

WATTS RISING

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



Acknowledgments

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Disclaimer

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For More Information

www.innovation.luskin.ucla.edu

Cover image: TreePeople staff and volunteers planting trees along Croesus Ave in Watts in September 2021 (Photo courtesy of the Watts Rising Collaborative 2021).

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EXECUTIVE SUMMARY

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM

(TCC) is an innovative, new investment in community-scale climate action, with potentially broad implications. Launched in 2017 by the California State Legislature, TCC funds the implementation of neighborhood-level transformative plans that include multiple, coordinated projects to reduce greenhouse gas 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.

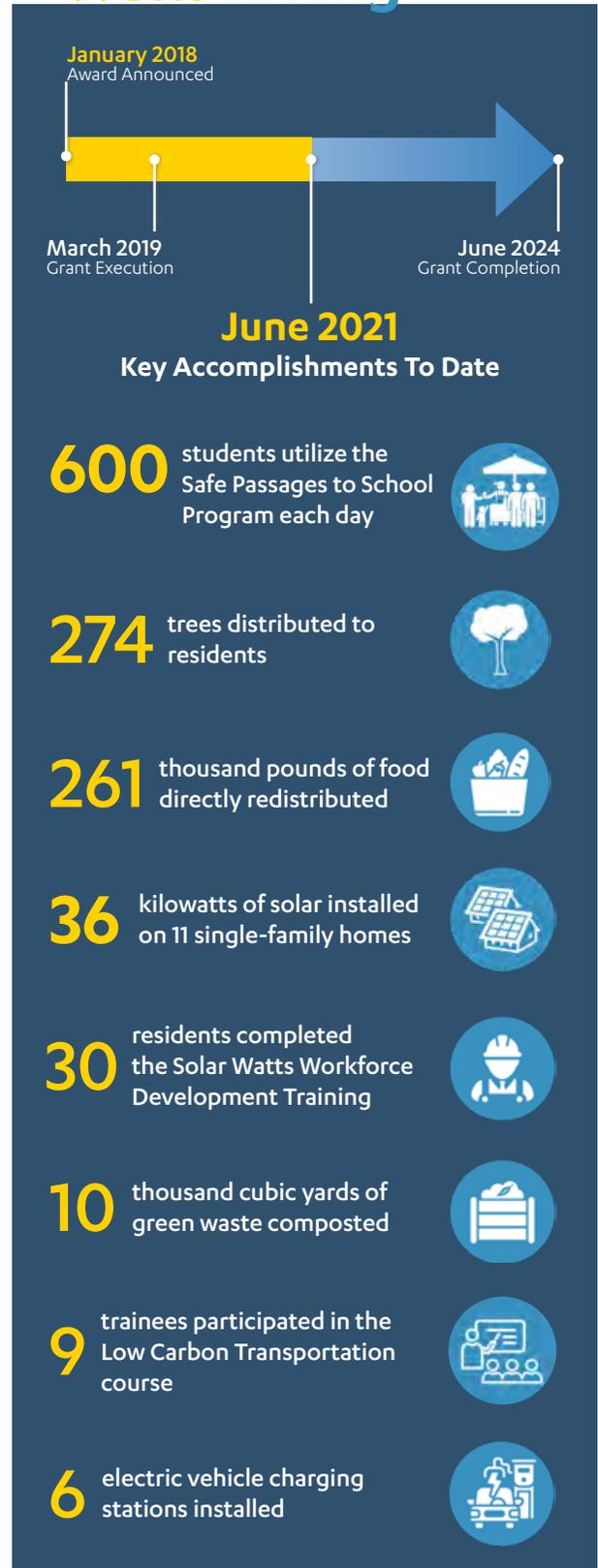
The California Strategic Growth Council (SGC) serves as the lead administrator of TCC. During the first round of the program, and through a competitive process, SGC awarded multimillion dollar grants to the City of Fresno (\$66.5 million), the Watts Neighborhood of Los Angeles (\$33.25 million), and the City of Ontario (\$33.25 million). During the second round, SGC awarded the City of Sacramento (\$23 million) and Pacoima, the Northeast San Fernando Valley neighborhood of Los Angeles, (\$23 million). And during the third and most recent round, SGC awarded the City of Oakland (\$28.2 million), the City of Riverside (\$9.1 million), and the City of Stockton (\$10.8 million).

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

This progress report is the third 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.¹ This specific report documents progress through the end of FY 2020-21, which overlaps with about 27 months of grant implementation (April 2019 through June 2021). The majority of implementation has occurred during the COVID-19 pandemic, so project partners' responses to the pandemic are also highlighted throughout the report.

¹ For annual reports that LCI has produced for other TCC sites, visit: <https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/>

Watts Rising





Watts Rising Collaborative Community Event. Photo credit: Economic and Workforce Development Department LA

Watts Today

Watts is a vibrant neighborhood of about 40,000 residents located 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 freeways, near rail and truck routes for the Port of Los Angeles, and under the flight path for Los Angeles International Airport. In addition, Watts residents face limited access to fresh food and affordable housing. 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 non-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 of Los Angeles through a suite of projects and plans that will reduce GHGs while also providing local environmental, health, and economic co-benefits. In early 2018, SGC awarded \$33.25 million to the Watts Rising Collaborative as part of TCC. Watts Rising also leverages \$168.9 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, multi-benefit, and place-based climate change mitigation program that specifically targets the needs of low-income households.

Projects

Watts Rising includes a total of 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, which sequester carbon and provide shading benefits, as well as provide bicycle safety and education courses, which 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. These two 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 VMT.



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 mobility 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 VMT, 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 mobility 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 (CEP), workforce development plan (WDP), and displacement avoidance plan (DAP).

Respectively, these three plans are designed to ensure that TCC investments reflect the community's vision and goals, bring economic opportunities to 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** a 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:
 - The construction of 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 3 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 3 workshops on each of the following topics:
 - Contracting opportunities for small businesses
 - Small business assistance and access to capital services

Anticipated Benefits

Watts Rising is slated to bring a number of benefits to residents of the TCC project area. The infographic below highlights a nonexhaustive list of these benefits, grouped by indicator type. This list includes outputs, outcomes, and impacts from TCC-funded projects and does not include those from leveraged projects. Project outputs refer to the tangible goods and services that

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



5.2 miles of bike lanes



10 new buses powered by electricity



154 kW of solar power on affordable single-family and small multifamily



1.15 miles of a cultural trail and sidewalk improvements



324 tons of edible food rescued and donated



40 residents trained in solar photovoltaic (PV) 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.

