the program. The three operations associates will ensure electric vehicles are "charged and in the right location," while three customer service associates will

Recent Accomplishments*

» **24 individuals were recruited for the Solar Watts Workforce Development Training (17 completed)**

*Includes only accomplishments during the last fiscal year (July 2021 through June 2022)

provide customer support and assist with outreach and marketing.

GRID Alternatives will recruit five cohorts of eight Watts residents for the Solar Watts Workforce Development Program. These residents will complete 20 hours of classroom training, 162 hours of in-field training, and 10 hours of OSHA training. Through these trainings, participants will receive a comprehensive education about electricity, solar photovoltaic installation, and worksite hazards.

Workforce Development Plan

Project Details

- Launch date: April 2019
- Anticipated completion date: July 2024
- Project lead: GRID Alternatives, WLCAC
- TCC grant funds: $327,386
- Leveraged funds: $5,300

Cumulative Progress Through FY 2021-2022

- 43 individuals have been recruited for the Solar Watts Workforce Development Training, of which 36 trainees completed.

PROFILES:
TCC-FUNDED PROJECTS

Tree People Street Tree Planting Event with community members. Photo credit: Tree People

TCC APPLICANTS CHOSE FROM A WIDE ARRAY OF PROJECT TYPES in their effort to achieve the three objectives of TCC, namely: (1) reductions in GHG; (2) improvements in public health and environmental benefits, and (3) expanded economic opportunity and shared prosperity. These various project types align with the suite of California Climate Investments overseen by various state agencies.[24] 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-UCB evaluation team) to estimate the benefits of each project. The following section provides an overview of the Watts Rising projects, aggregated by project type, that will use TCC dollars to achieve the aims of the program.

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

Affordable Housing and Sustainable Communities Project

Rendering of Jordan Downs Redevelopment S2. Photo credit: The Michaels Organization

INCREASING THE DENSITY OF AFFORDABLE HOUSING aims to reduce vehicle miles traveled (VMT), along with lowering housing and travel costs for Watts residents.[25] An affordable housing complex called Jordan Downs Phase S2 will be constructed by The Michaels Organization Co. with support from the City of Los Angeles and the Housing Authority of the City of Los Angeles (HACLA). It will include 81 affordable housing units and serve as a center for community education and engagement. The East Side Riders Bicycle Club, a local leading active transportation and mobility justice organization, has facilitated educational sessions at the facility, including a Bicycle Education and Safety Training (BEAST) and the League of Cycling Instructors trainings, in addition to hosting community bike rides. These events have promoted clean modes of transportation, with the aim to further decrease VMT. This project will also plant 25 trees, which sequester carbon and provide shading benefits.

Recent Accomplishments*

» As of June 2022, construction was more than 50% completed

** Includes only accomplishments during the last FY (July 2021 through June 2022)*

[25] For a definition of affordable, see Appendix A of the FY 2017-18 AHSC Program Guidelines.

Jordan Downs Phase S2

Project Details

» Launch date: June 2022
» Anticipated completion date: June 2023
» Project lifetime: 30 years
» TCC grant funds $13,250,000
» Leverage funds $26,446,312
» Project lead: HACLA and The Michaels Organization

Lifetime Benefits

» GHG emissions reductions: 8,169 $MTCO_2e$
» Energy cost savings: $3,515,959
» VMT reductions: 21,416,643
» Trees planted: 25
» Direct jobs from TCC dollars: 58.7 FTE
» Indirect jobs from TCC dollars: 35.7 FTE
» Induced jobs from TCC dollars: 46.9 FTE

Cumulative Progress Through FY 2021-2022

» Construction began during summer 2021.
» 7 BEAST classes held
» 1 community bike ride held

Responses to COVID-19

» East Side Riders Bicycle Club modified its BEAST Class program to be COVID safe.

Food Waste Prevention and Rescue Project

MudTown Farms. **Photo credit: UCLA Luskin Center for Innovation**

THE WATTS LABOR COMMUNITY ACTION COMMITTEE will lead the Mudtown Farms food rescue project, which reduces food waste while increasing local access to fresh produce. As part of this project, Food Forward, a nonprofit, will rescue 108 tons of food from the LA Produce Mart annually. This food will be sorted by trained volunteers and distributed to residents at regularly occurring events. Food that cannot be redistributed will be composted. This compost can be used by other Watts Rising projects or by residents. Thirty volunteers will be recruited and trained to assist with food distribution and composting efforts. This process helps to divert the amount of organic material that is sent to landfills, where it decomposes in the absence of oxygen and releases methane, a potent GHG.

Recent Accomplishments*

- Rescued 161 tons of produce
- Distributed to 3,550 community members
- Trained 246 volunteers in food waste recovery and composting

** Includes only accomplishments during the last FY (July 2021 through June 2022)*

Mudtown Farms

Project Details

» Launch date: April 2019
» Anticipated completion date: April 2023
» Project lifetime: 3 years
» TCC grant funds: $392,110
» Leverage funds: $4,579,393
» Project lead: Watts Labor and Community Action Committee

Lifetime Benefits

» GHG emissions reductions: 879 $MTCO_2e$
» Edible food rescued: 324 short tons
» Direct jobs from TCC dollars: 4.4 FTE
» Indirect jobs from TCC dollars: 1.1 FTE
» Induced jobs from TCC dollars: 1.7 FTE

Cumulative Progress Through FY 2021-2022

» 367 tons of food redistributed directly from MudTown Farms to community members
» 193 tons of food redistributed by partner agencies such as churches and community service organizations
» 574 tons of food collected from the LA Produce Mart
» 13,526 residents served in food distribution
» 644 volunteers across training events trained in food waste prevention and rescue and organics
» 27,500 pounds of green waste composted
» 4 residents completed the Watts Growers Certification Program.

Responses to COVID-19

» Ensured its food distribution followed COVID-19 public health safety guidelines by pre-bagging produce and distributing produce through a drive-through process
» Used social media for outreach and distributed other organizations' flyers during food distribution events
» Shared information with residents at food distribution events about Mayor Garcetti's L.A. Connected Program, an initiative to provide CARES Act application support resources

Low-Carbon Transit Operations Project

LADOT Electric DASH Bus. Photo credit: Watts Rising

THE DASH BUS ELECTRIFICATION PROJECT, led by the Los Angeles Department of Transportation, will replace 10 clean natural gas or propane-fueled buses with battery-electric buses. This will reduce the emission of local air pollutants and greenhouse gases. Five electric chargers will be installed to support these buses. Additionally, the Los Angeles Department of Transportation plans to increase the frequency of service from every 20 minutes to every 15 minutes, thereby improving local mobility options.

As LADOT begins production of its electric bus fleet, it has committed that the first electric DASH buses will be deployed to Watts, allowing the community to be on the forefront of greening the bus system.

Recent Accomplishments*

» **Bus manufacturers began production, which is in process**

** Includes only accomplishments during the last FY (July 2021 through June 2022)*

DASH Bus Electrification

Project Details

» Launch date: April 2019
» Anticipated completion date: July 2024
» Project lifetime: 10 years
» TCC grant funds: $1,700,000
» Leverage funds: $6,893,075
» Project lead: LADOT

Lifetime Benefits

» GHG emissions reductions: 36,435 $MTCO_2e$
» Travel cost savings: $310,025
» VMT reductions: 1,624,630
» Direct jobs from TCC dollars: 3.4 FTE
» Indirect jobs from TCC dollars: 2.6 FTE
» Induced jobs from TCC dollars: 3.4 FTE

Cumulative Progress Through FY 2021-2022

» LADOT received the first electric bus for inspection in June 2021.
» LADOT signed a contract with BYD Motors Inc. for 10 battery-electric DASH buses.

Responses to COVID-19

» Due to COVID-19 restrictions, the bus manufacturing factory in Lancaster was shut down multiple times, delaying production.

Low-Carbon Transportation Project

MegaWatts EV Car Share vehicle. **Photo credit: UCLA Luskin Center for Innovation**

GREEN COMMUTER and the **WATTS LABOR COMMUNITY ACTION COMMITTEE** are partnering on the Mega Watts Electric Vehicle Care Share project. This project will deploy 15 electric vehicles (EVs) in the community as part of a car-share program, as well as install 24 EV charging stations. Increasing the fleet of EVs for use can help reduce the need for cars that run on fossil fuels. This project also plans to train and hire Watts residents. WLCAC is working to offer electric vehicle training through its Worksource center connecting residents interested in servicing electric vehicles through a partnership with a community college. Recruitment is planned to begin Winter 2023.

The Mega Watts community engagement efforts will center on events and communication aimed at education. They plan to host annual Earth Day, National Drive Electric Week, and Ride Share Week, as well as a total of six Ride and Drive events throughout the grant period.

They will host educational events, information sessions and

Recent Accomplishments*

- 5 charging stations installed at Freedom Plaza. There are 3 Level-2 and 2 DC Fast Chargers
- 10,774.7 kWh actual energy usage from installed EV charging infrastructure
- All 15 vehicles are purchased with 2 Chevy Bolts wrapped in Watts Rising insignia to be used by the Street Team for community outreach purposes
- 155 attendees at educational programs at 4 community outreach events

** Includes only accomplishments during the last FY (July 2021 through June 2022)*

driver's license training workshops. This project will also conduct outreach, in the form of door-to-door and online, to recruit members for its car-share service. In addition, a Watts car-share associate from the community will be hired to oversee the daily operations of electric vehicle fleets and an all-electric car-sharing and van pool program. Additionally, the car-share associate will manage bookings and vehicle maintenance.

Mega Watts Electric Vehicle Car Share

Project Details

» Launch date: April 2019
» Anticipated completion date: May 2023
» Project lifetime: 3 years
» TCC grant funds: $1,833,862
» Leverage funds: $615,881
» Project Lead: Watts Labor and Community Action Committee; Green Commuter

Lifetime Benefits

» GHG emissions reductions: 2,618 $MTCO_2e$
» Direct jobs from TCC dollars: 8.2 FTE
» Indirect jobs from TCC dollars: 3.6 FTE
» Induced jobs from TCC dollars: 5.8 FTE

Cumulative Progress Through FY 2021-2022

» 5 chargers installed
» 3 Level-2 and 2 DC fast chargers installed
» 14,259 kWh of actual energy usage from installed EV charging infrastructure
» All 15 vehicles have been purchased, with two being used by the Watts Street Team to perform community engagement activities.
» 2 site host agreements executed
» 9 trainees recruited in year 2, but classes were suspended because of COVID

Responses to COVID-19

» Classes were suspended due to COVID-19.
» Green Commuter loaned three Nissan Leaf electric vehicles to the Senior Meal Delivery program at WLCAC starting in August 2020. In December 2020, one of the Leafs was swapped for an EV Star Cargo van.

Rooftop Solar and Energy Efficiency Projects

GRID Alternatives LA installing solar panels on a Watts home. Photo credit: Watts Rising

GRID ALTERNATIVES and **HABITAT FOR HUMANITY** are leading the two low-income weatherization programs that will provide energy cost savings to residents while avoiding GHG associated with electricity generation in part from fossil fuels. GRID Alternatives Greater Los Angeles is installing approximately 172.8 kilowatts of solar panels on 54 residences in the site area, for an average project size of 3.2 kilowatts. Habitat for Humanity is providing energy efficiency upgrades for 289 homes. These improvements could include low-flow faucets and shower heads, LED lighting, tier 2 power strips, vacancy/motion sensor, ceiling fans, window unit HVAC system replacement, smart thermostats, and refrigerant replacement, water heater blanket, water heater replacement, and more. Both projects will reduce energy costs for residents.

These projects developed an online Solar Watts and Energy Efficiency portal for residents, which enables them to sign up for an assessment, as well as reach online customer support.

Recent Accomplishments*

- Solar Watts executed 4 contracts and 4 solar photovoltaic installations that resulted in 8.6 kW of solar technology. It completed 17 site visits and contacted 100 residents through outreach and marketing materials
- The Energy Efficiency project completed 15 retrofits. 120 residents were contacted through direct outreach efforts and 165 residents attended outreach events and meetings

* Includes only accomplishments during the last FY (July 2021 through June 2022).

The Solar Watts and Energy Efficiency projects plan to conduct outreach via direct mail to all single-family homes in the TCC site, via digital ads and social media, as well as through multiple outreach events each year.

Solar Watts

Project Details

» Launch date: April 2019
» Anticipated completion date: April 2024
» Project lifetime: 30 years
» TCC grant funds: $1,315,152
» Leverage funds: $0
» Project lead: GRID Alternatives

Lifetime Benefits

» GHG emissions reductions: 2,304 $MTCO_2e$
» Energy cost savings: $3,085,061
» Renewable energy generation: 7.7 gigawatt hours
» Direct jobs from TCC dollars: 6.9 FTE
» Indirect jobs from TCC dollars: 2.7 FTE
» Induced jobs from TCC dollars: 4.8 FTE

Cumulative Progress Through FY 2021-2022

» 75 solar site visits completed
» 20 contracts were executed
» A combined 61.83 kW of solar on 20 single-family homes installed
» GRID Alternatives became the official project lead in Year 3.

Responses to COVID-19

» Focused outreach on mailers and online ads

Energy Efficiency

Project Details

» Launch date: April 2019
» Anticipated completion date: April 2023
» Project lifetime: 25 years
» TCC grant funds $1,802,955
» Leverage funds $0
» Project lead: Habitat for Humanity

Lifetime Benefits

» GHG emissions reductions 1,994 $MTCO_2e$
» Energy cost savings $517,204
» Direct jobs from TCC dollars: 9.4 FTE
» Indirect jobs from TCC dollars: 3.7 FTE
» Induced jobs from TCC dollars: 6.6 FTE

Cumulative Progress Through FY 2021-2022

» Over 300 different types of energy efficiency measures installed in single-family homes.
» 37 retrofit projects completed.
» 178 residents contacted directly for outreach purposes.
» 239 residents attending outreach events and meetings.
» Habitat for Humanity became the project lead in Year 3.

Responses to COVID-19

» Focused outreach on mailers and online ads.

Urban Community Forestry Projects

Gonzaque Village Nature Day Event. Photo credit: UCLA Luskin Center for Innovation.

THE FOUR WATTS RISING URBAN COMMUNITY FORESTRY projects focus on planting 1,450 trees, which provide shade and cooling benefits, as well as planting edible landscaping that will improve the availability of local fresh produce to Watts residents. As the trees mature, they will sequester carbon. Their shading benefits 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. These projects also include local training in tree care and maintenance, with a particular focus on training and hiring local youth. These projects are led by the Los Angeles Cleantech Incubator, Watts Labor Community Action Committee, North East Trees, and TreePeople.

Recent Accomplishments*

- North East Trees has met and surpassed street and residential trees planted
- 391 residential trees were distributed by Tree People
- 6 Youth Yardners trained through WLCAC's Youth Source Center and 2 rounds of the Growers Certification program
- The Watts CommunityTech Garden planted 10,890 square feet of garden

* Includes only accomplishments during the last FY (July 2021 through June 2022)

Greening Public Housing

The **Greening Public Housing** project resulted in the planting of 200 trees at three HACLA Public Housing Properties to increase the tree canopy. Up to 10 local youth will be hired as a part of the project and will participate in an Urban Forestry Curriculum for Youth to learn about tree planting and maintenance. The youth team will then teach resident volunteers how to plant and care for the trees planted in their community. Events associated with the project will include community meetings, workshops, and a planting day.