Project Outcomes and Impacts²



61,732 metric tons (MT) of avoided GHG emissions (in MTCO_{2e})



\$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 PV and street tree beneficiaries



153 direct jobs
70 indirect jobs, and
113 induced jobs supported by TCC funding³

²See Appendix 2 for a summary of methods for how these benefits were estimated. Benefits are reported as totals over the operational period of the projects, also referred to as project lifetimes. Totals reported here for projects implemented in 2019 reflect revisions completed after the release of the California Climate Investments 2020 Annual Report. These revisions will be reflected in the next reporting cycle for California Climate Investments.

³All jobs are reported as full-time equivalents (FTEs).

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 in 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

Much has happened following SGC’s announcement of Watts’s TCC award in 2018. From that announcement through the close of the 2020-’21 fiscal year (June 30, 2021), a period of two 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 SGC. In light of the challenges of the pandemic, SGC has extended the grant implementation period for Round 1 grantees (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. These include:

- » 20 organizational partners that will implement Watts Rising projects (a full list can be found in Table 3)
- » Data partners (Charles R. Drew University of Medicine and Science and the Watts Community Studio)
- » An anti-displacement partner (Watts Century Latino Organization)
- » A city partner (Mayor’s Office of Economic Opportunity)
- » Other local organizations, such as Watts Neighborhood Council, Watts Gang Taskforce, Watts Clean Air and Energy Committee, Project Fatherhood, and more

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 Leadership Council and Working Groups.

In 2020, the Watts Rising Leadership Council was changed to the Watts Rising Community Advisory Group to better reflect the role to advise and guide the implementation of the projects, which is not vote-based, as council terminology denotes. The change was also made to avoid potentially conflicting with the standing and prominence of the Watts Neighborhood Council, an elected local governance body established by City of Los Angeles. charter to facilitate civic engagement and community improvement.

The Watts Rising Leadership Council is the advisory body that provides oversight and facilitates coordination among the myriad of Watts Rising partners. In addition to the groups listed above, the Leadership Council includes Watts residents, businesses, and other community-based organizations. Starting with the first kickoff meeting in May 2019, the Leadership Council holds monthly meetings open to the public.

The Working Groups are organized around the following similar project themes: (1) community engagement data, (2) displacement avoidance, and (3) city oversight. Members focus on implementing one or more projects in those four thematic areas (see **Appendix 3** for more detail on this structure).

Grant Implementation (April 2019 – June 2021)

Continuing 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 CEP 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 as hired staff. These events had almost 800 attendees combined. In addition, the Watts Yardners Program, Greening Housing project, Greening Watts, and MudTown Farms projects conducted outreach to 790 Watts residents.

In 2021, the Watts Rising Collaborative created a Street Team, comprised of Watts residents, who are 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.

Completing Two Leveraged Projects

In September 2018, the Century Boulevard Complete Streets project, led by the City of Los Angeles Bureau of Street Services, was completed. This leveraged project maximized over \$10 million in funding to make bicyclist and pedestrian improvements. Along a half a mile stretch of Century Boulevard in Watts, street lights, signals, sidewalks, and parkways were installed and 155 trees were planted.

In 2020, the 103rd Street Trees project, led by the City of Los Angeles Bureau of Street Services, was completed, leveraging over \$800,00 in funding. This project installed pedestrian lighting and ADA ramps, replaced curbs, gutters, and sidewalks, and planted 50 trees on a 0.4-mile stretch of 103rd Street.

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

Adapted to the Challenges of the COVID-19 Pandemic

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. Notable implementation pivots include:

- » MudTown Farms project ensured its food distribution followed COVID-19 public health safety guidelines by pre-bagging produce and distributing it through a drive-through process.
- » Watts Healing Tech Garden distributed fresh produce to alleviate food insecurity at the start of the pandemic through summer 2020.
- » WalkBike Watts Safe Passages project lead We Care Outreach supported the East Side Rider's distribution of food to the community by providing guidance to those coming to collect food to follow COVID-19 public health safety guidelines.
- » The Urban Peace Institute, part of the WalkBike Watts project, moved its community engagement meetings online and used them as a platform to disseminate critical public health information about the pandemic and provide updates on resources to the community.
- » MudTown Farms adapted outreach by using more social media, as well as by distributing other organizations' flyers during their COVID-safe food distribution events. The rooftop solar and energy efficiency projects also focused outreach on mailers and online advertisements.
- » Weigand Elementary Urban Trees/Rain Gardens conducted two lessons for Jordan High School students remote.
- » Greening Watts distributed trees by driving through the community in order to be more socially distant than distributing at an event.
- » The Mayor's Office of Economic Opportunity hosted more than 10 online small business and tenant events to connect residents to COVID-19 relief programs.

For more detail how Watts Rising responded to COVID-19, see individual project and plan profiles in the following chapters, as well as **"Stories From the Community."**

Key Accomplishments Through June 2021

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; and
- » Establishment of the Watts Leadership Council, a collaborative stakeholder structure for coordinating grant governance.

Climate Action

- » More than **300** different types of energy efficiency measures installed in single-family homes and **33** energy efficiency retrofit projects completed
- » A combined **35.91** kW of solar on **11** single-family homes installed
- » **6** level 2 electric vehicle chargers and **3** level 3 chargers installed
- » Construction began on the affordable housing project during the summer of 2021
- » MudTown Farms directly redistributed **251,551** pounds of food directly to residents
- » The Watts Healing Tech Garden distributed **10,667** pounds of food
- » **4** residents completed one round of the growers certificate program
- » **5** local youth trained and hired by North East Trees

Community Engagement

- » Watts Healing Tech Garden held **2** community gardening days and **1** harvest festival.
- » Weigand Elementary Urban Trees/Rain Gardens held **17** community outreach and engagement events in English and in Spanish.
- » Freedom Tree Park held **3** community events for Jordan Downs residents, park users, and Watts families in English and in Spanish to inform the development and design of the park.
- » The Affordable Housing and Sustainable Communities project held **7** Bicycle Education and Safety Training class.



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.⁴ 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.

⁴ AB 2722, Transformative Climate Communities. 2016. Web. February 2017. Retrieved from: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2722

As a place-based program, all grant applicants must identify a project area that will be the focus of the TCC proposal. Proposals must be borne out of a robust community engagement process that brings together residents and stakeholders 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.