Project Details

» Launch date: April 2019
» Completion date: July 2024
» Project lifetime: 40 years
» TCC grant funds: $275,475
» Leverage funds: $64,500
» Project lead: North East Trees

Lifetime Benefits

» GHG emissions reductions: 421 $MTCO_2e$
» Trees planted: 200
» Direct jobs from TCC dollars: 2.9 FTE
» Indirect jobs from TCC dollars: 0.6 FTE
» Induced jobs from TCC dollars: 1.0 FTE

Cumulative Progress Through FY 2021-2022

» Planting of 200 trees completed
» 9 local youth trained
» 568 residents contacted through outreach in English
» 4 local youth connected with employment opportunities and provided ongoing education in urban forestry, community engagement, field data surveying and native habitat restoration

Responses to COVID-19

» North East Trees assisted the Residential Advisory Committees, located at HACLA's public housing, with food distributions.
» Adjusted outreach plans to conduct one-on-one discussions using COVID-19 safety protocols instead of group workshops on tree care and maintenance

Greening Watts

The **Greening Watts** project will result in a total of 1,000 trees planted throughout the Watts project area. This includes 500 trees planted along streets, in parks, school yards, and parking lots, or other open spaces by North East Trees and Tree People each. North East Trees will work with the City of Los Angeles and Watts residents through community planning meetings to determine locations to plant trees. An additional 800 trees will be distributed to local residents, who can learn how to care for their tree at Tree Care workshops. Additionally, project leads will host 25 tree planting events, 15 tree distribution events, and 18 tree care events with the help of recruited volunteers.

Project Details

- Launch date: April 2019
- Anticipated completion date: July 2024
- Project lifetime: 40 years
- TCC grant funds: $1,055,918
- Leverage funds: $91,575
- Project lead: North East Trees and Tree People

Lifetime Benefits

- GHG emissions reductions: 3,778 $MTCO_2e$
- Trees planted: 1,000
- Direct jobs from TCC dollars: 11.7 FTE
- Indirect jobs from TCC dollars: 2.1 FTE
- Induced jobs from TCC dollars: 4 FTE

Cumulative Progress Through FY 2021-2022

- Over 2,000 trees planted between both project partners
- Over 1,000 trees distributed to residents at tree planting events
- About 2,446 residents contacted through outreach efforts
- 731 volunteers participated in tree planting and care events with Tree People.

Responses to COVID-19

- Greening Watts partners distributed trees by putting them in trucks and distributing them directly to residents.
- Adjusted outreach plans to conduct one-on-one discussions using COVID-19 safety protocols instead of group workshops on tree care and maintenance

Watts Community Tech Garden

The Watts Community Tech Garden is expanding on the existing garden at Edwin Markham Middle School and adding water and energy efficient technologies. The project is led by the Los Angeles Cleantech Incubator (LACI). Middle school students can take course electives that use the garden as an educational laboratory. Middle and high school students volunteer in the garden, and multiple high school students are part of a CHG paid intern training program. The garden's frequent community events, like the Annual Community Harvest Festival and Community Gardening Days, provide an opportunity for community members to take home some of the organic produce as well as plant seeds for the upcoming season. The garden also offers community tours, which include culinary workshops and lessons on urban community gardening. Additionally, 100 shade trees grown by students through the current program will be given away to Watts residents at the quarterly community volunteer days.

Project Details

» Launch date: April 2019
» Anticipated completion date: March 2024
» Project lifetime: 40 years
» TCC grant funds: $364,000
» Leverage funds: $0
» Project lead: Los Angeles Cleantech Incubator

Lifetime Benefits

» GHG emissions reductions: 210 $MTCO_2e$
» Trees planted: 100
» Direct jobs from TCC dollars: 2.4 FTE
» Indirect jobs from TCC dollars: 0.8 FTE
» Induced jobs from TCC dollars: 1.7 FTE

Cumulative Progress Through FY 2021-2022

» 10,890 square feet of garden planted
» Over 10,500 pounds of food distributed and a 200-square-foot greenhouse constructed
» 18 distribution days, 1 community volunteering day, and 1 harvest festival held
» 100+ attendees engaged across the community events described above
» 1 site inspection with all project partners and vendors
» Garden clean up days conducted by WLCAC

Responses to COVID-19

» The Watts Community Tech Garden distributed food grown in its garden to alleviate pandemic-exacerbated food insecurity in the community.

Watts Yardners

To further add to the supply of local fresh food, the **Watts Yardners Program** will create 50 urban minifarms to be planted in residents' yards. Led by the Watts Labor Community Action Committee, these farms will include 150 trees and raised edible gardens with a variety of fruits, vegetables, and other edible plants. Participants will be recruited for a Watts Growers Training Program. Informational workshops will also be provided for those interested in learning about urban sustainability and green infrastructure.

Project Details

» Launch date: April 2019
» Anticipated completion date: July 2024
» Project lifetime: 40 years
» TCC grant funds: $523,549
» Leverage funds: $50,000
» Project Lead: Watts Labor Community Action Committee

Lifetime Benefits

» GHG emissions reductions: 316 $MTCO_2e$
» Trees planted: 150
» Direct jobs from TCC dollars: 5.2 FTE
» Indirect jobs from TCC dollars: 1 FTE
» Induced jobs from TCC dollars: 1.9 FTE

Cumulative Progress Through FY 2021-2022

» 3 rounds of the Growers Certification completed
» 6 Youth Yardners trained through WLCAC's Youth Source Center
» 5 farm site host agreements completed
» 4 community members completed the first round of the grower certificate program (in coordination with the Mudtown Farms Food Waste and Prevention Rescue Program). The curriculum was adapted to meet community needs and to be more culturally appropriate.

Responses to COVID-19

» Classes were suspended due to COVID-19.

Urban Greening Projects

Watts Cool Schools 96th Tree Planting Event. Photo credit: Watts Rising

THE URBAN GREENING PROJECTS IN WATTS will result in the planting of plants and 475 trees, the creation of parks, and pedestrian and bicycle improvements throughout the site area. 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. Bicycle and pedestrian improvements aim to reduce car travel by improving alternative mobility options. For these projects, leads include: Los Angeles Department of Transportation, Grant Housing and Economic Development Corporation, From Lot to Spot,Los Angeles Unified School District, Tree People, BRIDGE Housing Corporation, and Housing Authority of Los Angeles. Project leads will be responsible for tree maintenance and care during the grant term. After the grant term, the City of Los Angeles Bureau of Street Services will assume maintenance responsibilities.

Recent Accomplishments*

- WalkBike Watts successfully held 11 outreach meetings and had an average of 50 students using the Safe Passages Program
- Greening the A Line completed its 200 tree planting goal

* Includes only accomplishments during the last FY (July 2021 through June 2022)

Century Gateway Park

Century Gateway Park will develop a 0.6-acre park near the intersection of East Century Boulevard and Grape Streets. The park will have 35 trees and local and drought-tolerant plants. **Century Gateway Park** will host community meetings to solicit resident input on how to prioritize park components and uses, as well as to keep the community updated on park plans and progress.

Project Details

» Launch date: June 2022
» Anticipated completion date: January 2024
» Project lifetime: 40 years
» TCC grant funds: $428,575
» Leverage funds: $260,683
» Project lead: The Michaels Organization

Lifetime Benefits

» GHG emissions reductions: 69 $MTCO_2e$
» Energy cost savings: $1,185
» Trees planted: 35
» Direct jobs from TCC dollars: TBD FTE
» Indirect jobs from TCC dollars: TBD FTE
» Induced jobs from TCC dollars: TBD FTE

Cumulative Progress Through FY 2021-2022

» 3 community engagement events held
» 528 attendees at community engagement and outreach events
» 676 residents contacted through outreach

Freedom Tree Park

Freedom Tree Park will develop a 1-acre park, which will be located across from the Century Gateway Park and have 100 plants and 35 trees. Freedom Tree Park will host community meetings to solicit resident input on how to prioritize park components and uses, as well as keep the community updated on park plans and progress.

Project Details

- Launch date: April 2019
- Anticipated completion date: September 2023
- Project lifetime: 40 years
- TCC grant funds: $1,157,900
- Leverage funds: $0
- Project lead: Housing Authority of the County of Los Angeles (HACLA)

Lifetime Benefits

- GHG emissions reductions: 69 $MTCO_2e$
- Energy cost savings: $1,184
- Trees planted: 35
- Direct Jobs from TCC dollars: 8.1 FTE
- Indirect Jobs from TCC dollars: 1.9 FTE
- Induced Jobs from TCC dollars: 5.3 FTE

Cumulative Progress Through FY 2021-2022

- Over 300 attendees at four community events

Greening the A Line

The **Greening the A Line** (formerly known as the LA Metro Blue Line) project will result in the planting of 200 trees in the first and last mile radius of the 103rd Street/Rosa Parks Station of the Metro A Line. Greening the A Line will recruit community volunteers to assist with 10 tree planting activities and events and 19 tree care activities and events.

Project Details

» Launch Date: April 2019
» Anticipated Completion Date: January 2023
» Project lifetime: 40 years
» TCC Grant Funds: $305,179
» Leverage Funds: $0
» Project Lead: TreePeople

Lifetime Benefits

» GHG emissions reductions: 393 $MTCO_2e$
» Energy Cost Savings: $6,770
» Trees planted: 200
» Direct Jobs from TCC dollars: 2.9 FTE
» Indirect Jobs from TCC dollars: 0.7 FTE
» Induced Jobs from TCC dollars: 1.2 FTE

Cumulative Progress Through FY 2021-2022

» 15 tree planting events held
» 14 tree care and maintenance events held
» 92 community members trained on tree care
» 200 trees planted
» 235 volunteers at tree planting events

WalkBike Watts

The Los Angeles Department of Transportation and the City of Los Angeles Department of Cultural Affairs are leading the **WalkBike Watts** project, which involves pedestrian and bicyclist improvements, the development of a cultural trail, and the establishment of a Safe Passage Program for schools. The pedestrian and bicyclist improvements include the construction of 3.8 miles of bicycle sharrows and 1.4 miles of buffered bicycle lines, as well as the installation of nine crossing beacons, four new signals and one signal modification, five leading pedestrian intervals, eight curb extensions, bus pads and ADA landings, two curb ramps, and the planting of 10 trees. The cultural trail, which is dedicated to highlighting Watts' rich history, art and culture, will include way-finding signage, will be designed and implemented through a community engagement process, with a goal of soliciting input and design from the local artist community. The Urban Peace Institute and We Care Outreach will lead the creation of the Safe Passage Program, which will create safer routes for students from 112th Street, Flournoy, and Florence Griffith Joyner elementary schools, and Markham Middle School. Local adults will be trained to help ensure the safety of students as they commute to and from school each day along the identified passages.

Project Details

- » Launch date: April 2019
- » Anticipated completion date: January 2023
- » Project lifetime: 40 years
- » TCC grant funds: $3,511,260
- » Leverage funds: $1,013,110
- » Project lead: Los Angeles Department of Transportation, Department of Cultural Affairs, Urban Peace Institute, and We Care Outreach

Lifetime Benefits

- » GHG emissions reductions: 3,495 $MTCO_2e$
- » Energy cost savings: $339
- » Travel Cost Savings: $4,594,559
- » VMT reductions: 407,166
- » Trees planted: 10
- » Direct jobs from TCC dollars: 16.4 FTE
- » Indirect jobs from TCC dollars: 7.1 FTE
- » Induced jobs from TCC dollars: 13 FTE

Cumulative Progress Through FY 2021-2022

- » 4 community outreach and engagement events where 58 community members attended.
- » About 600 students a day use the 8 Safe Passage routes, led by four trained and hired Safe Passage Workers.

Responses to COVID-19

- » The Urban Peace Institute, part of the WalkBike Watts project, moved its community engagement meetings online. It conducted safe passage training and provided COVID-19 information and resources to support parents and stakeholders.

Watts Cool Schools - Green Schools

The **Watts Cool Schools - Green Schools** project aims to provide cooling benefits to four local elementary schools through painting playgrounds with a cool coat, installing 80,000 square feet of cool pavement, removing asphalt, and planting 112 trees. Watts Cool Schools - Green Schools will facilitate the development of an Eco-club to help engage and educate students on urban greening. At each school, the project partner will host a public presentation on the project and a community sustainability workshop.

Project Details

» Launch date: April 2019
» Anticipated completion date: January 2023
» Project lifetime: 40 years
» TCC grant funds: $621,861
» Leverage funds: $13,755
» Project lead: Los Angeles Unified School District; TreePeople

Lifetime Benefits

» GHG emissions reductions: 220 $MTCO_2e$
» Energy cost savings: $3,791
» Trees planted: 112
» Direct jobs from TCC dollars: 4.3 FTE
» Indirect jobs from TCC dollars: 1.1 FTE
» Induced jobs from TCC dollars: 2.8 FTE

Cumulative Progress Through FY 2021-2022

» Tree People and LAUSD finalized a Development Agreement authorizing construction at four LAUSD campuses: 112th St. Elementary School, 96th St. Elementary School, Compton Avenue Elementary School, and Weigand Avenue Elementary School.
» Soil and geological testing has been completed for project sites and design finalized.

Responses to COVID-19

» School closures during the COVID-19 pandemic delayed the ability to work on school sites or with students.

Weigand Elementary Urban Trees/Rain Garden

The **Weigand Elementary Urban Trees/Rain Gardens** project will result in the planting of 450 native plants, 43 native trees, and installation of 2,400 square feet of pervious rain gardens near Weigand Elementary School. Urban Greening projects will coordinate on community engagement that focuses on recruiting and educating community members through regular events. Weigand Elementary Urban Trees/Rain Gardens will host community tree care meetings to educate attendees about the project and to recruit tree adopters, who will be responsible for tree watering during the grant period. Additional tree adopters will be recruited via phone, bilingual flyers, and door-to-door canvassing.

Project Details

» Launch date: April 2019
» Anticipated completion date: January 2023
» Project lifetime: 20 years
» TCC grant funds: $124,439
» Leverage funds: $10,038
» Project lead: Tree People

Lifetime Benefits

» GHG emissions reductions: 84 $MTCO_2e$
» Energy cost savings: $1,456
» Trees planted: 43
» Direct jobs from TCC dollars: 0.9 FTE
» Indirect jobs from TCC dollars: 0.2 FTE
» Induced jobs from TCC dollars: 0.5 FTE

Cumulative Progress Through FY 2021-2022

» About 116 trees planted with 116 number of tree adopters
» 17 community outreach and engagement events held with a combined 546 attendees in English and in Spanish
» 40 check-ins with tree adopters and conducted three lessons for 59 Jordan High School students
» Tree People was selected as project lead in winter 2022.

Responses to COVID-19

» Weigand Elementary Urban Trees/Rain Gardens conducted two lessons for Jordan High School students remotely for Love community bike ride in March 2021.

Wilmington Avenue Great Streets

On a half-mile stretch of Wilmington Avenue, 40 trees and 3,750 square feet of plants will be planted, and eight landscaped bump outs will be installed to improve pedestrian areas as part of the **Wilmington Avenue Great Streets** project.