Last, the program emphasizes cross-sector partnerships by requiring applicants to form a coalition of organizations that would carry the implementation of the community vision. To assure that the implementation will deliver the community'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 three rounds of awards. During Round 1, which was tied to fiscal year (FY) 2016-2017 funding, a total of \$133 million was allocated to implementation grants and \$1.6 million was allocated to planning grants. For Round 2, which was tied to FY 2018-2019 funding, a total of \$46 million was allocated to implementation grants, and a total of \$800,000 was allocated to planning grants. Last, for Round 3, which was tied to FY 2019-2020 funding, a total of \$48 million was allocated to implementation grants and a total of \$600,000 was allocated to planning grants. Table 1 provides an overview of the implementation and planning grants that have been distributed through FY 2019-2020.

Table 1: Overview of TCC Implementation and Planning Grants Through FY 2019-2021

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



Central Avenue in October 2019, which will receive a number of pedestrian improvements as a result of a leveraged project.

Photo credit: UCLA Luskin Center for Innovation

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.⁵

Following 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,

⁵The 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

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 final list of indicators adopted by SGC for Fresno, Ontario, and Watts.⁶ Indicator tracking responsibilities will be partially split among the LCI evaluation team and the grantees. In general, all output-related indicators will be tracked by the grantees, while most outcome and impact related indicators will be tracked by the LCI evaluation team.

Quantitative Methods for Evaluating TCC

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

For the before-and-after comparison, the LCI evaluation team will measure changes in indicators before and after TCC kickoff, which occurred in 2019 for Round 1 grants. Whenever possible, the LCI evaluation team will construct a five-year pre-kickoff trend line (2014-2018 for Round 1) and a five-year post-kickoff trend line (2019-2023 for 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).⁷

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

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

- » **TCC project area:** The neighborhood boundary identified by the TCC grantees in which all TCC investments will be located. In some cases, a cluster of census tracts that have more than 10% area overlap with the TCC project boundary area will be used for indicator tracking purposes instead of the actual project boundary. This is the case for all indicators that rely on American Community Survey (ACS) data, which cannot reliably be apportioned to fit the actual TCC project boundary area. See **Appendix 4** for a list of census tracts that will be used as a proxy for Watts’s 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** 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 cases these cases, the LCI evaluation team is providing estimates for TCC sites only. Developing estimates for other geographic scales requires making a number of site-specific assumptions that are outside the LCI evaluation team’s scope of work.

⁶Ibid.
⁷See 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** for the latest indicator data the LCI has collected.

Qualitative Methods for Evaluating TCC

Many of the potential benefits of TCC will likely be missed by the quantitative methods previously described. For example, improvements in wellbeing, community capacity to tackle new challenges, and communication across diverse stakeholder groups are difficult to describe in numerical terms. Thus, in order to capture some of the nuanced effects that TCC may have at the individual and community level, the LCI evaluation team will be analyzing qualitative data collected from surveys, interviews, and focus groups.⁸

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, entitled *Stories from the Community*. The individuals profiled in this chapter are recruited directly by TCC project partners and are interviewed by the LCI evaluation team. From these interviews, the LCI evaluation team develops two case studies per year about how the effects of TCC are being felt on the ground.

Evaluation Activities in Watts Through June 2021

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

By the end of 2019, the LCI evaluation team completed baseline data collection for quantitative indicators. Findings from the baseline data collection process are narratively described in the final chapter of 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 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 the community engagement and workforce development surveys in all three Round 1 sites. The LCI evaluation team substantially revised the 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.

⁸ 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).

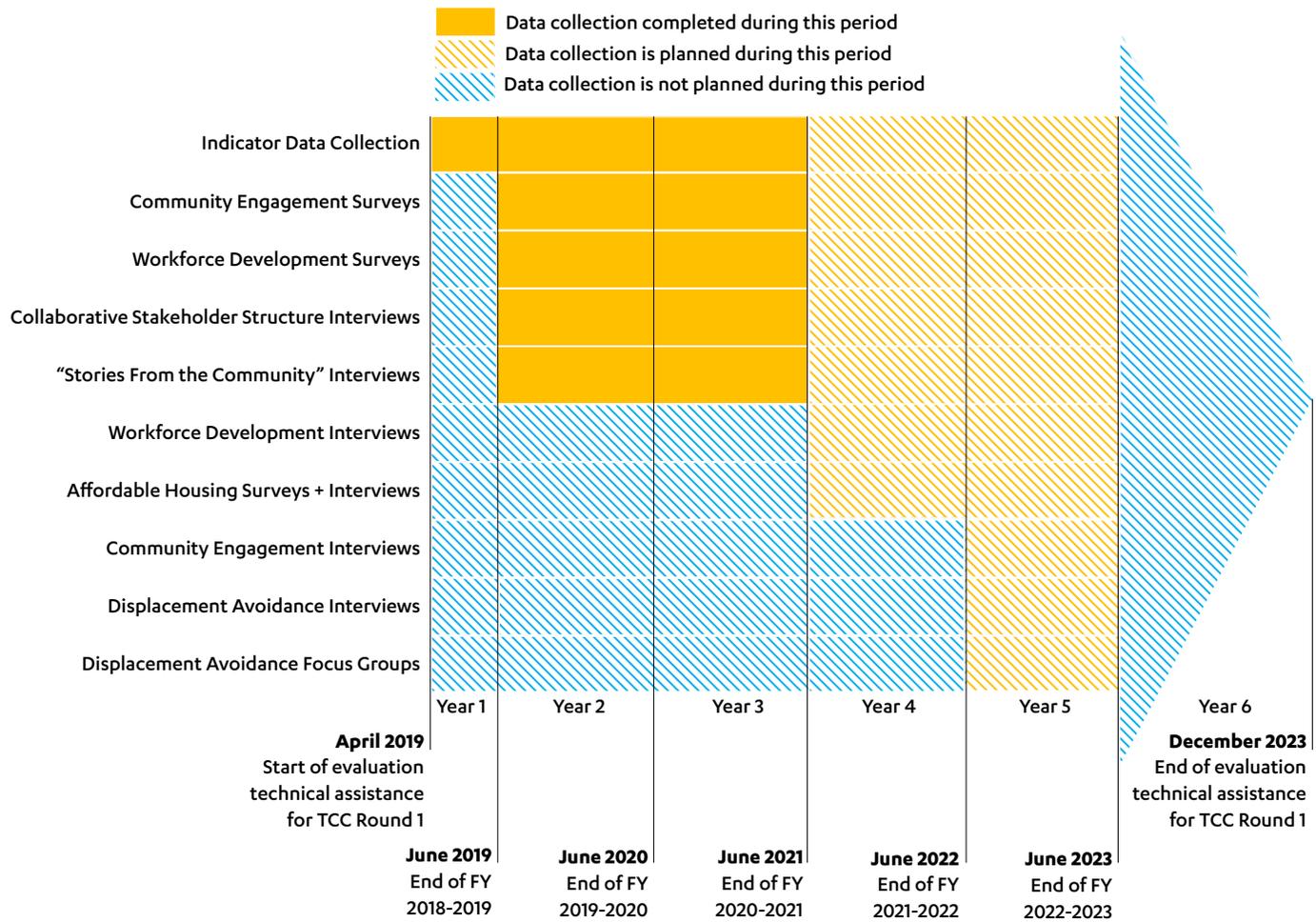
In Watts, community engagement surveys were disseminated at an event held at the Watts Labor Community Action Committee in February 2020. Workforce development surveys were mailed to project leads for dissemination at the beginning and end of training programs. In response to the COVID-19 pandemic, the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