Project Details

» Launch date: April 2019
» Anticipated completion date: July 2024
» Project lifetime: 20 years
» TCC grant funds: $868,000
» Leverage funds: $0
» Project lead: Streets LA

Lifetime Benefits

» GHG emissions reductions: 268 $MTCO_2e$
» Energy cost savings: $1,354
» Travel cost savings: $320,760
» VMT reductions: 27,700
» Trees planted: 40
» Direct jobs from TCC dollars: 6.1 FTE
» Indirect jobs from TCC dollars: 1.5 FTE
» Induced jobs from TCC dollars: 4 FTE

Cumulative Progress Through FY 2021-2022

» Project implementation pending

PROFILES:
LEVERAGED PROJECTS

California Climate Action Corps Fellows at a Watts Rising Community Event. Photo credit: Watts Rising Collaborative

IN ADDITION TO THE 17 WATTS RISING PROJECTS that are receiving TCC funding, the Housing Authority of the City of Los Angeles (HACLA) has also included six leveraged projects as part of its Watts Rising package. These leveraged projects are independently funded and help further the objectives of TCC. In Watts, these leveraged projects include: (1) Jordan Downs Phase 1B, (2) 103rd St Urban Trees/Rain Garden, (3) Central Avenue Streetscape, (4) 103rd Street Streetscape, (5) Century Boulevard Complete Streets, (6) and Jordan Downs Retail Center. One project, Success Avenue Green Streets, lost funding since the beginning of project implementation and will no longer be included in the suite of Watts Rising projects. These projects include the planting of trees and plants, pedestrian improvements, and the construction of more affordable housing units and a grocery store.

The TCC grant will allow HACLA to augment its existing efforts by funding more affordable housing, skilled employment opportunities, safer biking and walking infrastructure, and cooler conditions during extreme heat events. The following section provides an overview of the leveraged projects underway in Watts.

103rd Street Streetscape

Rendering of 103rd Street Streetscape improvements. **Photo credit: LA County Department of Public Works**

THE CITY OF LOS ANGELES Bureau of Street Services is installing pedestrian lighting and ADA ramps, replacing curbs, gutters, and sidewalks, along with planting 50 trees on a 0.4-mile stretch of 103rd Street. Pedestrian improvements promote alternatives to driving cars, while trees will sequester carbon and provide cooling benefits.

103rd Street Streetscape

Project Details

- » Launch date: NA
- » Anticipated completion date: 2020
- » Project lead: City of Los Angeles Bureau of Street Services
- » TCC grant funds: $0
- » Leveraged funds: $836,700

Cumulative Progress Through FY 2021-2022

- » Project was completed in 2020.

103rd Street Urban Trees/Rain Garden

Heart of Watts Community Garden Opening Event. Photo credit: From Lot to Spot

FROM LOT TO SPOT will plant 600 native plants and 50 native trees, as well as install 2,800 square feet of pervious rain gardens. Associated events will include two community tree care meetings and a planting day. This project will also design related lesson plans for Jordan High School students. Trees and plants sequester carbon, while the additional vegetative coverage reduces the urban heat island effect on hot days and absorbs stormwater on rainy days.

103rd Street Urban Trees/Rain Garden

Project Details

- » Launch date: TBD
- » Anticipated completion date: TBD
- » Project lead: TreePeople
- » TCC grant funds: $0
- » Leveraged funds: $104,166

Cumulative Progress Through FY 2021-2022

- » 17 community outreach and engagement meetings held in English and Spanish with 546 attendees
- » 700 residents through outreach in English and 900 residents in Spanish contacted
- » 59 Jordan High School students instructed across three lessons
- » Parkway cuts and concrete removals have been completed.

Responses to COVID-19

- » Two of the three Jordan High School lessons were distance learning presentations.

Central Avenue Streetscape

Rendering for Central Avenue Streetscape improvements. **East Side of Central Avenue. Photo credit: Watts Neighborhood Council**

THE CITY OF LOS ANGELES Bureau of Street Services and Grant Housing and Economic Development Corporation are collaborating to make transit and pedestrian improvements along a quarter mile of Central Avenue between 103rd Street and the Imperial Highway and along a quarter mile between 108th and 104th Streets. These pedestrian improvements include the construction and installation of three median islands, six bumpouts, three signal modifications, four roadway lights, five bus pads, 12 accessible gutter ramps, and the planting of 81 trees. The bicycle and pedestrian improvements aim to reduce car travel by improving alternative mobility options. This project will also include the replacement of 58,000 square feet of sidewalk and 2,500 square feet of curbs and gutters, as well as the addition of tree wells, rain gardens, and permeable pavement. These changes will help to reduce the urban heat island effect and improve stormwater capture.

Central Avenue Streetscape

Project Details

- » Launch date: TBD
- » Anticipated completion date: TBD
- » Project lead: City of Los Angeles Bureau of Street Services; Grant Housing and Economic Development Corporation
- » TCC grant funds: $0
- » Leveraged funds: $4,127,890

Cumulative Progress Through FY 2021-2022

- » Implementation pending

Century Boulevard Complete Street

Century Boulevard on its Grand Opening Day after improvements were complete. Photo credit: Mayor Eric Garcetti, @MayorOfLA

THE CITY OF LOS ANGELES Bureau of Street Services and Bureau of Engineering constructed a half-mile Complete Street on Century Boulevard. According to the City of Los Angeles Complete Street Design Guide, the aim of a Complete Street is "to ensure that the safety, accessibility, and convenience of all transportation users — pedestrians, bicyclists, transit riders, and motorists — is accommodated." The improvements for this project include the installation of street lights, signals, sidewalks, and parkways, and 155 planted trees. These pedestrian and bicyclist improvements promote alternative mobility options to cars. The planted trees sequester carbon, reduce the urban heat island effect, and absorb stormwater on rainy days.

Century Boulevard Complete Street

Project Details

- » Launch date: NA
- » Anticipated completion date: August 2018
- » Project lead: City of Los Angeles Bureau of Street Services
- » TCC grant funds: $0
- » Leveraged funds: $10,689,780

Cumulative Progress Through FY 2021-2022

- » Project was completed in August 2018.

Jordan Downs Phase 1B

New Harvest at Jordan Downs Phase 1B. Photo credit: HACLA

THE MICHAELS DEVELOPMENT CO. led construction of 135 affordable multi-family housing units on Century Boulevard. This project includes the planting of 300 trees. This development increases the density of the neighborhood, which should result in a reduction in the vehicle miles traveled, along with lowering housing costs for Watts residents. The trees will sequester carbon and shade nearby buildings, which should reduce the demand for electricity for cooling purposes, reduce the urban heat island effect, and absorb stormwater.

Jordan Downs Phase 1B

Project Details

- » Launch date: May 2018
- » Anticipated completion date: May 2022
- » Project lead: The Michaels Organization
- » TCC grant funds: $0
- » Leveraged funds: $67,682,777

Cumulative Progress Through FY 2021-2022

- » Construction completed

Jordan Downs Retail Center

Jordan Downs Phase 1B Retail Center. **Photo credit: Freedom Plaza Watts.**

PRIMESTOR DEVELOPMENT INC. has constructed a 31,299-square-foot grocery store, including the planting of 80 trees, located at Freedom Plaza (formerly known as Jordan Downs retail center). This will help to increase the density of the neighborhood and accessibility of local shopping options and jobs, which aim to reduce vehicle miles traveled. Furthermore, the additional trees will sequester carbon and provide cooling benefits.

Jordan Downs Retail Center

Project Details

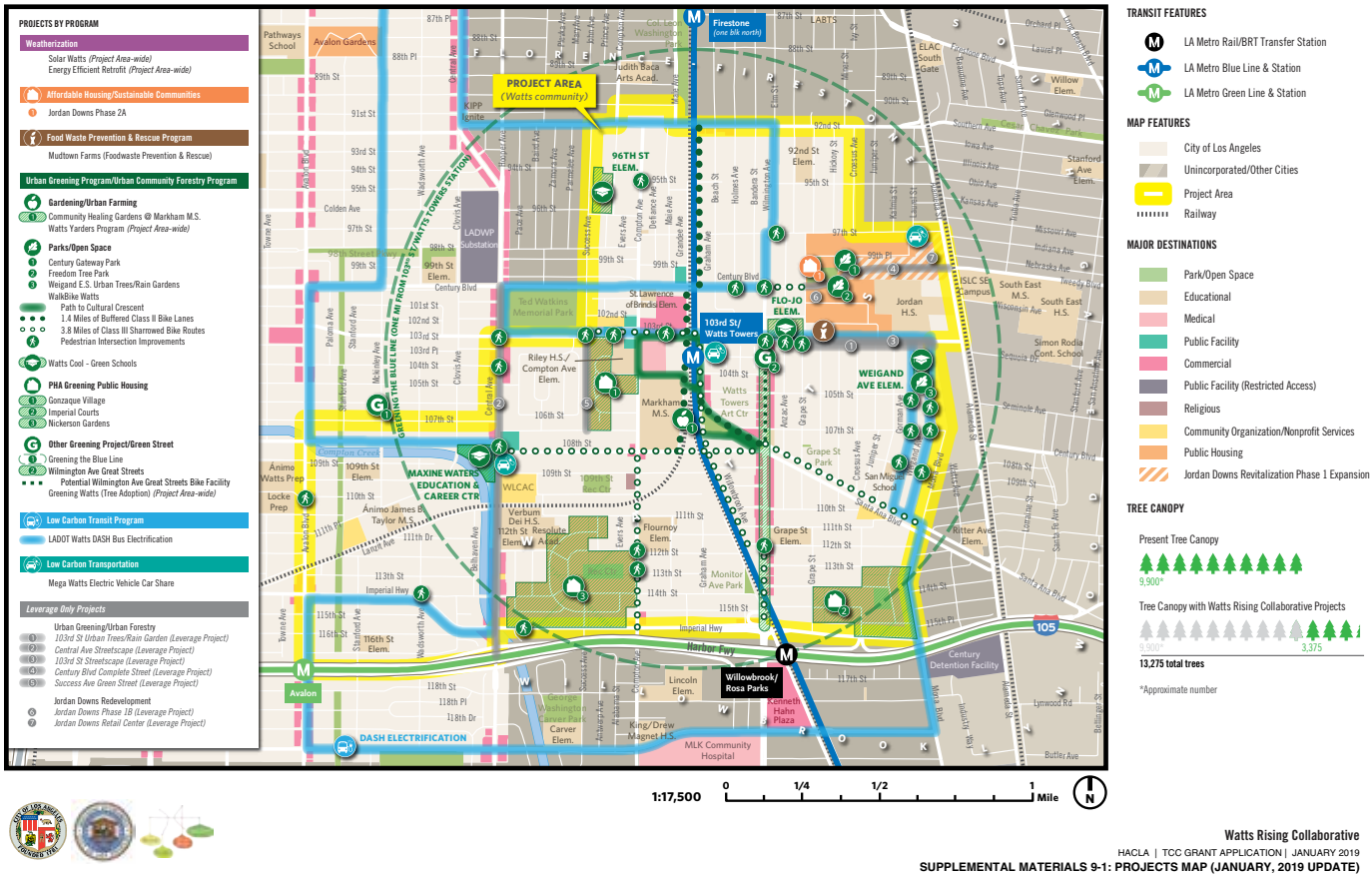
» Launch date: TBD
» Anticipated completion date: October 2020
» Project lead: Primestor Development Inc.
» TCC grant funds: $0
» Leveraged funds: $44,314,118

Cumulative Progress Through FY 2021-2022

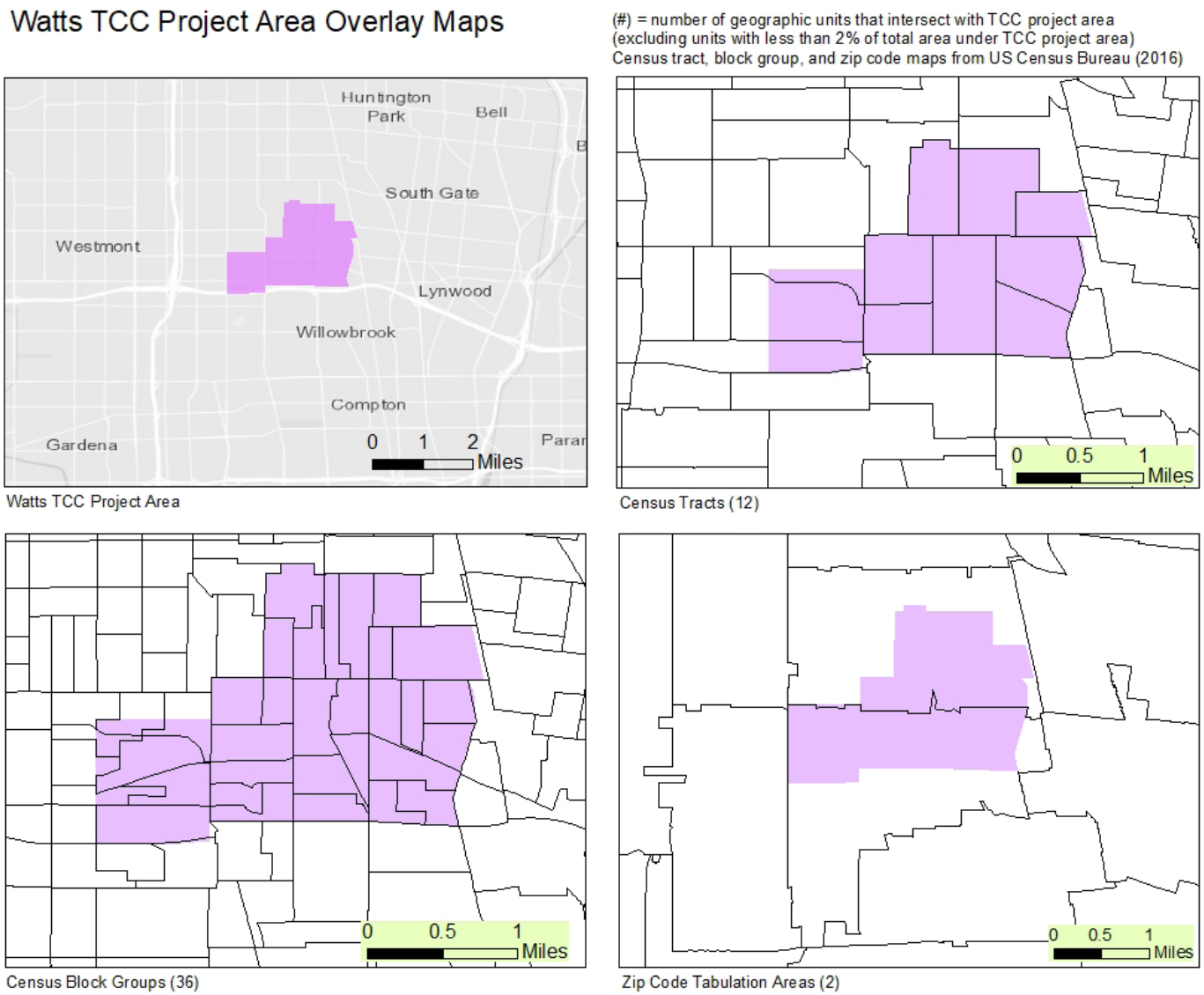
» Completed all construction including of Nike Inc., Smart & Final Extra!, Ross Stores Inc., and Blink Fitness
» 31,299-square-foot grocery store constructed

APPENDICES

Appendix 1: Supplemental Maps



Detailed map of Watts Rising project locations. Photo credit: Watts Rising Collaborative



Maps depicting the scale of the TCC project area. **Photo 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	1.2.0	N/A
Energy cost savings	California Air Resources Board (CARB) Co-benefit Assessment Methodology for Energy and Fuel Cost Savings*	N/A	9/13/2019
Greenhouse gas (GHG) reductions	CARB Quantification Methodology (QM): Affordable Housing and Sustainable Communities Program	FY 2016-17	10/2/2017
	CARB QM: Low-Carbon Transportation Program	FY 2016-17	4/4/2017
	CARB QM: Low-Income Weatherization Program	FY 2016-17	N/A
	CARB QM: Transit and Intercity Rail Capital Program	FY 2016-17	N/A
	CARB QM: Urban and Community Forestry Program	FY 2016-17	12/8/2016
	CARB QM: Urban Greening Grant Program	FY 2016-17	N/A
	CARB QM: Waste Diversion Grant and Loan Program	FY 2015-16/ FY 2016-17	N/A
Jobs	CARB Job Co-benefit Assessment Methodology	N/A	4/29/2019
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: Affordable Housing and Sustainable Communities Program	FY 2016-17	10/2/2017
	CARB QM: Low-Income Weatherization Program	FY 2016-17	N/A
	CARB QM: Urban Greening Grant Program	FY 2016-17	N/A

*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).

**To calculate travel cost savings, CARB's travel cost-savings methodology relies on estimates about changes in transit ridership. For Affordable Housing and Sustainable Communities (AHSC) projects, subsequent changes in ridership are unknown, and CARB's methodology does not provide a method for calculating travel cost savings in the face of that unknown. Thus, the UCLA-UCB evaluation team expanded upon CARB's methodology by estimating travel cost savings from AHSC projects without ridership estimates. To do so, the evaluation team conservatively assumes the following: (1) VMT reductions associated with the AHSC projects are achieved by drivers who switch to the most expensive alternative mode (which between transit, biking, and walking would be transit); (2) all individuals in the apartment complex will take transit so often that they buy a monthly transit pass because that's the most economical thing to do at high levels of transit ridership; and (3) that all individuals in the apartment complex buy a pass for the duration of the project lifetime (less the number of months for which they receive a free pass). The evaluation team estimated the number of individuals in the apartment complex by multiplying the number of units by the average household size for the TCC census tracts.

Appendix 3: Watts Rising Collaborative Structure

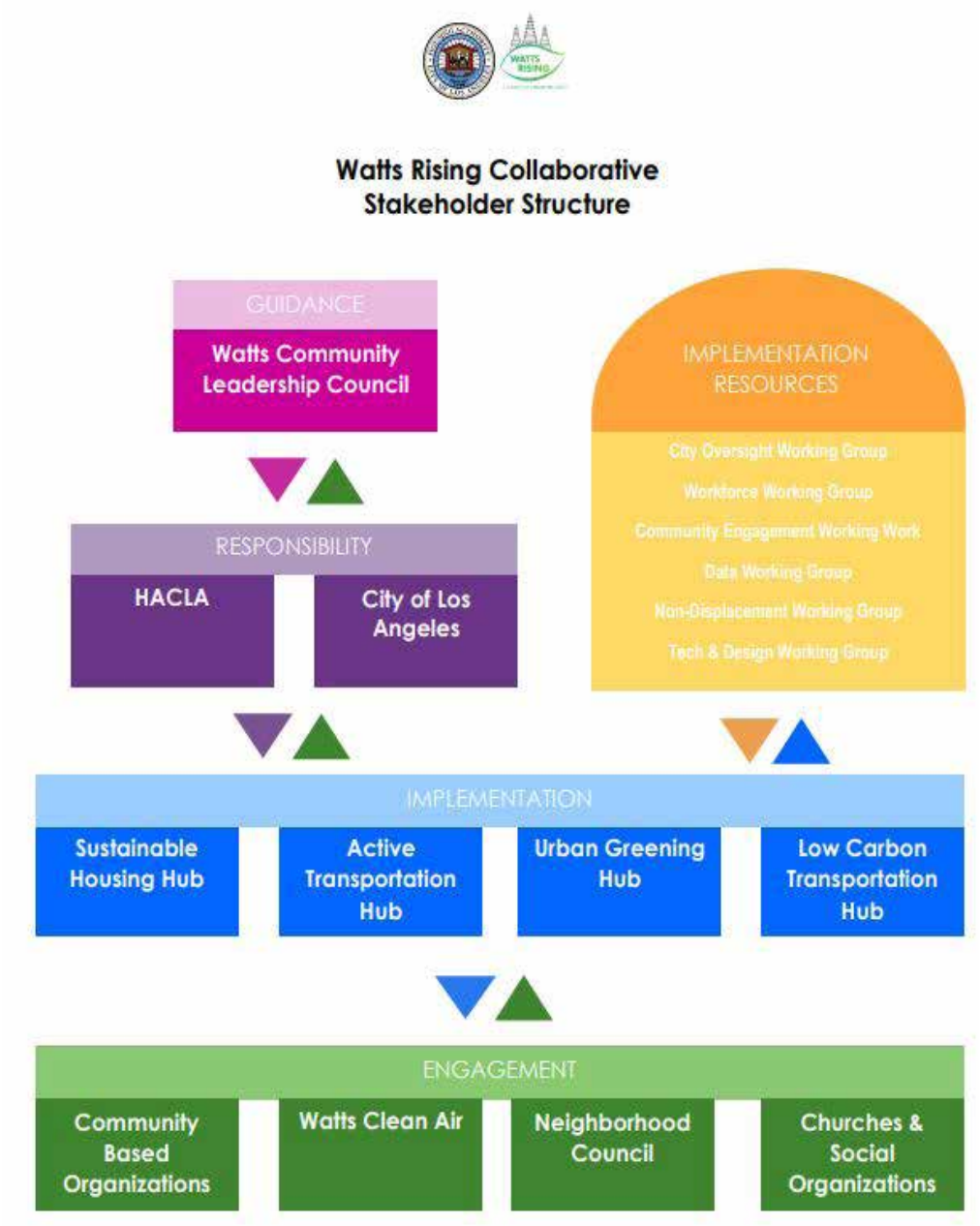


Diagram showing the Watts Rising Collaborative Structure. **Photo credit: Housing Authority of Los Angeles and Watts Rising**

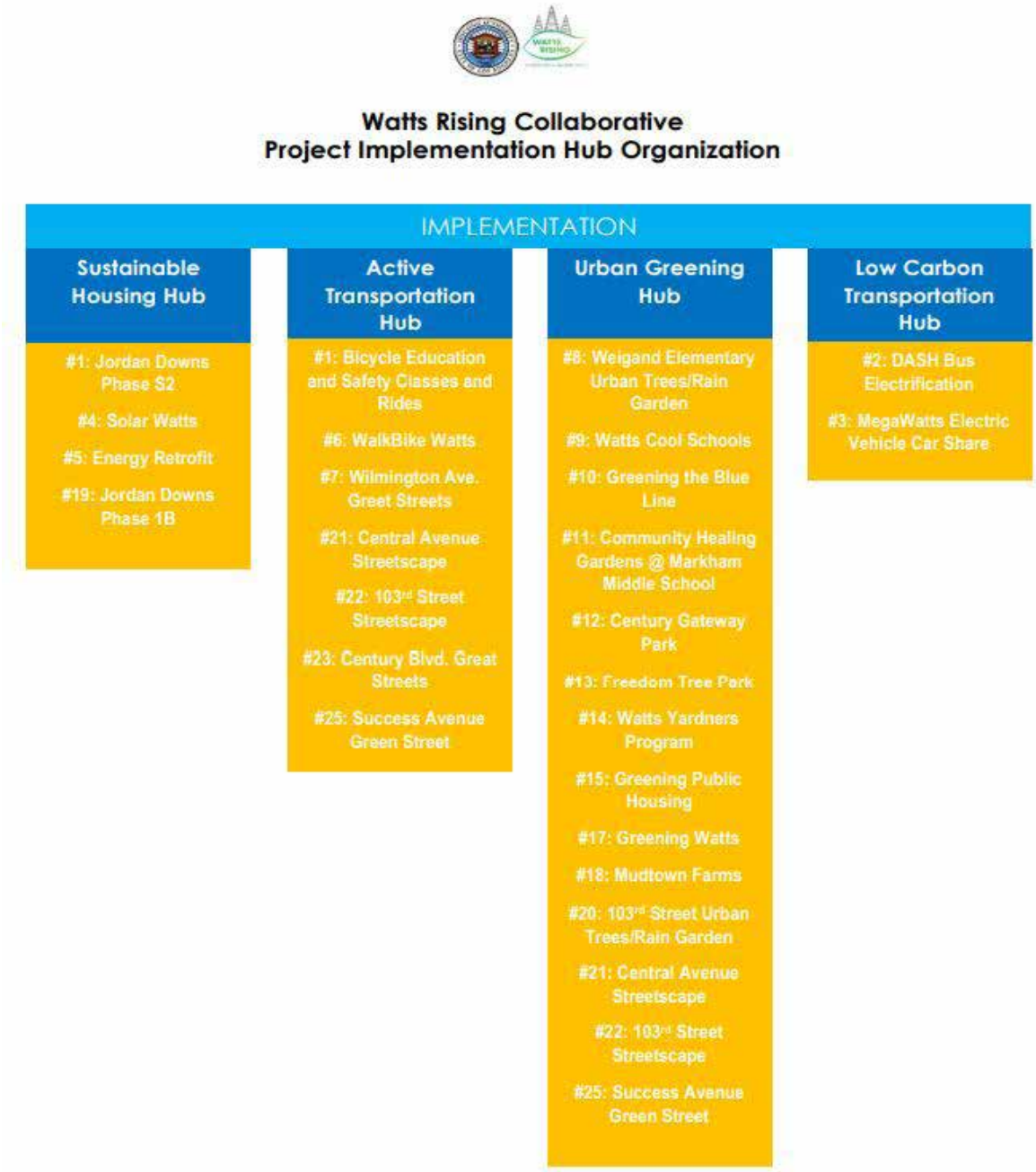


Diagram showing the Watts Rising Hub Structure. **Photo credit: Housing Authority of Los Angeles and Watts Rising**

Appendix 4: Watts Rising Community Advisory Group

Name	Category
Jackie Badejo	Resident
Jorge Gonzalez*	Former Resident
Adelina McCloud	Resident
Sandra Garcia	Resident
Cristal Macias	Resident
Blanca Gonzalez	Resident
Amada Valle	Resident
Juana Ortega	Resident
Fatima Iqbal-Zubair*	Former Resident

***No longer residents/stakeholders of Watts but were at the time of the Community Advisory Group inception in March 2021.**

Appendix 5: Watts Rising TCC Census Tracts

Census Tract GeoID Number	City	Population (ACS 2011-2016 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)	Overlap with TCC Project Area (%)
14000US06037241001	Los Angeles	4,580	0.35	13,086	44%
14000US06037240900	Los Angeles	5,745	0.41	13,901	68%
14000US06037242700	Los Angeles	5,969	0.39	15,228	100%
14000US06037242100	Los Angeles	2,911	0.18	16,404	95%
14000US06037242000	Los Angeles	4,159	0.25	16,656	100%
14000US06037240800	Los Angeles	4,625	0.25	18,762	31%
14000US06037242300	Los Angeles	4,577	0.24	18,815	100%
14000US06037242200	Los Angeles	6,366	0.31	20,274	100%
14000US06037243000	Los Angeles	7,147	0.28	25,804	99%
14000US06037242600	Los Angeles	4,980	0.18	27,097	100%
14000US06037243100	Los Angeles	6,459	0.23	27,559	100%

Appendix 6: Watts Rising Control Census Tracts

Census Tract GeoID Number	City	Population (ACS 2011-2016 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)
14000US06037239601	Los Angeles	3,644	0.16	22,350
14000US06037219901	Los Angeles	4,444	0.20	21,928
14000US06037232120	Los Angeles	5,715	0.20	28,363
14000US06037221500	Los Angeles	4,011	0.15	27,286
14000US06037237720	Los Angeles	3,134	0.13	24,958
14000US06037238310	Los Angeles	4,927	0.15	32,138
14000US06037238320	Los Angeles	4,133	0.18	22,859
14000US06037237710	Los Angeles	3,281	0.17	19,658
14000US06037241120	Los Angeles	5,082	0.26	19,832
14000US06037231100	Los Angeles	3,516	0.35	10,185
14000US06037231210	Los Angeles	3,509	0.12	28,341
14000US06037231300	Los Angeles	5,142	0.25	20,257
14000US06037231600	Los Angeles	6,957	0.37	18,874
14000US06037231710	Los Angeles	4,081	0.13	32,644
14000US06037240500	Los Angeles	6,509	0.31	20,748
14000US06037237500	Los Angeles	2,716	0.13	20,853
14000US06037232500	Los Angeles	4,762	0.30	16,066
14000US06037232700	Los Angeles	5,968	0.28	21,139
14000US06037240600	Los Angeles	5,685	0.26	21,786
14000US06037237101	Los Angeles	3,653	0.24	15,043
14000US06037237202	Los Angeles	4,714	0.43	11,014
14000US06037237401	Los Angeles	3,737	0.20	18,753
14000US06037239202	Los Angeles	5,347	0.49	10,856
14000US06037239501	Los Angeles	3,599	0.18	19,657
14000US06037239602	Los Angeles	3,586	0.14	25,937
14000US06037239802	Los Angeles	5,102	0.24	21,682
14000US06037239801	Los Angeles	3,524	0.14	24,617
14000US06037228500	Los Angeles	4,581	0.17	26,431
14000US06037231720	Los Angeles	4,789	0.18	26,265
14000US06037237102	Los Angeles	3,239	0.18	18,238
14000US06037241400	Los Angeles	3,377	0.22	15,196
14000US06037240010	Los Angeles	3,625	0.23	15,955
14000US06037241202	Los Angeles	4,807	0.45	10,703
14000US06037240401	Los Angeles	5,562	0.27	20,786
14000US06037541604	Compton	6,391	0.32	19,839
14000US06037535102	Unincorporated	5,055	0.23	22,150
14000US06037540901	Unincorporated	4,565	0.45	10,160
14000US06037600304	Unincorporated	3,412	0.17	19,825