In addition to surveys, the LCI evaluation team has con-

ducted 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 still 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.⁴ The area now known as Watts was once the Tajáuta village of the Kumivit, or the Tongva-Gabrielino Tribe. Tongva communities lived in the region for at least 7,000 years before Spanish settlers arrived in 1769.⁵ For native people, land dispossession caused displacement, loss of livelihood, forced labor under California farmers, and mass incarceration on vagrancy charges.⁶

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. Though predominantly white, Watts also attracted Mexican and Mexican-American railroad workers, or *traqueros*, building the Southern Pacific rail line.⁷ 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.^{8,9}

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. By 1940, Watts was a predominantly working-class African American community.¹⁰ 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.¹¹

⁴ South L.A. (n.d.). L.A. Times. Retrieved May 3, 2022, from <http://maps.latimes.com/neighborhoods/region/south-la/>

⁵ Hernández, K. L. (2017). *City of Inmates*. UNC Press.

⁶ Ibid.

⁷ 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/>

⁸ Ray, M. B. (1985). *The city of Watts, California, 1907 to 1926*. Los Angeles, Calif. : Rising Pub. <http://archive.org/details/cityofwattsca1f0000raym>

⁹ TIMES, S. C. O. T. (1910, September 11). WHAT PUBLICITY DID FOR WATTS. *Los Angeles Times* (1886-1922), V19.

¹⁰ 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>

¹¹ 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. 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.⁴ 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.⁵ Housing costs, displacement by gentrification, and homelessness in the area remain major

concerns. 70% of Watts residents are renters, indicating a major risk of displacement.⁶ 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, with most areas scoring above the 95th percentile in CalEnviroScreen 4.0.⁷ Watts has temperatures 4.7 degrees Fahrenheit more than the Los Angeles average, and in 15 years, there is a projected 44 extreme heat days per year.⁸ In terms of transportation infrastructure, Watts residents experience a disproportionately high percentage of pedestrian crashes.¹⁰ 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.¹¹

⁴ 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>

⁵ Watts Rising—About Watts Rising. (n.d.). Retrieved March 16, 2022, from <https://www.wattsrising.org/home/about-watts-rising>

⁶ 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.

⁷ CalEnviroScreen 4.0. OEHHA. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

⁸ UCLA researchers aim to pinpoint sources of heat injustice. (2021, October 15). UCLA Luskin Center for Innovation. <https://innovation.luskin.ucla.edu/2021/10/15/turner-and-colleagues-receive-grant-to-pinpoint-sources-of-heat-injustice/>

⁹ California Healthy Places Index: Extreme Heat Edition. (n.d.). Retrieved May 3, 2022, from <https://heat.healthylivesindex.org/>

¹⁰ Hayes, R. (2019, December 10). Collisions involving pedestrians increasing in LA - map shows where—ABC7 Los Angeles. <https://abc7.com/pedestrian-deaths-los-angeles-killed-map-of-pedestrians-crashes-la-fatalities/5745327/>

¹¹ Highway to Health. (n.d.). Measure of America. Retrieved May 3, 2022, from https://measureofamerica.carto.com/viz/33128a2f-6252-438c-9407-65b37d4f7419/embed_map



Young men near Simon Rodia’s Watts Towers, 1966. Photo credit: Bill Ray/Life Pictures/Shutterstock



Watts Rising participants. Photo credit: California Climate Investments

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 led the Watts Community Studio, which 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 pri-

orities. These later helped to inform project design and selection for Watts Rising. Charles R. Drew University of Medicine and Science 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 GHGs 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 \$33.25 million. Watts Rising will also leverage \$168

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 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.

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 2019-2020. This baseline and initial evaluation period overlaps with about one year of post-award consultation and 16 months of program implementation.

The next three sections of this report provide summary

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*	\$1,850,915	\$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	Green Commuter;* GRID Alternatives 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;* Food Forward	\$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	\$519,120
Rooftop Solar and Energy Efficiency Projects	Solar Watts	GRID Alternatives LA*	\$1,315,152	\$81,338
	Energy Efficiency	Habitat for Humanity*	\$1,802,955	\$148,374
Urban Community Forestry Projects	Watts Healing 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*	\$255,870	\$64,500
	Greening Watts	North East Trees;* TreePeople*	\$1,055,918	\$91,575

Table continues next page

Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Urban Greening	WalkBike Watts	Los Angeles Department of Transportation;* Department of Cultural Affairs;* Urban Peace Institute; We Care Outreach	\$3,511,260	\$13,110
	Wilmington Avenue Great Streets	City of Los Angeles Bureau of Street Services,* East Side Riders	\$868,000	\$0
	Weigand Elementary Urban Trees / Rain Garden	From Lot to Spot*	\$124,439	\$10,038
	Watts Cool Schools - Green Schools	Los Angeles Unified School District;* TreePeople*	\$621,861	\$0
	Greening the Blue 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	From Lot to Spot*	\$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
	Jordan Downs Retail Center	Primestor Development, Inc.*	\$0	\$44,314,118
Total**			\$31,688,930	\$167,673,450

*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 Healing 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.

WATTS RISING: STORIES FROM THE COMMUNITY



Watts resident stakeholders and project partners at a collaborative planning retreat. Photo credit: Tree People 2021. Photo courtesy of Watts Rising.

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 provided in reverse chronological order in order to spotlight more recent additions to this annual report. It's important to note that these stakeholders represent only a small sample of the many individuals who have shaped—or been shaped by—the implementation of 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.

No Cost Solar Program Decreases Electricity Bills and Increases Cooling



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 case study spotlights the story of a TCC-funded no-cost solar installation on the home of Moneik Johnson. See [page 48](#) for more information about this project.

The interview for this case study was conducted in June 2021.

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

MONEIK JOHNSON is a longtime and active member of the Watts community where she has owned her home for more than two decades. Moneik experiences first-hand what the science is saying about temperatures in Watts under climate change: it is hot and getting hotter.