Appendix 7: Indicator Data

Appendix 7.1: Demographics

Table A7.1.1: American Community Survey (ACS) Demographic Indicators*

	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
Total Population (B01003)	2017-2021	36,448	2,195	160,369	4,565	10,019,635	0	39,455,353	0
	2016-2020	37,259	2,298	161,014	4,874	10,040,682	0	39,346,023	0
	2015-2019	58,061	1,877	180,450	3,176	10,081,570	0	39,283,497	0
	2014-2018	57,757	1,884	178,719	2,976	10,098,052	0	39,148,760	0
	2013-2017	58,080	1,854	174,454	3,005	10,105,722	0	38,982,847	0
	2012-2016	57,518	1,882	169,881	2,981	10,057,155	0	38,654,206	0
	2011-2015	56,232	1,905	168,937	3,062	10,038,388	0	38,421,464	0
	2010-2014	55,008	1,854	164,136	3,143	9,974,203	0	38,066,920	0
	2009-2013	53,716	1,829	162,558	3,251	9,893,481	0	37,659,181	0
Percent Hispanic, all races (B03002)	2017-2021	71.8%	2.4%	75.9%	1.4%	48.7%	0.0%	39.5%	0.0%
	2016-2020	68.7%	2.4%	74.9%	1.5%	48.3%	0.0%	39.1%	0.0%
	2015-2019	74.1%	2.0%	74.7%	1.2%	48.5%	0.0%	39.0%	0.0%
	2014-2018	73.6%	2.1%	74.1%	1.2%	48.5%	0.0%	38.9%	0.0%
	2013-2017	72.9%	2.2%	73.2%	1.2%	48.4%	0.0%	38.8%	0.0%
	2012-2016	71.6%	2.4%	72.9%	1.3%	48.3%	0.0%	38.6%	0.0%
	2011-2015	71.8%	2.4%	73.1%	1.4%	48.2%	0.0%	38.4%	0.0%
	2010-2014	71.0%	2.4%	72.7%	1.3%	48.1%	0.0%	38.2%	0.0%
	2009-2013	71.3%	2.5%	71.8%	1.4%	47.9%	0.0%	37.9%	0.0%
Percent White, non-Hispanic (B03002)	2017-2021	1.0%	0.5%	1.4%	0.3%	25.5%	0.0%	35.8%	0.0%
	2016-2020	0.9%	0.5%	1.4%	0.3%	25.9%	0.0%	36.5%	0.0%
	2015-2019	0.8%	0.3%	1.6%	0.2%	26.2%	0.0%	37.2%	0.0%
	2014-2018	0.8%	0.4%	1.2%	0.2%	26.5%	0.0%	37.9%	0.0%
	2013-2017	0.8%	0.4%	1.2%	0.2%	26.7%	0.0%	38.4%	0.0%
	2012-2016	0.7%	0.4%	1.1%	0.2%	26.9%	0.0%	38.7%	0.0%
	2011-2015	0.7%	0.4%	0.9%	0.2%	27.2%	0.0%	39.2%	0.0%
	2010-2014	0.7%	0.3%	1.1%	0.2%	27.5%	0.0%	39.7%	0.0%
	2009-2013	11.8%	1.4%	12.1%	0.7%	32.5%	0.0%	39.7%	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% 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 all communities of color, non-Hispanic: Black, Asian, Pacific Islander, American Indian, other, and two or more races (B03002)	2017-2021	27.2%	3.5%	22.7%	1.4%	25.9%	0.1%	24.7%	0.1%
	2016-2020	30.4%	4.2%	23.7%	1.4%	25.8%	0.1%	24.1%	0.1%
	2015-2019	25.1%	1.8%	23.7%	1.0%	25.3%	0.1%	23.8%	0.0%
	2014-2018	25.5%	2.0%	24.5%	1.0%	25.2%	0.1%	23.6%	0.0%
	2013-2017	26.4%	2.0%	25.6%	1.0%	25.1%	0.1%	23.3%	0.0%
	2012-2016	27.6%	1.8%	25.9%	1.0%	24.9%	0.1%	23.1%	0.0%
	2011-2015	27.5%	1.8%	25.8%	1.0%	24.8%	0.1%	22.9%	0.0%
	2010-2014	28.3%	1.7%	26.4%	1.0%	24.7%	0.1%	22.7%	0.0%
	2009-2013	28.0%	1.8%	27.0%	1.0%	24.6%	0.1%	22.4%	0.0%
Percent other communities of color, non-Hispanic: Pacific Islander, American Indian, other, two or more races	2017-2021	1.7%	0.8%	1.5%	0.4%	3.7%	0.1%	4.6%	0.0%
	2016-2020	2.0%	0.9%	1.6%	0.5%	3.4%	0.1%	4.4%	0.0%
	2015-2019	1.7%	0.9%	1.2%	0.2%	3.0%	0.1%	4.0%	0.0%
	2014-2018	1.4%	0.8%	1.2%	0.2%	3.0%	0.0%	3.9%	0.0%
	2013-2017	1.1%	0.6%	1.2%	0.3%	2.9%	0.0%	3.9%	0.0%
	2012-2016	1.2%	0.7%	1.2%	0.2%	2.9%	0.0%	3.8%	0.0%
	2011-2015	0.9%	0.6%	1.1%	0.2%	2.9%	0.1%	3.7%	0.0%
	2010-2014	0.7%	0.5%	1.0%	0.3%	2.8%	0.1%	3.7%	0.0%
	2009-2013	0.8%	0.6%	1.0%	0.3%	2.7%	0.0%	3.6%	0.0%
Percent Black, non-Hispanic (B03002)	2017-2021	24.7%	3.5%	20.4%	1.4%	7.6%	0.0%	5.4%	0.0%
	2016-2020	27.1%	4.0%	21.4%	1.3%	7.8%	0.0%	5.4%	0.0%
	2015-2019	22.7%	1.5%	21.6%	0.9%	7.8%	0.0%	5.5%	0.0%
	2014-2018	23.6%	1.8%	22.6%	0.9%	7.9%	0.0%	5.5%	0.0%
	2013-2017	24.6%	1.9%	23.8%	1.0%	7.9%	0.0%	5.5%	0.0%
	2012-2016	25.8%	1.7%	24.2%	1.0%	8.0%	0.0%	5.6%	0.0%
	2011-2015	26.3%	1.7%	24.2%	1.0%	8.0%	0.0%	5.6%	0.0%
	2010-2014	27.4%	1.7%	24.9%	0.9%	8.0%	0.0%	5.7%	0.0%
	2009-2013	26.9%	1.7%	25.4%	1.0%	8.1%	0.0%	5.7%	0.0%
Percent Asian, non-Hispanic (B03002)	2017-2021	0.8%	0.6%	0.8%	0.3%	14.6%	0.0%	14.7%	0.0%
	2016-2020	1.3%	1.0%	0.7%	0.2%	14.6%	0.0%	14.6%	0.0%
	2015-2019	0.7%	0.6%	0.8%	0.2%	14.4%	0.0%	14.3%	0.0%
	2014-2018	0.5%	0.3%	0.7%	0.2%	14.4%	0.0%	14.1%	0.0%
	2013-2017	0.6%	0.4%	0.6%	0.2%	14.3%	0.0%	13.9%	0.0%
	2012-2016	0.6%	0.4%	0.6%	0.2%	14.1%	0.0%	13.7%	0.0%
	2011-2015	0.3%	0.3%	0.5%	0.1%	14.0%	0.0%	13.5%	0.0%
	2010-2014	0.3%	0.2%	0.5%	0.2%	13.8%	0.0%	13.3%	0.0%
	2009-2013	0.2%	0.2%	0.6%	0.3%	13.7%	0.0%	13.1%	0.0%

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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 Pacific Islander, non-Hispanic (B03002)	2017-2021	0.1%	0.2%	0.1%	0.1%	0.2%	0.0%	0.3%	0.0%
	2016-2020	0.1%	0.2%	0.1%	0.1%	0.2%	0.0%	0.3%	0.0%
	2015-2019	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2014-2018	0.2%	0.2%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2013-2017	0.1%	0.1%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2012-2016	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2011-2015	0.1%	0.1%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2009-2013	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
Percent American Indian, non-Hispanic (B03002)	2017-2021	0.2%	0.3%	0.1%	0.0%	0.2%	0.0%	0.3%	0.0%
	2016-2020	0.4%	0.4%	0.2%	0.1%	0.2%	0.0%	0.3%	0.0%
	2015-2019	0.8%	0.8%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2014-2018	0.6%	0.7%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2013-2017	0.5%	0.5%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2012-2016	0.5%	0.5%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2011-2015	0.4%	0.5%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.3%	03%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2009-2013	0.4%	0.3%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
Percent two or more races, non-Hispanic (B03002)	2017-2021	1.0%	0.6%	0.8%	0.2%	2.8%	0.0%	3.6%	0.0%
	2016-2020	1.0%	0.6%	0.8%	0.3%	2.6%	0.1%	3.4%	0.0%
	2015-2019	0.5%	0.2%	0.7%	0.2%	2.3%	0.1%	3.0%	0.0%
	2014-2018	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	3.0%	0.0%
	2013-2017	0.3%	0.2%	0.7%	0.2%	2.2%	0.0%	2.9%	0.0%
	2012-2016	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	2.9%	0.0%
	2011-2015	0.2%	0.1%	0.6%	0.2%	2.2%	0.0%	2.8%	0.0%
	2010-2014	0.1%	0.1%	0.6%	0.2%	2.2%	0.0%	2.7%	0.0%
	2009-2013	0.1%	0.1%	0.7%	0.2%	2.1%	0.0%	2.6%	0.0%
Percent other, non-Hispanic (B03002)	2017-2021	0.4%	0.5%	0.5%	0.4%	0.4%	0.0%	0.4%	0.0%
	2016-2020	0.5%	0.6	0.6%	0.4%	0.4%	0.0%	0.3%	0.0%
	2015-2019	0.4%	0.4%	0.3%	0.1%	0.3%	0.0%	0.3%	0.0%
	2014-2018	0.3%	0.3%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2013-2017	0.3%	0.3%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2012-2016	0.3%	0.4%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2011-2015	0.3%	0.4%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2010-2014	0.3%	0.4%	0.3%	0.1%	0.2%	0.0%	0.2%	0.0%
	2009-2013	0.4%	0.5%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%

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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 foreign born population (B05006)	2017-2021	29.4%	1.6%	37.2%	1.0%	33.5%	0.2%	26.5%	0.1%
	2016-2020	29.6%	1.6%	36.7%	1.0%	33.7%	0.1%	26.6%	0.1%
	2015-2019	33.0%	1.6%	38.2%	1.0%	34.0%	0.1%	26.8%	0.1%
	2014-2018	32.7%	1.8%	37.8%	0.9%	34.2%	0.1%	26.9%	0.1%
	2013-2017	32.4%	1.7%	37.4%	0.9%	34.4%	0.1%	27.0%	0.1%
	2012-2016	32.1%	1.7%	37.8%	0.9%	34.5%	0.1%	27.0%	0.1%
	2011-2015	31.6%	1.8%	38.5%	0.9%	34.7%	0.1%	27.0%	0.1%
	2010-2014	31.4%	1.8%	39.5%	1.0%	34.9%	0.1%	27.0%	0.1%
	2009-2013	31.5%	1.9%	40.1%	1.1%	35.1%	0.1%	27.0%	0.1%
Percent born in Asia (B05006)	2017-2021	0.6%	0.3%	0.7%	0.2%	12.0%	0.1%	10.6%	0.0%
	2016-2020	1.0%	0.8%	0.6%	0.1%	12.2%	0.1%	10.6%	0.0%
	2015-2019	0.7%	0.6%	0.6%	0.1%	12.2%	0.1%	10.6%	0.0%
	2014-2018	0.5%	0.3%	0.6%	0.1%	12.2%	0.1%	10.5%	0.0%
	2013-2017	0.5%	0.3%	0.5%	0.1%	12.1%	0.1%	10.4%	0.0%
	2012-2016	0.5%	0.3%	0.4%	0.1%	12.1%	0.1%	10.2%	0.0%
	2011-2015	0.2%	0.2%	0.4%	0.1%	12.0%	0.1%	10.1%	0.0%
	2010-2014	0.2%	0.2%	0.4%	0.1%	12.0%	0.1%	10.0%	0.0%
	2009-2013	0.2%	0.2%	0.5%	0.2%	11.9%	0.1%	9.8%	0.0%
Percent born in Africa (B05006)	2017-2021	0.3%	0.3%	0.4%	0.2%	0.6%	0.0%	0.5%	0.0%
	2016-2020	0.4%	0.3%	0.4%	0.2%	0.6%	0.0%	0.5%	0.0%
	2015-2019	0.2%	0.2%	0.4%	0.2%	0.6%	0.0%	0.5%	0.0%
	2014-2018	0.0%	0.1%	0.4%	0.2%	0.6%	0.0%	0.5%	0.0%
	2013-2017	0.1%	0.1%	0.3%	0.1%	0.6%	0.0%	0.5%	0.0%
	2012-2016	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.5%	0.0%
	2011-2015	0.0%	0.1%	0.2%	0.1%	0.6%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2009-2013	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
Percent born in Latin America (B05006)	2017-2021	28.5%	1.6%	35.9%	1.0%	18.7%	0.1%	13.1%	0.0%
	2016-2020	28.3%	1.5%	35.5%	1.0%	18.8%	0.1%	13.2%	0.1%
	2015-2019	32.1%	1.6%	37.0%	1.0%	19.2%	0.1%	13.5%	0.1%
	2014-2018	32.1%	1.8%	36.7%	0.9%	19.4%	0.1%	13.7%	0.1%
	2013-2017	31.6%	1.7%	36.5%	0.9%	19.6%	0.1%	13.8%	0.1%
	2012-2016	31.4%	1.7%	37.1%	0.9%	19.8%	0.1%	14.0%	0.0%
	2011-2015	31.3%	1.8%	37.7%	1.0%	20.0%	0.1%	14.2%	0.1%
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix 7.2: Economy

Table A7.2.1: American Community Survey (ACS) Economic Indicators*

	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
Median household income (B19001)	2017-2021	$36,632	N/A	$44,744	N/A	$76,367	$411	$84,097	$236
	2016-2020	$33,089	N/A	$40,447	N/A	$71,358	$336	$78,672	$270
	2015-2019	$33,171	N/A	$38,381	N/A	$68,044	$347	$75,235	$232
	2014-2018	$31,508	N/A	$35,188	N/A	$64,251	$247	$71,228	$217
	2013-2017	$30,274	N/A	$32,088	N/A	$61,015	$262	$67,169	$192
	2012-2016	$29,543	N/A	$29,880	N/A	$57,952	$331	$63,783	$188
	2011-2015	$28,080	N/A	$29,389	N/A	$56,196	$270	$61,818	$156
	2010-2014	$28,349	N/A	$29,000	N/A	$55,870	$244	$61,489	$154
	2009-2013	$27,634	N/A	$29,801	N/A	$55,909	$256	$61,094	$157
Percent of individuals living below poverty (B17001)	2017-2021	33.0%	3.7%	27.4%	1.7%	13.9%	0.2%	12.3%	0.1%
	2016-2020	35.3%	3.6%	28.7%	1.8%	14.2%	0.2%	12.6%	0.1%
	2015-2019	34.9%	2.7%	29.6%	1.5%	14.9%	0.1%	13.4%	0.1%
	2014-2018	37.4%	2.9%	31.8%	1.4%	16.0%	0.2%	14.3%	0.1%
	2013-2017	41.2%	3.0%	36.1%	1.5%	17.0%	0.2%	15.1%	0.1%
	2012-2016	43.4%	2.9%	38.4%	1.6%	17.8%	0.2%	15.8%	0.1%
	2011-2015	44.9%	2.9%	39.0%	1.5%	18.2%	0.1%	16.3%	0.1%
	2010-2014	42.9%	2.7%	38.6%	1.6%	18.4%	0.2%	16.4%	0.1%
	2009-2013	41.8%	2.9%	37.4%	1.6%	17.8%	0.2%	15.9%	0.1%
Percent high income ($125k +) (B19001)	2017-2021	7.6%	2.1%	9.8%	1.0%	28.6%	0.2%	32.6%	0.1%
	2016-2020	4.8%	1.4%	8.6%	1.0%	26.0%	0.2%	29.8%	0.1%
	2015-2019	4.6%	1.1%	7.3%	0.8%	24.5%	0.2%	28.0%	0.1%
	2014-2018	3.6%	1.0%	5.7%	0.7%	22.8%	0.2%	26.1%	0.1%
	2013-2017	2.6%	0.9%	3.9%	0.6%	21.0%	0.2%	23.9%	0.1%
	2012-2016	2.8%	0.9%	3.2%	0.5%	19.4%	0.1%	22.1%	0.1%
	2011-2015	3.1%	0.9%	2.9%	0.5%	18.3%	0.1%	20.9%	0.1%
	2010-2014	3.3%	1.0%	2.9%	0.5%	18.0%	0.1%	20.4%	0.1%
	2009-2013	3.1%	1.0%	3.1%	0.5%	17.6%	0.1%	19.9%	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 for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent with less than high school education (S1501)	2017-2021	43.7%	2.7%	44.6%	1.3%	20.0%	0.1%	15.8%	0.1%
	2016-2020	44.2%	1.7%	45.0%	1.2%	20.2%	0.1%	16.1%	0.1%
	2015-2019	46.4%	2.2%	45.4%	1.3%	20.9%	0.1%	16.7%	0.1%
	2014-2018	46.6%	2.3%	46.0%	1.3%	21.3%	0.1%	17.1%	0.1%
	2013-2017	47.2%	2.1%	47.0%	1.3%	21.8%	0.1%	17.5%	0.1%
	2012-2016	46.3%	2.1%	47.8%	1.3%	22.3%	0.1%	17.9%	0.1%
	2011-2015	47.2%	2.2%	48.5%	1.3%	22.7%	0.1%	18.2%	0.1%
	2010-2014	48.1%	2.3%	50.6%	1.3%	23.2%	0.1%	18.5%	0.1%
	2009-2013	50.0%	2.6%	50.3%	1.3%	23.4%	0.1%	18.8%	0.1%
Percent with bachelor's degree or higher (S1501)	2017-2021	7.2%	1.9%	8.9%	0.7%	34.0%	0.2%	35.3%	0.1%
	2016-2020	7.0%	2.2%	8.3%	0.7%	33.5%	0.2%	34.7%	0.1%
	2015-2019	6.2%	1.0%	7.7%	0.6%	32.5%	0.2%	33.9%	0.1%
	2014-2018	5.4%	0.9%	7.2%	0.6%	31.8%	0.2%	33.3%	0.1%
	2013-2017	5.9%	0.9%	6.9%	0.6%	31.2%	0.2%	32.6%	0.1%
	2012-2016	6.1%	1.0%	6.7%	0.5%	30.8%	0.1%	32.0%	0.1%
	2011-2015	4.8%	0.9%	6.6%	0.5%	30.3%	0.2%	31.4%	0.1%
	2010-2014	4.2%	0.9%	6.6%	0.5%	29.9%	0.2%	31.0%	0.1%
	2009-2013	4.0%	0.9%	6.7%	0.6%	29.7%	0.2%	30.7%	0.1%
Percent employed for the population 16 years and over (B23025)	2017-2021	50.2%	1.1%	55.8%	0.9%	60.3%	0.1%	59.3%	0.1%
	2016-2020	50.2%	1.1%	55.9%	0.9%	60.5%	0.1%	59.4%	0.1%
	2015-2019	52.4%	1.9%	56.3%	1.0%	60.7%	0.1%	59.4%	0.1%
	2014-2018	50.9%	2.1%	54.6%	1.0%	60.0%	0.1%	58.9%	0.1%
	2013-2017	48.9%	1.9%	52.7%	1.0%	59.3%	0.1%	58.2%	0.1%
	2012-2016	47.8%	1.9%	51.7%	1.0%	58.6%	0.1%	57.5%	0.1%
	2011-2015	45.7%	1.8%	51.4%	1.0%	58.0%	0.1%	56.9%	0.1%
	2010-2014	45.9%	1.8%	51.1%	1.0%	57.5%	0.1%	56.4%	0.1%
	2009-2013	45.6%	1.8%	51.2%	1.0%	57.5%	0.1%	56.4%	0.1%

Appendix 7.3: Energy

Table A7.3.1: American Community Survey (ACS) Energy Indicators*

	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 households heating home with electricity (B25040)	2017-2021	24.8%	3.4%	21.8%	1.5%	27.1%	0.2%	27.7%	0.1%
	2016-2020	21.8%	3.2%	19.8%	1.4%	26.7%	0.2%	27.1%	0.1%
	2015-2019	23.0%	2.3%	20.2%	1.2%	26.1%	0.2%	26.6%	0.1%
	2014-2018	21.8%	2.3%	19.7%	1.1%	25.9%	0.2%	26.4%	0.1%
	2013-2017	21.6%	2.4%	20.4%	1.1%	26.0%	0.1%	26.5%	0.1%
	2012-2016	21.3%	2.4%	22.8%	1.2%	25.9%	0.2%	26.4%	0.1%
	2011-2015	21.8%	2.2%	25.1%	1.3%	25.7%	0.1%	26.2%	0.1%
	2010-2014	18.9%	2.2%	24.4%	1.3%	25.2%	0.1%	25.8%	0.1%
	2009-2013	19.0%	2.3%	25.1%	1.3%	25.0%	0.1%	25.5%	0.1%
Percent of households heating home with other non-fossil fuels (B25040)	2017-2021	0.3%	0.4%	0.2%	0.2%	0.6%	0.0%	2.2%	0.0%
	2016-2020	0.3%	0.4%	0.3%	0.2%	0.5%	0.0%	2.2%	0.0%
	2015-2019	0.1%	0.2%	0.1%	0.1%	0.5%	0.0%	2.1%	0.0%
	2014-2018	0.2%	0.2%	0.6%	0.2%	2.0%	0.1%	2.1%	0.0%
	2013-2017	0.1%	0.2%	0.1%	0.1%	0.5%	0.0%	2.1%	0.0%
	2012-2016	0.1%	0.2%	0.2%	0.1%	0.4%	0.0%	2.0%	0.0%
	2011-2015	0.0%	0.2%	0.2%	0.1%	0.4%	0.0%	1.9%	0.0%
	2010-2014	0.0%	0.2%	0.2%	0.1%	0.3%	0.0%	1.9%	0.0%
	2009-2013	0.0%	0.2%	0.3%	0.2%	0.3%	0.0%	1.9%	0.0%
Percent of households heating home with utility gas (B25040)	2017-2021	59.6%	4.0%	62.7%	1.8%	64.7%	0.2%	63.0%	0.1%
	2016-2020	64.8%	3.9%	66.0%	1.7%	65.2%	0.2%	63.6%	0.1%
	2015-2019	61.2%	2.7%	65.3%	1.4%	65.7%	0.2%	64.1%	0.0%
	2014-2018	61.5%	2.6%	65.4%	1.4%	65.9%	0.2%	64.3%	0.1%
	2013-2017	58.1%	2.6%	64.6%	1.3%	66.0%	0.1%	64.4%	0.1%
	2012-2016	55.9%	2.7%	61.7%	1.4%	66.2%	0.2%	64.6%	0.1%
	2011-2015	54.9%	2.6%	59.4%	1.4%	66.6%	0.2%	65.0%	0.1%
	2010-2014	59.5%	2.6%	60.7%	1.4%	67.2%	0.1%	65.6%	0.1%
	2009-2013	61.3%	2.8%	61.3%	1.5%	67.7%	0.2%	66.0%	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.

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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 households heating home with other fossil fuels (B25040)	2017-2021	1.5%	0.9%	0.9%	0.3%	1.7%	0.0%	3.6%	0.0%
	2016-2020	0.3%	0.3%	0.7%	0.2%	1.6%	0.0%	3.6%	0.0%
	2015-2019	0.7%	0.5%	0.7%	0.2%	1.4%	0.1%	3.5%	0.0%
	2014-2018	0.9%	0.5%	0.7%	0.2%	1.4%	0.0%	3.5%	0.0%
	2013-2017	0.7%	0.5%	0.8%	0.2%	1.4%	0.0%	3.5%	0.0%
	2012-2016	0.9%	0.5%	0.8%	0.2%	1.3%	0.0%	3.4%	0.0%
	2011-2015	1.0%	0.6%	1.0%	0.3%	1.3%	0.0%	3.4%	0.0%
	2010-2014	1.0%	0.6%	0.9%	0.3%	1.3%	0.0%	3.4%	0.0%
	2009-2013	1.2%	0.6%	1.0%	0.3%	1.2%	0.0%	3.5%	0.0%
Percent of houses with no fuel used (B25040)	2017-2021	13.6%	2.5%	14.1%	1.2%	5.8%	0.1%	3.1%	0.0%
	2016-2020	12.4%	2.2%	13.0%	1.1%	5.8%	0.1%	3.2%	0.0%
	2015-2019	14.2%	2.0%	13.6%	1.0%	6.1%	0.1%	3.3%	0.0%
	2014-2018	15.1%	2.0%	14.0%	1.0%	6.2%	0.1%	3.4%	0.0%
	2013-2017	19.0%	2.2%	13.9%	0.9%	6.2%	0.1%	3.4%	0.0%
	2012-2016	21.4%	2.3%	14.4%	1.0%	6.1%	0.1%	3.3%	0.0%
	2011-2015	22.1%	2.3%	14.1%	1.0%	5.9%	0.1%	3.2%	0.0%
	2010-2014	20.5%	2.2%	13.6%	1.0%	5.8%	0.1%	3.0%	0.0%
	2009-2013	18.4%	2.3%	12.2%	1.0%	5.6%	0.1%	2.9%	0.0%

Table A7.3.2: Solar PV Systems per 1,000 Households*

Indicator	Dataset Year	Watts TCC Census Tracts	Control Tracts	Los Angeles County	California
Solar PV systems for all building types	2018	17.7	12.0	28.4	49.4

*Solar PV system data were sourced from The DeepSolar Project, a product of Stanford Engineering. For TCC census tracts and control tracts, a weighted average was applied, as based on the number of households within each census tract (using 2011-2015 ACS data).

Appendix 7.4: Environment

Table A7.4.1: Land-Cover Indicators*

Indicator	Dataset Year	Percent area for TCC Project Area	Square Miles
Impervious / buildings	2016	62.4%	1.6
Dry vegetation / barren	2016	14.0%	0.4
Green vegetation	2016	11.7%	0.3
Shadow	2016	11.9%	0.3
Unclassified	2016	<0.1%	<0.1
Water	2016	0%	0

*Land-cover indicators were derived from satellite imagery maintained by the National Agriculture Imagery Program.

Appendix 7.5: Health

Table A7.5.1: American Community Survey (ACS) Health Indicators*

	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 with health insurance coverage (B27001)	2017-2021	87.2%	1.1%	85.0%	1.0%	90.9%	0.1%	92.8%	0.1%
	2016-2020	87.9%	1.7%	85.1%	0.9%	90.8%	0.1%	92.8%	0.1%
	2015-2019	86.0%	1.2%	84.4%	0.9%	90.4%	0.1%	92.5%	0.1%
	2014-2018	84.1%	1.3%	82.6%	0.9%	89.2%	0.1%	91.5%	0.1%
	2013-2017	80.6%	1.5%	79.1%	1.0%	86.7%	0.1%	89.5%	0.1%
	2012-2016	77.5%	1.3%	75.2%	1.0%	84.1%	0.1%	87.4%	0.1%
	2011-2015	75.1%	1.3%	71.1%	1.0%	81.6%	0.1%	85.3%	0.1%
	2010-2014	71.5%	1.5%	67.1%	1.1%	79.1%	0.1%	83.3%	0.1%
	2009-2013	70.2%	1.8%	65.6%	1.1%	77.8%	0.2%	82.2%	0.1%
Percent with private health insurance coverage (B27002)	2017-2021	25.8%	2.3%	29.2%	1.1%	58.9%	0.3%	64.3%	0.2%
	2016-2020	25.6%	2.2%	29.5%	1.1%	58.8%	0.2%	64.3%	0.2%
	2015-2019	27.6%	2.0%	30.6%	1.2%	58.4%	0.3%	63.8%	0.2%
	2014-2018	25.4%	2.0%	29.5%	1.1%	57.9%	0.2%	63.4%	0.2%
	2013-2017	22.4%	1.8%	28.3%	1.1%	56.8%	0.2%	62.6%	0.2%
	2012-2016	22.3%	1.8%	26.9%	1.0%	55.8%	0.2%	61.8%	0.2%
	2011-2015	21.2%	1.9%	25.4%	1.0%	55.0%	0.2%	61.2%	0.2%
	2010-2014	20.2%	1.8%	23.6%	1.0%	54.1%	0.2%	60.8%	0.2%
	2009-2013	21.8%	1.9%	24.4%	1.0%	54.3%	0.2%	61.0%	0.2%
Percent with public health insurance coverage (B27003)	2017-2021	64.4%	3.2%	59.1%	1.8%	39.1%	0.2%	38.0%	0.1%
	2016-2020	65.9%	3.5%	58.9%	1.7%	39.0%	0.1%	38.0%	0.1%
	2015-2019	61.6%	2.2%	57.4%	1.3%	38.8%	0.2%	38.0%	0.1%
	2014-2018	61.9%	2.3%	56.9%	1.3%	38.0%	0.1%	37.2%	0.1%
	2013-2017	61.4%	2.1%	54.7%	1.3%	36.4%	0.1%	35.8%	0.1%
	2012-2016	58.7%	1.9%	52.3%	1.3%	34.7%	0.2%	34.3%	0.1%
	2011-2015	57.4%	1.9%	49.5%	1.2%	32.9%	0.1%	32.6%	0.1%
	2010-2014	54.7%	2.1%	46.8%	1.3%	31.1%	0.1%	30.8%	0.1%
	2009-2013	51.3%	2.3%	44.8%	1.3%	29.7%	0.1%	29.5%	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 A7.5.2: 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	2021	0	0	0	0	0	0	0	0
	2020	0	0	4	4	0	0	17.1	17.1
	2019	0	0	1	1	0	0	4.3	4.3
	2018	1	1	1	1	17.9	17.9	4.3	4.3
	2017	0	1	0	0	0	17.9	0	0
	2016	1	1	1	1	17.9	17.9	4.3	4.3
	2015	0	0	1	2	0	0	4.3	8.6
	2014	0	0	0	0	0	0	0	0
	2013	1	1	1	1	17.9	17.9	4.3	4.3
Bicycle Collision at Injury Level 2: Severe Injury	2021	3	4	11	11	53.8	71.7	47.2	47.2
	2020	5	6	11	15	89.7	107.6	47.2	64.3
	2019	3	4	17	20	53.8	71.7	72.9	85.7
	2018	2	2	12	14	35.9	35.9	51.4	60.0
	2017	1	2	8	8	17.9	35.9	34.3	34.3
	2016	2	2	9	12	35.9	35.9	38.6	51.4
	2015	0	1	6	7	0.0	17.9	25.7	30.0
	2014	2	3	4	5	35.9	53.8	17.1	21.4
	2013	1	2	5	6	17.9	35.9	21.4	25.7
Bicycle Collision at Injury Level 3: Visible Injury	2021	3	3	24	29	53.8	53.8	102.9	124.3
	2020	4	4	29	39	71.7	71.7	124.3	167.2
	2019	10	11	38	50	179.3	197.2	162.9	214.3
	2018	11	12	50	66	197.2	215.2	214.3	282.9
	2017	8	13	55	64	143.4	233.1	235.8	274.3
	2016	5	6	30	40	89.7	107.6	128.6	171.5
	2015	5	8	47	70	89.7	143.4	201.5	300.1
	2014	7	7	72	96	125.5	125.5	308.6	411.5
	2013	6	8	53	70	107.6	143.4	227.2	300.1