Despite the heat, Moneik did not have air conditioning in her home. She struggled to pay her electricity bills, even without the major expense of cooling her home to a comfortable level. But this is changing. She recently had solar panels installed on her home, at no charge to her, and is already seeing 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 in DWP,” said Moneik.

Before having solar installed, Moneik was making monthly payments to pay off her electricity bill. Now she’s able to 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 means that Moneik can now afford to keep her home cooler and more comfortable. “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 commented. Watts, with less green spaces than other parts of the region, is a disproportionately hot community and only getting hotter under climate change.

“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

Moneik 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. When the solar installation program launched, she was one of the first in line when GRID Alternatives started installing solar panels in the community.

Moneik 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.”

Engaging the Community During a Pandemic



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 33** for more information about this plan.

Interviews for these case studies were conducted in December 2020.

A volunteer distributes food to a community member using a socially distant method. Photo credit: MudTown Farms Instagram, @Mudtownfarmswatts 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. The Urban Peace Institute is one of the organizations supporting the Walk-Bike 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 59](#)). 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.”

Prior to 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.”

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.”

“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

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

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



Nourishing Neighbors During a Pandemic



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 42](#) for more information about the MudTown Farms project and [page 59](#) for more information about the Walk Bike Watts project).

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

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

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 resi-

dents 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 Healing Tech Garden has continued to grow its fresh produce at the Edwin Markham Middle School. (For more information, see page 45 for last year’s profile featuring the Watts Healing 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 47.)

“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 Healing Tech Garden project (see [page 53](#) 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 Healing 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, ‘Okay, 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



Watts residents at the Watts Healthy Harvest community engagement event in November 2021. Photo Credit: UCLA Luskin Center for Innovation

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 their three transformative plans and what progress has been made toward plan implementation.

Community Engagement Plan



Attendees at the Healthy Watts Harvest community engagement event in November 2021. Photo Credit: UCLA Luskin Center for Innovation

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 around the creation of the Watts Rising Leadership Council, the advisory body for Watts Rising, as well as multimedia communications and an annual community survey.

Recent Accomplishments*

- » The Mayor’s Office of Economic Opportunity collaboration with the Mayor Garcetti’s Office of Sustainability launched the Watts Rising Air Quality Monitoring Network consisting of installing 13 air quality sensors in the Watts Rising project area.
- » HACLA on boarded 5 Street Team members
- » Watts Rising recruited 10 Community Advisory Group members

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

The Watts Rising Leadership Council is composed of representatives of key stakeholders, as well as Watts residents, business owners, and community leaders. The Leadership Council meets monthly to discuss relevant topics, and meetings are open to the public. The Leadership Council will also host an annual open house.

Given the collaborative nature of the initiative, Watts Rising will also organize 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 thematic areas. Community engagement events often plan to involve multiple projects both within and among hubs.

HACLA will also lead the development of messaging and avenues for communications. This includes the development and maintenance of a website and various social media accounts. Finally, with Charles R. Drew University of Medicine and Science and the Watts Community Studio (the data partner), Watts Rising will issue 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:** \$1,850,915
- » **Leveraged funds:** \$565,200

Progress Through FY 2019-2020

- » HACLA and MOEO received a combined 4 California Climate Action Fellows to assist in project management.
- » The Leadership Council had its kickoff meeting in May and met monthly until December 2019 and again in June 2020.
- » See the Profiles: TCC Funded Projects section for project-specific community engagement accomplishments.

Responses to COVID-19

- » All meetings conducted online.
- » Mudtown Farms adapted outreach by using more social media, as well as by distributing other organizations' flyers during their COVID-safe food distribution events.
- » The rooftop solar and energy efficiency projects focused outreach on mailers and online advertisements.

Displacement Avoidance Plan



May 2021 Small Business Meet-Up featuring ‘Momprenuers’, Janine Watkins and Esperanza Gerardo and other attendees. Photo Credit: Miranda Denerson. Courtesy of 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 Mayor’s Office of Economic Opportunity and Watts Century Latino, 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.

The Mayor’s Office of Economic Opportunity (MOEO) and Watts Century Latino Organization will apply for funding opportunities and support relevant ordinance revisions that support the production and preservation of affordable housing. With outreach and marketing through Watts Rising communication channels and at events, MOEO also plans to promote Los Angeles’s Accessory Dwelling Unit ordinance. This program enables the utilization of part of a primary residence, such as a room detached from the primary dwelling, as additional living space often to be rented out.

Recent Accomplishments*

- » MOEO hosted a monthly virtual Small Business Meet-Up in partnership with the HarborWatts BusinessSource Center, for small business to network and learn about helpful resources.
- » MOEO hosted the first annual “No Place Like Home: Renter & Homeowner Resource Fair” virtually with about 40 participants.
- » MOEO, in collaboration with the HarborWatts BusinessSource Center, hosted the first annual “Minding Your Business: Small Business Summit” with about 50 participants.

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

Furthermore, Watts residents and MOEO provided thought leadership on citywide displacement avoidance and affordable housing production efforts by participating in the L.A. City Planning Commission’s Equity Day and liaising with the Los Angeles Department of City Planning team that is preparing the recently adopted General Plan Housing Element Plan update. MOEO also oversaw the development of a policy brief compiled by Charles R. Drew University Master of Public Health graduate students on possible policy interventions to address housing access such as a local preference for accessing newly-built units in the Jordan Downs public housing community.

To support focus areas, the MOEO is providing a number

of workshops and trainings. These workshops include legal services, tenant resources, tenants’ rights, resident organization, homeownership, foreclosure prevention, financial education, and financial literacy for residents via the Watts Century Latino Organization. Additionally, tenant case management, advocacy, and legal services are available to residents. Workshops for small businesses will cover contracting opportunities, available services and opportunities like the Watts Entrepreneur Business Accelerator’s micro-lending opportunities. HACLA’s trainings will include tenant leadership training for residents, annual training for project partners on business contracting requirements, and a microenterprise and entrepreneurial training program for at least five businesses annually.

Displacement Avoidance Plan

Project Details

- » **Launch date:** April 2019
- » **Anticipated completion date:** July 2024
- » **Project lead:** HACLA
- » **TCC grant funds:** \$0
- » **Leveraged funds:** \$190,000

Progress Through FY 2019-2020

- » 22 residents attended 1 tenants’ rights education class held in English and Spanish
- » 18 residents attended 1 financial education workshop held in English and Spanish
- » 40 residents attended 1 Watts Entrepreneur Business Accelerator (WEBA) micro-lending workshop
- » 11 residents utilized the Low-Income Purchase Assistance Program (LIPA)
- » 11 businesses participated in the Managed Career Solutions - Harbor Watts Business Source Center microenterprise and entrepreneurial training
- » 52 residents attended a combined 173 case management sessions and referrals for renters’ and financial resources
- » Applied for 2 funding opportunities

Responses to COVID-19

- » The Displacement Avoidance Working Group developed a COVID-19 resources flyer, which was distributed to 500 residents at community meetings, food giveaways, and featured on the Watts Rising website.
- » MOEO launched the L.A. Connected program, which helped people access economic assistance programs. They ensured Watts Rising project area residents received information about L.A. Connected by distributing flyers at food distribution events to 4,000 residents.
- » Watts Century Latino Organization and MOEO promoted the Emergency Renters Assistance Program via social media, direct outreach, and by hosting application workshops to connect Watts residents with renter relief assistance.
- » Hosted a Small Business Meet-Up in June 2021 to provide Watts business owners with information on considerations when re-opening their business after shelter-in-place orders were lifted.
- » Watts Century Latino Organization hosted its annual Navidad En El Barrio event while implementing COVID-19 safe protocols. The event included distribution of food, COVID-19 PPE and resources, and general anti-displacement information to roughly 200 families in Watts.

Workforce Development Plan



GRID Alternatives solar installer Lee Kwok works at Marta Patricia Martinez’s home in Watts. Photo credit: Gary Coronado / Los Angeles Times November 2021

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,” Green Commuter Inc. and 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. Green Commuter 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.

Green Commuter will offer free training to 30 Watts residents in a course on electric vehicles. Out of their pool of trainees, Green Commuter plans to hire six residents in support of their Mega Watts project. The three operations associates will ensure electric vehicles are “charged and in the right location” while three customer service associates will provide customer support and assist with outreach and marketing.

Recent Accomplishments*

- » 30 residents completed the Solar Watts Workforce Development Training

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

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

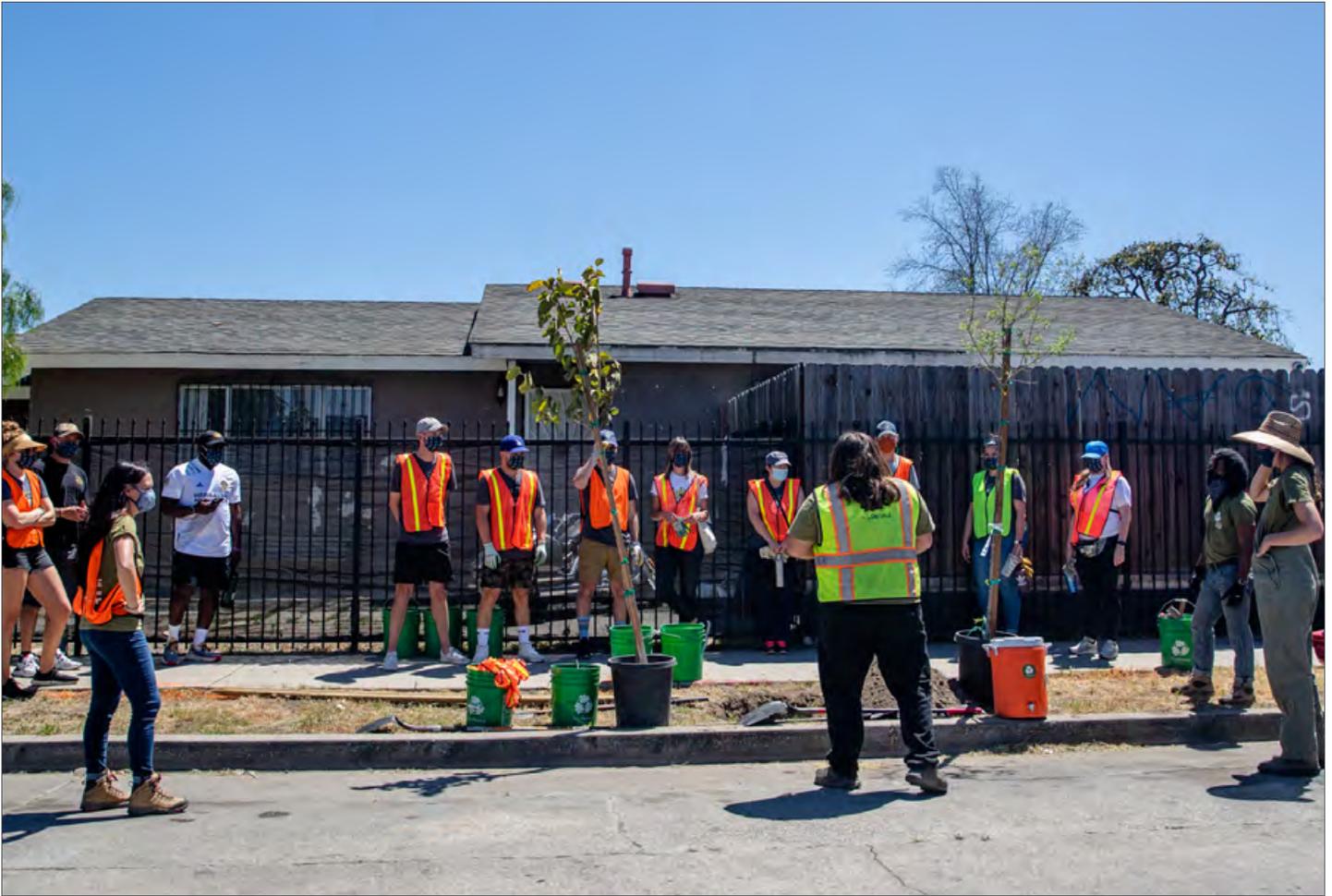
Project Details

- » **Launch date:** April 2019
- » **Anticipated completion date:** July 2024
- » **Project lead:** GRID Alternatives, Green Com-muter
- » **TCC grant funds:** \$327,386
- » **Leveraged funds:** \$5,300

Progress Through FY 2019-2020

- » 3 residents were hired to do construction for Solar Watts
- » 9 trainees were recruited and participated in the El Camino Community College course for the Low Carbon Transportation project.

PROFILES: TCC FUNDED PROJECTS



Volunteers at a tree planting event. Photo credit: Watts Rising.

TCC APPLICANTS CHOSE FROM A WIDE ARRAY OF PROJECT TYPES in their effort to achieve the three objectives of TCC, namely: (1) reductions in GHGs; (2) improvements in public health and environmental benefits, and (3) expanded economic opportunity and shared prosperity. These various project types align with the suite of California Climate Investments overseen by various state agencies.⁸ 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 be using TCC dollars to achieve the aims of the program.