* 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 OpenStreetsMap (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
Bicycle Collision at Injury Level 4: Complaint of Pain	2021	2	2	12	16	35.9	35.9	51.4	68.6
	2020	7	9	49	56	125.5	161.4	210.0	240.1
	2019	9	15	56	74	161.4	269.0	240.1	317.2
	2018	6	6	51	66	107.6	107.6	218.6	282.9
	2017	6	8	50	74	107.6	143.4	214.3	317.2
	2016	12	14	63	73	215.2	251.0	270.1	312.9
	2015	5	9	58	76	89.7	161.4	248.6	325.8
	2014	6	6	57	81	107.6	107.6	244.3	347.2
	2013	8	11	65	85	143.4	197.2	278.6	364.4
Pedestrian Collision at Injury Level 1: Fatal	2021	2	3	5	7	35.9	53.8	21.4	30.0
	2020	5	7	13	16	89.7	125.5	55.7	68.6
	2019	2	4	13	18	35.9	71.7	55.7	77.2
	2018	4	4	19	20	71.7	71.7	81.4	85.7
	2017	2	2	14	15	35.9	35.9	60.0	64.3
	2016	2	2	6	9	35.9	35.9	25.7	38.6
	2015	0	0	8	10	0.0	0.0	34.3	42.9
	2014	2	3	8	11	35.9	53.8	34.3	47.2
	2013	1	1	7	11	17.9	17.9	30.0	47.2
Pedestrian Collision at Injury Level 2: Severe Injury	2021	10	16	61	76	179.3	286.9	261.5	325.8
	2020	8	10	37	48	143.4	179.3	158.6	205.8
	2019	7	9	46	56	125.5	161.4	197.2	240.1
	2018	8	11	48	60	143.4	197.2	205.8	257.2
	2017	8	10	27	35	143.4	179.3	115.7	150.0
	2016	3	8	23	27	53.8	143.4	98.6	115.7
	2015	3	7	16	20	53.8	125.5	68.6	85.7
	2014	4	6	25	31	71.7	107.6	107.2	132.9
	2013	5	5	24	31	89.7	89.7	102.9	132.9

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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 3: Visible Injury	2021	5	5	43	49	89.7	89.7	184.3	210.0
	2020	11	21	81	95	197.2	376.6	347.2	407.2
	2019	8	11	72	92	143.4	197.2	308.6	394.4
	2018	12	18	81	102	215.2	322.8	347.2	437.2
	2017	11	15	76	95	197.2	269.0	325.8	407.2
	2016	19	24	77	92	340.7	430.3	330.1	394.4
	2015	13	17	52	74	233.1	304.8	222.9	317.2
	2014	11	16	61	86	197.2	286.9	261.5	368.6
	2013	15	21	71	88	269.0	376.6	304.3	377.2
Pedestrian Collision at Injury Level 4: Complaint of Pain	2021	9	9	37	44	161.4	161.4	158.6	188.6
	2020	14	19	79	100	251.0	340.7	338.6	428.7
	2019	17	21	93	117	304.8	376.6	398.7	501.5
	2018	23	29	95	118	412.4	520.0	407.2	505.8
	2017	13	17	77	101	233.1	304.8	330.1	432.9
	2016	8	15	81	105	143.4	269.0	347.2	450.1
	2015	24	29	73	84	430.3	520.0	312.9	360.1
	2014	17	20	56	75	304.8	358.6	240.1	321.5
	2013	13	17	65	90	233.1	304.8	278.6	385.8
Combined Bicycle and Pedestrian Collision at Injury Level 1: Fatal	2021	0	0	0	0	0	0	0	0
	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
	2013	0	0	0	0	0	0	0	0

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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 2: Severe Injury	2021	0	0	0	0	0	0	0	0
	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
	2013	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian at Injury Level 3: Visible Injury	2021	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0
	2019	0	0	2	2	0	0	8.6	8.6
	2018	0	0	0	0	0	0	0	0
	2017	0	0	1	1	0	0	4.3	4.3
	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
	2013	0	0	2	2	0	0	8.6	8.6
Combined Bicycle and Pedestrian at Injury Level 4: Complaint of Pain	2021	0	0	0	0	0	0	0	0
	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	1	1	0	0	4.3	4.3
	2015	0	1	1	1	0	17.9	4.3	4.3
	2014	0	0	0	1	0	0	4.3	4.3
	2013	0	0	0	0	0	0	0	0

Appendix 7.6: Housing

Table A7.6.1: American Community Survey (ACS) Housing Indicators*

	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 renters (B25003)	2017-2021	70.7%	3.0%	73.2%	1.6%	54.0%	0.2%	44.5%	0.1%
	2016-2020	68.3%	2.8%	72.6%	1.7%	54.0%	0.2%	44.7%	0.1%
	2015-2019	65.1%	2.4%	71.5%	1.2%	54.2%	0.2%	45.2%	0.1%
	2014-2018	64.7%	2.4%	72.5%	1.2%	54.2%	0.2%	45.4%	0.1%
	2013-2017	65.3%	2.5%	72.8%	1.2%	54.1%	0.2%	45.5%	0.1%
	2012-2016	64.5%	2.4%	72.8%	1.2%	54.3%	0.2%	45.9%	0.2%
	2011-2015	66.5%	2.2%	72.6%	1.2%	54.0%	0.2%	45.7%	0.1%
	2010-2014	66.5%	2.3%	72.1%	1.3%	53.6%	0.1%	45.2%	0.1%
	2009-2013	67.3%	2.6%	70.6%	1.3%	53.1%	0.2%	44.7%	0.1%
Percent homeowners (B25003)	2017-2021	29.3%	3.2%	26.8%	1.2%	46.2%	0.3%	55.5%	0.3%
	2016-2020	31.7%	3.6%	27.4%	1.2%	46.0%	0.3%	55.3%	0.3%
	2015-2019	34.9%	2.2%	28.5%	1.2%	45.8%	0.3%	54.8%	0.3%
	2014-2018	35.3%	2.2%	27.5%	1.1%	45.8%	0.3%	54.6%	0.3%
	2013-2017	34.7%	2.4%	27.2%	1.1%	45.9%	0.3%	54.5%	0.3%
	2012-2016	35.5%	2.4%	27.2%	1.1%	45.7%	0.3%	54.1%	0.3%
	2011-2015	33.5%	2.1%	27.4%	1.1%	46.0%	0.3%	54.3%	0.3%
	2010-2014	33.5%	2.3%	27.9%	1.2%	46.4%	0.3%	54.8%	0.3%
	2009-2013	32.7%	2.3%	29.4%	1.2%	46.9%	0.3%	55.3%	0.3%
Percent of households paying ≥30% of income on rent (B25070)	2017-2021	59.1%	5.6%	62.1%	2.6%	54.4%	0.4%	51.5%	0.2%
	2016-2020	58.9%	5.4%	63.2%	2.4%	54.4%	0.4%	51.5%	0.2%
	2015-2019	65.4%	4.9%	64.6%	2.3%	54.9%	0.3%	52.1%	0.2%
	2014-2018	68.1%	4.6%	65.9%	2.2%	55.5%	0.3%	52.6%	0.2%
	2013-2017	69.0%	4.4%	68.1%	2.2%	56.1%	0.3%	53.1%	0.1%
	2012-2016	67.0%	4.3%	70.4%	2.1%	56.5%	0.3%	53.6%	0.1%
	2011-2015	66.6%	4.1%	69.9%	2.1%	56.9%	0.3%	54.0%	0.1%
	2010-2014	69.4%	4.4%	70.1%	2.2%	57.0%	0.3%	54.2%	0.1%
	2009-2013	67.9%	4.4%	68.6%	2.3%	56.4%	0.3%	54.1%	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 for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households paying ≥50% of income on rent (B25070))	2017-2021	34.0%	4.5%	35.6%	2.1%	28.9%	0.3%	26.3%	0.2%
	2016-2020	34.4%	4.4%	37.7%	2.0%	28.8%	0.3%	26.2%	0.2%
	2015-2019	37.4%	3.6%	38.6%	1.8%	29.0%	0.2%	26.6%	0.2%
	2014-2018	40.7%	3.5%	40.8%	1.7%	29.5%	0.2%	27.0%	0.2%
	2013-2017	40.3%	3.4%	43.4%	1.8%	30.1%	0.3%	27.4%	0.1%
	2012-2016	40.7%	3.3%	44.8%	1.7%	30.6%	0.2%	27.9%	0.1%
	2011-2015	41.5%	3.1%	44.7%	1.7%	30.9%	0.2%	28.2%	0.2%
	2010-2014	41.2%	3.3%	44.9%	1.8%	31.0%	0.2%	28.5%	0.1%
	2009-2013	41.1%	3.5%	43.5%	1.8%	30.7%	0.2%	28.3%	0.1%
Percent of households paying ≥30% of income on mortgage (B25091)	2017-2021	41.9%	8.1%	43.5%	3.7%	16.3%	0.2%	15.1%	0.15%
	2016-2020	49.7%	9.6%	42.0%	3.5%	16.7%	0.2%	15.4%	0.1%
	2015-2019	32.3%	4.7%	31.0%	2.8%	25.7%	0.2%	24.4%	0.0%
	2014-2018	33.2%	4.8%	31.5%	2.7%	26.0%	0.2%	24.7%	0.0%
	2013-2017	31.8%	4.7%	31.5%	2.6%	26.5%	0.2%	25.3%	0.0%
	2012-2016	29.6%	4.3%	32.5%	2.7%	27.5%	0.2%	26.2%	0.2%
	2011-2015	29.4%	4.4%	31.1%	2.6%	28.5%	0.2%	27.4%	0.2%
	2010-2014	32.8%	4.8%	31.5%	2.7%	29.4%	0.2%	28.5%	0.0%
	2009-2013	34.7%	4.9%	30.9%	2.8%	30.3%	0.2%	29.7%	0.1%
Percent of households paying ≥50% of income on mortgage (B25091)	2017-2021	7.2%	3.4%	8.3%	1.8%	5.7%	0.1%	5.1%	0.1%
	2016-2020	8.5%	3.5%	8.9%	1.9%	5.8%	0.2%	5.2%	0.1%
	2015-2019	8.2%	2.6%	9.0%	1.5%	5.9%	0.1%	5.3%	0.0%
	2014-2018	9.8%	2.9%	9.3%	1.6%	6.0%	0.1%	5.4%	0.1%
	2013-2017	10.3%	2.9%	9.0%	1.5%	6.3%	0.1%	5.5%	0.1%
	2012-2016	9.3%	2.4%	9.7%	1.6%	6.5%	0.1%	5.8%	0.1%
	2011-2015	8.5%	2.3%	9.8%	1.6%	7.0%	0.1%	6.2%	0.0%
	2010-2014	10.9%	2.9%	10.6%	1.7%	7.4%	0.1%	6.7%	0.0%
	2009-2013	12.4%	3.0%	11.8%	1.8%	7.9%	0.1%	7.2%	0.1%
Percent of households with more than one occupant per room (B25014)	2017-2021	19.2%	3.1%	22.2%	1.6%	11.1%	0.1%	8.2%	0.1%
	2016-2020	20.2%	3.0%	22.7%	1.6%	11.2%	0.1%	8.2%	0.1%
	2015-2019	21.4%	2.4%	20.7%	1.3%	11.3%	0.1%	8.2%	0.1%
	2014-2018	22.0%	2.5%	22.0%	1.3%	11.4%	0.1%	8.2%	0.1%
	2013-2017	22.2%	2.5%	23.0%	1.3%	11.7%	0.1%	8.2%	0.1%
	2012-2016	21.9%	2.5%	23.9%	1.3%	11.8%	0.1%	8.2%	0.1%
	2011-2015	23.0%	2.5%	25.3%	1.4%	11.8%	0.1%	8.2%	0.1%
	2010-2014	25.9%	2.7%	26.4%	1.4%	12.1%	0.1%	8.2%	0.1%
	2009-2013	28.2%	2.9%	26.7%	1.5%	12.1%	0.1%	8.2%	0.1%

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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 households with more than one occupant per room (renters) (B25014)	2017-2021	13.5%	2.8%	17.4%	1.4%	8.5%	0.1%	5.9%	0.1%
	2016-2020	12.9%	2.7%	17.5%	1.4%	8.6%	0.1%	5.9%	0.1%
	2015-2019	13.3%	2.0%	16.1%	1.1%	8.8%	0.1%	6.0%	0.1%
	2014-2018	14.2%	2.1%	17.2%	1.1%	8.9%	0.1%	6.0%	0.0%
	2013-2017	14.3%	2.0%	18.5%	1.2%	9.1%	0.1%	6.0%	0.1%
	2012-2016	13.9%	2.0%	19.1%	1.2%	9.2%	0.1%	6.1%	0.0%
	2011-2015	15.5%	2.0%	20.2%	1.2%	9.2%	0.1%	6.0%	0.1%
	2010-2014	18.1%	2.2%	21.0%	1.3%	9.3%	0.1%	6.0%	0.0%
	2009-2013	20.5%	2.5%	21.2%	1.4%	9.3%	0.1%	6.0%	0.0%
Percent of households with more than one occupant per room (homeowners) (B25014)	2017-2021	5.7%	1.6%	4.7%	0.7%	2.7%	0.1%	2.4%	0.3%
	2016-2020	7.3%	1.6%	5.1%	0.7%	2.6%	0.1%	2.3%	0.3%
	2015-2019	8.0%	1.4%	4.6%	0.6%	2.5%	0.1%	2.2%	0.0%
	2014-2018	7.8%	1.4%	4.7%	0.6%	2.6%	0.0%	2.2%	0.0%
	2013-2017	7.9%	1.4%	4.5%	0.6%	2.6%	0.0%	2.2%	0.0%
	2012-2016	8.1%	1.4%	4.8%	0.6%	2.6%	0.0%	2.1%	0.0%
	2011-2015	7.5%	1.4%	5.1%	0.6%	2.7%	0.1%	2.2%	0.0%
	2010-2014	7.7%	1.5%	5.4%	0.6%	2.8%	0.1%	2.2%	0.0%
	2009-2013	7.7%	1.5%	5.5%	0.6%	2.9%	0.1%	2.3%	0.0%
Percent of households in same house 1 year ago (renters) (B07013)	2017-2021	61.4%	3.4%	65.7%	2.0%	44.0%	0.3%	35.6%	0.2%
	2016-2020	58.4%	2.4%	64.0%	2.0%	44.2%	0.3%	35.6%	0.2%
	2015-2019	56.9%	2.9%	62.1%	1.5%	44.2%	0.3%	35.9%	0.2%
	2014-2018	56.0%	2.8%	61.2%	1.5%	43.9%	0.2%	35.8%	0.2%
	2013-2017	56.0%	3.1%	60.2%	1.5%	43.4%	0.3%	35.6%	0.2%
	2012-2016	53.8%	2.9%	59.2%	1.5%	42.9%	0.3%	35.4%	0.2%
	2011-2015	53.8%	2.9%	58.4%	1.4%	42.0%	0.3%	34.7%	0.2%
	2010-2014	52.4%	2.9%	57.3%	1.6%	41.0%	0.2%	33.7%	0.2%
	2009-2013	52.6%	3.0%	56.2%	1.5%	40.2%	0.2%	32.7%	0.2%
Percent of households in same house 1 year ago (homeowners) (B070103)	2017-2021	33.3%	4.1%	28.4%	1.6%	46.9%	0.3%	53.1%	0.2%
	2016-2020	36.2%	4.5%	29.9%	1.6%	46.5%	0.3%	52.7%	0.2%
	2015-2019	38.2%	2.7%	31.2%	1.5%	46.1%	0.3%	52.0%	0.3%
	2014-2018	37.8%	3.0%	30.4%	1.4%	45.9%	0.3%	51.6%	0.2%
	2013-2017	36.1%	3.2%	30.0%	1.5%	45.9%	0.3%	51.4%	0.2%
	2012-2016	36.5%	3.0%	30.4%	1.5%	45.6%	0.3%	51.0%	0.3%
	2011-2015	34.1%	2.7%	30.2%	1.6%	45.9%	0.3%	51.3%	0.3%
	2010-2014	33.8%	2.9%	30.5%	1.6%	46.3%	0.3%	51.7%	0.3%
	2009-2013	33.7%	3.0%	31.6%	1.6%	46.9%	0.3%	52.3%	0.3%