⁸ For more information about California Climate Investments, visits: <http://www.caclimateinvestments.ca.gov/>

Affordable Housing and Sustainable Communities Project



Rendering of Jordan Downs Redevelopment Source. Photo credit: HACLA

INCREASING THE DENSITY OF AFFORDABLE HOUSING aims to reduce vehicle miles traveled (VMT), along with lowering housing and travel costs for Watts residents.⁹ An affordable housing and community center, called Jordan Downs Phase S2, will be constructed by Michaels Development Co. with support from the City of Los Angeles and the Housing Authority of the City of Los Angeles. 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, will facilitate 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 will promote 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.

⁹ For a definition of affordable, see Appendix A of the FY 2017-18 AHSC Program Guidelines.

Recent Accomplishments*

- » Construction began during the summer of 2021
- » 6 BEAST classes held
- » 1 community bike ride held

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

Jordan Downs Phase S2

Project Details

- » Launch date: June 2022
- » Anticipated completion date: April 2023
- » Project lifetime: 30 years
- » TCC grant funds \$13,250,000
- » Leverage funds \$26,446,312
- » Project lead: HACLA

Lifetime Benefits

- » GHG emissions reductions: 8,169 MTCO₂e
- » Energy cost savings: \$3,515,959
- » VMT Reductions: 21,416,643
- » Trees planted: 25
- » Direct jobs from TCC dollars: 58.7
- » Indirect jobs from TCC dollars: 35.7
- » Induced jobs from TCC dollars: 46.9

Responses to COVID-19

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

Food Waste Prevention and Rescue Project



WLCAC team on a distribution day. Photo credit: Watts Rising

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 short 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*

» 365,425.78 pounds of food distributed to 9,354 residents

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

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 Community Action Committee and Food Forward

Lifetime Benefits

- » GHG emissions reductions: 879 MTCO₂e
- » Edible food rescued: 324 short tons
- » Direct jobs from TCC dollars: 4.4 FTEs
- » Indirect jobs from TCC dollars: 1.1 FTEs
- » Induced jobs from TCC dollars: 1.7 FTEs

Progress Through FY 2019-2020

- » 251,551 pounds of food directly redistributed to 9,354 residents
- » 124,000 pounds of food redistributed by partner agencies
- » 365,426 tons of food collected from the LA Produce Mart
- » 10,000 cubic yards of green waste composted and 2,000 tons of material diverted from landfills
- » 345 volunteers across 22 training events trained in food waste prevention and rescue and organics
- » 200 residents in English and 200 in Spanish contacted through outreach

Responses to COVID-19

- » Ensured their 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



Watts Rising and LADOT staff in front of the electric DASH bus prototype at a Drive Electric Week celebration. Photo credit: LADOT

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 front-line of greening the bus system.

Recent Accomplishments*

» LADOT received the first electric bus for inspection in June 2021.

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

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 MTCO₂e
- » Travel cost savings: \$310,025
- » VMT reductions: 1,624,630
- » Direct jobs from TCC dollars: 3.4 FTEs
- » Indirect jobs from TCC dollars: 2.6 FTEs
- » Induced jobs from TCC dollars: 3.4 FTEs

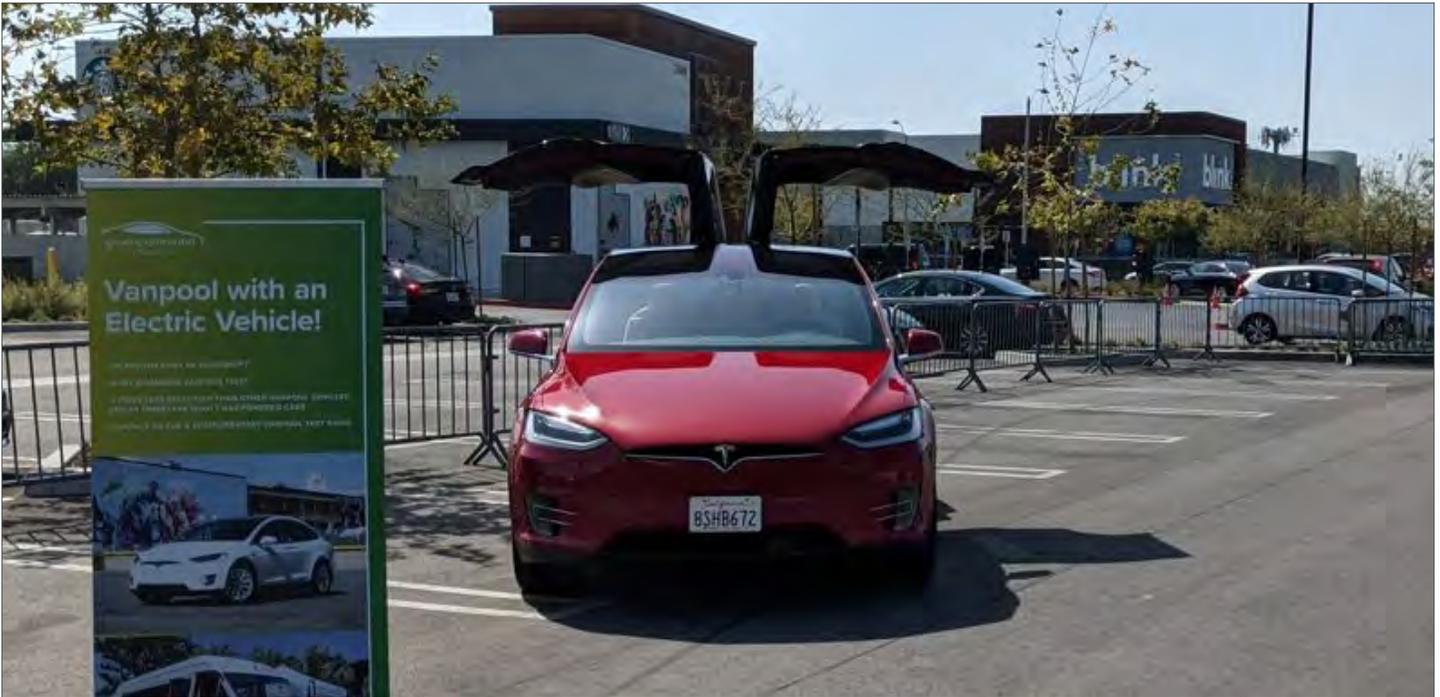
Progress Through FY 2019-2020

- » LADOT signed a contract with BYD Motors Inc. for 10 battery electric DASH buses.