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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 households in same house 1 year ago (w/ income of $75k) (B07010)	2017-2021	3.4%	0.9%	3.8%	0.4%	15.8%	0.1%	18.3%	0.1%
	2016-2020	2.4%	0.8%	3.3%	0.4%	14.6%	0.1%	16.8%	0.1%
	2015-2019	1.6%	0.5%	2.7%	0.3%	13.8%	0.1%	16.0%	0.1%
	2014-2018	1.2%	0.4%	2.2%	0.3%	12.8%	0.1%	14.8%	0.1%
	2013-2017	0.9%	0.3%	1.8%	0.2%	11.9%	0.1%	13.8%	0.1%
	2012-2016	1.2%	0.4%	1.6%	0.2%	11.2%	0.1%	13.0%	0.1%
	2011-2015	1.2%	0.4%	1.4%	0.2%	10.7%	0.1%	12.4%	0.1%
	2010-2014	1.2%	0.4%	1.3%	0.2%	10.6%	N/A	12.3%	0.1%
	2009-2013	1.2%	0.4%	1.3%	0.2%	10.5%	N/A	12.1%	0.1%
Percent of households in same house 1 year ago (w/ income of <$75k) (B07010)	2017-2021	91.9%	7.8%	89.6%	3.4%	74.3%	0.2%	69.6%	0.1%
	2016-2020	92.7%	8.7%	90.2%	3.5%	75.3%	0.2%	70.6%	0.1%
	2015-2019	93.1%	1.5%	90.0%	1.0%	75.6%	0.2%	71.0%	0.1%
	2014-2018	92.3%	1.2%	88.8%	1.0%	76.2%	0.2%	71.8%	0.1%
	2013-2017	90.5%	1.3%	88.3%	1.0%	76.5%	0.2%	72.4%	0.1%
	2012-2016	88.4%	0.9%	87.6%	0.9%	76.6%	0.2%	72.8%	0.1%
	2011-2015	86.4%	1.1%	87.2%	0.9%	76.5%	0.2%	72.9%	0.1%
	2010-2014	84.6%	1.3%	86.8%	0.9%	76.1%	N/A	72.5%	0.1%
	2009-2013	84.7%	1.4%	86.7%	0.8%	75.9%	N/A	72.2%	0.1%
Percent of housing units for rent that are vacant (B25002 and B25004)	2017-2021	0.6%	0.6%	1.8%	0.4%	2.1%	0.1%	1.7%	0.0%
	2016-2020	0.5%	0.5%	1.9%	0.4%	1.9%	0.1%	1.6%	0.0%
	2015-2019	1.1%	0.6%	1.7%	0.4%	1.8%	0.1%	1.6%	0.0%
	2014-2018	1.1%	0.6%	1.9%	0.4%	1.7%	0.1%	1.5%	0.0%
	2013-2017	1.3%	0.6%	2.1%	0.4%	1.7%	0.1%	1.6%	0.0%
	2012-2016	1.8%	0.7%	2.5%	0.4%	1.8%	0.1%	1.7%	0.0%
	2011-2015	2.9%	1.0%	3.1%	0.5%	1.9%	0.1%	1.8%	0.0%
	2010-2014	3.4%	1.0%	3.6%	0.5%	2.2%	0.1%	2.0%	0.0%
	2009-2013	3.7%	1.1%	3.5%	0.6%	2.3%	0.1%	2.1%	0.1%
Percent of housing units for sale that are vacant (B25002 and B25004)	2017-2021	0.2%	0.3%	0.4%	0.2%	0.4%	0.0%	0.5%	0.0%
	2016-2020	0.0%	0.2%	0.4%	0.2%	0.4%	0.0%	0.5%	0.0%
	2015-2019	0.4%	0.4%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2014-2018	0.7%	0.5%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2013-2017	0.5%	0.4%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2012-2016	0.6%	0.4%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2011-2015	0.9%	0.5%	0.6%	0.2%	0.6%	0.0%	0.7%	0.0%
	2010-2014	1.2%	0.6%	0.9%	0.3%	0.6%	0.0%	0.8%	0.0%
	2009-2013	1.5%	0.7%	0.7%	0.3%	0.7%	0.0%	0.9%	0.0%

Appendix 7.7: Transportation

Table A7.7.1: American Community Survey (ACS) Transportation Indicators*

	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 households with a vehicle available (B08201)	2017-2021	N/A	N/A	N/A	N/A	91.4%	0.3%	93.1%	0.1%
	2016-2020	N/A	N/A	N/A	N/A	91.2%	0.3%	93.0%	0.1%
	2015-2019	N/A	N/A	N/A	N/A	91.2%	0.3%	92.9%	0.1%
	2014-2018	N/A	N/A	N/A	N/A	91.0%	0.3%	92.8%	0.1%
	2013-2017	N/A	N/A	N/A	N/A	90.8%	0.3%	92.6%	0.1%
	2012-2016	N/A	N/A	N/A	N/A	90.5%	0.2%	92.4%	0.1%
	2011-2015	N/A	N/A	N/A	N/A	90.3%	0.3%	92.3%	0.1%
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent of workers commuting to work alone by car (B08301)	2017-2021	70.4%	2.5%	70.0%	1.6%	70.0%	0.1%	70.1%	0.1%
	2016-2020	71.4%	3.0%	70.0%	1.6%	72.1%	0.2%	72.1%	0.1%
	2015-2019	70.9%	1.8%	69.5%	1.2%	74.0%	0.2%	73.7%	0.0%
	2014-2018	69.2%	2.0%	69.5%	1.3%	73.9%	0.2%	73.7%	0.0%
	2013-2017	67.5%	2.2%	66.8%	1.4%	73.7%	0.2%	73.6%	0.1%
	2012-2016	65.2%	2.0%	64.9%	1.3%	73.3%	0.1%	73.5%	0.0%
	2011-2015	63.5%	2.7%	63.7%	1.3%	73.0%	0.2%	73.4%	0.1%
	2010-2014	63.6%	2.7%	61.0%	1.4%	72.6%	0.1%	73.2%	0.1%
	2009-2013	64.3%	2.9%	61.4%	1.3%	72.4%	0.1%	73.2%	0.1%
Percent of workers commuting to work by carpool (B08301)	2017-2021	12.1%	2.5%	10.1%	0.9%	9.3%	0.1%	9.6%	0.1%
	2016-2020	11.2%	2.2%	10.1%	0.9%	9.5%	0.1%	10.0%	0.1%
	2015-2019	11.8%	1.7%	10.4%	0.9%	9.5%	0.1%	10.1%	0.1%
	2014-2018	12.8%	2.0%	10.5%	0.9%	9.5%	0.1%	10.3%	0.1%
	2013-2017	13.4%	2.0%	11.1%	0.9%	9.6%	0.1%	10.4%	0.1%
	2012-2016	15.2%	2.3%	12.3%	1.0%	9.8%	0.1%	10.6%	0.1%
	2011-2015	16.0%	2.3%	11.9%	1.0%	9.9%	0.1%	10.8%	0.1%
	2010-2014	16.3%	2.4%	12.8%	1.1%	10.3%	0.1%	11.1%	0.1%
	2009-2013	15.5%	2.3%	13.6%	1.2%	10.6%	0.1%	11.3%	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 continues on next page

	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 public transit (B08301)	2017-2021	10.3%	2.3%	11.2%	1.0%	4.9%	0.1%	4.1%	0.0%
	2016-2020	12.0%	2.6%	12.1%	1.0%	5.4%	0.1%	4.6%	0.0%
	2015-2019	12.0%	2.2%	13.2%	1.1%	5.8%	0.1%	5.1%	0.0%
	2014-2018	13.2%	2.4%	12.8%	0.9%	6.0%	0.1%	5.1%	0.0%
	2013-2017	13.5%	2.2%	14.6%	1.1%	6.3%	0.1%	5.2%	0.0%
	2012-2016	13.9%	2.1%	15.6%	1.1%	6.5%	0.1%	5.2%	0.0%
	2011-2015	13.7%	1.9%	17.0%	1.2%	6.8%	0.1%	5.2%	0.0%
	2010-2014	12.4%	1.9%	18.5%	1.2%	7.0%	0.1%	5.2%	0.0%
	2009-2013	12.1%	1.8%	17.8%	1.2%	7.1%	0.1%	5.2%	0.0%
Percent of workers commuting to work by foot (B08301)	2017-2021	0.6%	0.5%	1.3%	0.3%	2.4%	0.1%	2.4%	0.0%
	2016-2020	0.7%	0.5%	1.2%	0.3%	2.6%	0.1%	2.5%	0.0%
	2015-2019	0.8%	0.5%	1.4%	0.3%	2.7%	0.1%	2.6%	0.0%
	2014-2018	0.8%	0.4%	1.9%	0.4%	2.7%	0.1%	2.7%	0.0%
	2013-2017	1.2%	0.6%	2.4%	0.5%	2.7%	0.1%	2.7%	0.0%
	2012-2016	1.5%	0.6%	2.5%	0.4%	2.8%	0.1%	2.7%	0.0%
	2011-2015	1.8%	0.7%	2.9%	0.5%	2.8%	0.1%	2.7%	0.0%
	2010-2014	2.2%	0.8%	2.6%	0.5%	2.9%	0.1%	2.7%	0.0%
	2009-2013	1.9%	0.8%	2.2%	0.4%	2.9%	0.1%	2.7%	0.0%
Percent of workers commuting to work by bike (B08301)	2017-2021	0.7%	0.6%	0.6%	0.2%	0.6%	0.0%	0.8%	0.0%
	2016-2020	0.5%	0.5%	0.5%	0.2%	0.7%	0.0%	0.8%	0.0%
	2015-2019	0.6%	0.4%	0.7%	0.2%	0.8%	0.0%	1.0%	0.0%
	2014-2018	0.3%	0.2%	0.8%	0.2%	0.8%	0.0%	1.0%	0.0%
	2013-2017	0.4%	0.3%	1.0%	0.3%	0.9%	0.0%	1.1%	0.0%
	2012-2016	0.4%	0.3%	0.9%	0.3%	0.9%	0.0%	1.1%	0.0%
	2011-2015	0.4%	0.3%	1.0%	0.3%	0.9%	0.0%	1.1%	0.0%
	2010-2014	0.2%	0.2%	1.0%	0.3%	0.9%	0.0%	1.1%	0.0%
	2009-2013	0.2%	0.3%	0.8%	0.3%	0.9%	0.0%	1.1%	0.0%
Percent of workers commuting to work by other modes: taxicab, motorcycle, and other (B08301)	2017-2021	1.8%	1.3%	3.0%	0.5%	1.8%	0.1%	1.6%	0.0%
	2016-2020	1.6%	1.1%	2.4%	0.5%	1.7%	0.1%	1.6%	0.0%
	2015-2019	1.1%	0.7%	1.8%	0.4%	1.6%	0.0%	1.6%	0.0%
	2014-2018	0.6%	0.4%	1.5%	0.3%	1.6%	0.0%	1.6%	0.0%
	2013-2017	0.7%	0.4%	0.9%	0.3%	1.5%	0.0%	1.5%	0.0%
	2012-2016	0.6%	0.4%	0.9%	0.3%	1.4%	0.0%	1.4%	0.0%
	2011-2015	0.7%	0.4%	0.9%	0.3%	1.4%	0.0%	1.4%	0.0%
	2010-2014	1.5%	0.7%	1.2%	0.3%	1.3%	0.0%	1.3%	0.0%
	2009-2013	1.5%	0.7%	1.1%	0.3%	1.2%	0.0%	1.3%	0.0%

Table A7.7.2: Plug-in Electric Vehicle (PEV) Registrations*

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
Battery electric vehicle (BEV)	2021	34	173	111,752	9.3	10.8	111.5
	2020	29	134	83,209	7.8	8.3	82.9
	2019	15	96	67,059	2.6	5.3	67.0
	2018	13	65	49,566	2.3	3.6	49.1
	2017	11	63	37,977	1.9	3.6	37.6
	2016	8	45	29,370	1.4	2.6	29.2
	2015	14	41	20,516	2.5	2.4	20.4
Plug-in hybrid electric vehicle (PHEV)	2021	34	190	67,304	9.3	11.8	67.2
	2020	44	159	61,854	11.8	9.9	61.6
	2019	40	145	58,563	6.9	8.0	58.1
	2018	22	110	49,027	3.8	6.2	48.6
	2017	7	46	25,777	1.2	2.6	25.5
	2016	6	37	26,648	1.0	2.2	26.5
	2015	10	27	21,547	1.8	1.6	21.5
Fuel cell vehicle (FEV)	2021	2	13	3,105	0.5	0.8	3.1
	2020	0	6	2,339	0	0.4	2.3
	2019	0	3	2,165	0	0.2	2.1
	2018	0	2	1,592	0	0.1	1.6
	2017	0	0	174	0	0	0.2
	2016	0	1	344	0	0.1	0.3
	2015	0	0	57	0	0	0.1
Total EV registrations	2021	70	376	182,161	19.2	23.4	181.8
	2020	73	299	147,402	19.6	18.6	146.8
	2019	55	244	128,237	9.5	13.5	127.2
	2018	35	177	100,185	6.1	9.9	99.2
	2017	18	109	63,928	3.1	6.2	63.3
	2016	14	83	56,362	2.4	4.9	56.0
	2015	24	68	42,120	4.3	4.0	42.0

*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 A7.7.3: Publicly Available Charging Infrastructure*

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	2022	4	24	2,980	1.1	1.5	3.0
	2021	6	23	3,073	1.7	1.4	3.1
	2020	5	21	1,680	1.3	1.3	1.7
	2019	2	9	659	0.3	0.5	0.7
	2018	3	7	857	0.5	0.4	0.9
	2017	2	2	745	0.3	0.1	0.7
	2016	1	2	644	0.2	0.1	0.6
	2015	0	2	547	0	<0.1	0.5
DC Fast-Charging Stations	2022	0	1	285	0	<0.1	0.3
	2021	1	1	250	0.3	<0.1	0.3
	2020	0	1	201	0	<0.1	0.2
	2019	0	1	125	0	<0.1	0.1
	2018	0	1	102	0	0.1	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

*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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