Responses to COVID-19

- » Bus production was delayed due to COVID-19-related factory closure, but the facility reopened in March 2021.

Low Carbon Transportation Project



MegaWatts EV Car Share vehicle example near charging station at Freedom Plaza retail center. Photo credit: UCLA Luskin Center for Innovation

THE WATTS LABOR COMMUNITY ACTION COMMITTEE and Green Commuter 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 (see the Workforce Development Plan section for more information on the training program).

The Mega Watts community engagement efforts will center on events and communication aimed at education and member recruitment. 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 also host educational events, including: “What’s Under the Hood” information sessions and 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.

Recent Accomplishments*

» TBD

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

Mega Watts Electric Vehicle Car Share

Project Details

- » Launch date: April 2019
- » Anticipated completion date: April 2023
- » Project lifetime: 3 years
- » TCC grant funds: \$1,833,862
- » Leverage funds: \$519,120
- » Project Lead: Watts Labor and Community Action Committee; Green Commuter

Lifetime Benefits

- » GHG emissions reductions: 2,618 MTCO₂e
- » Direct jobs from TCC dollars: 8.2 FTEs
- » Indirect jobs from TCC dollars: 3.6 FTEs
- » Induced jobs from TCC dollars: 5.8 FTEs

Progress Through FY 2019-2020

- » 6 chargers were installed
- » 4 site assessments completed with 3 site agreements executed
- » 2 permits for EV charging stations
- » 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 3 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 2021.

GRID ALTERNATIVES is leading the two low-income weatherization programs, which will provide energy cost savings to residents while avoiding GHGs associated with electricity generation in part from fossil fuels. GRID Alternatives is installing approximately 154 kilowatts of solar panels on 48 residences in the site area, for an average project size of 3.2 kilowatts. Habitat for Humanity is providing energy efficiency upgrades for 300 homes. These energy efficiency improvements could include low-flow faucets and shower heads, LED lighting, window unit HVAC system replacement, smart thermostats, 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. 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 advertisements and social media, as well as through multiple outreach events each year.

Recent Accomplishments*

- » The Energy Efficiency assessed 13 units and retrofitted 12. 4,546 residents were contacted through mail outreach in English, 58 residents were contacted directly for outreach, and 59 residents attended outreach events.
- » Solar Watts completed 61 site visits, executed 23 contracts, and contacted 12 residents through outreach and 109 through marketing materials. They constructed a cumulative 9.8 kW of solar on 3 homes.

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

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 \$148,374
- » Project Lead: Habitat for Humanity

Lifetime Benefits

- » GHG emissions reductions 1,994 MTCO₂e
- » Energy cost savings \$517,204
- » Direct jobs from TCC dollars: 9.4 FTEs
- » Indirect jobs from TCC dollars: 3.7 FTEs
- » Induced jobs from TCC dollars: 6.6 FTEs

Progress Through FY 2019-2020

- » Over 300 different types of energy efficiency measures installed in single-family homes
- » 37 energy efficiency site assessments completed
- » 33 retrofit projects completed

Responses to COVID-19

- » Focused outreach on mailers and online advertisements

Solar Watts

Project Details

- » Launch date: April 2019
- » Anticipated completion date: April 2023
- » Project lifetime: 30 years
- » TCC grant funds: \$1,315,152
- » Leverage funds: \$81,338
- » Project lead: GRID Alternatives, Pick My Solar

Lifetime Benefits

- » GHG emissions reductions: 2,304 MTCO₂e
- » Energy cost savings: \$1,029,210
- » Renewable energy generation: 7.7 gigawatt hours
- » Direct jobs from TCC dollars: 6.9 FTEs
- » Indirect jobs from TCC dollars: 2.7 FTEs
- » Induced jobs from TCC dollars: 4.8 FTEs

Progress Through FY 2019-2020

- » 45 solar site visits completed
- » A combined 35.91 kW of solar on 11 single-family homes installed

Responses to COVID-19

- » Focused outreach on mailers and online advertisements

Urban Community Forestry Projects



Greening Public Housing. Photo credit: Watts Rising.

THE FOUR WATTS RISING URBAN COMMUNITY FORESTRY projects focus on planting a total of 2,250 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 completed tree planting for the Greening Public Housing project in June 2021.
- » The Watts Healing Tech Garden held 18 distribution days, 1 Veggies and Vehicles Event, 1 Community Volunteer Day, and distributed 10,667 pounds of food.
- » 4 residents completed 1 round of the Watts Yardners growers certificate program.
- » North East Trees trained 5 local youth on tree planting and maintenance.

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

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:** \$255,870
- » **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 FTEs
- » **Indirect jobs from TCC dollars:** 0.6 FTEs
- » **Induced jobs from TCC dollars:** 1.0 FTE

Progress Through FY 2019-2020

- » Tree planting completed
- » 5 local youth trained and hired
- » 300 residents contacted through outreach in English

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 1,800 trees planted throughout the Watts project area. This includes 950 trees planted along streets, in parks, schools, parking lots, or other open spaces. 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 850 trees will be distributed to local residents, who can learn how to care for their tree at Tree Care Workshops. North East Trees will also utilize the youth trained as a part of Greening Watts to help maintain trees. 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

Lifetime Benefits

- » **GHG emissions reductions:** 3,778 MTCO₂e
- » **Trees planted:** 1,800
- » **Direct jobs from TCC dollars:** 11.7 FTEs
- » **Indirect jobs from TCC dollars:** 2.1 FTEs
- » **Induced jobs from TCC dollars:** 4 FTEs

Progress Through FY 2019-2020

- » 384 trees distributed to residents for planting at homes
- » 53 trees planted at tree planting events
- » 30 volunteers participated in tree planting events
- » 851 residents contacted through outreach

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 Healing Tech Garden

The Watts Healing 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) (Community Healing Gardens used to be the lead but is no longer as of FY 2019-'20). Middle school students can take course electives that use the garden as an educational laboratory. Middle school 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:** July 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 FTEs
- » **Indirect jobs from TCC dollars:** 0.8 FTEs
- » **Induced jobs from TCC dollars:** 1.7 FTEs

Progress Through FY 2019-2020

- » 10,890 square feet of garden planted; 10,667 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

Responses to COVID-19

- » The Watts Healing 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. These farms will include 150 fruit trees. Youth "Yardners" trained as part of this project will assist with outreach, as well as tree maintenance. Five cohorts will be recruited for the 20-hour Watts Growers Certification 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 MTCO₂e
- » **Trees planted:** 150
- » **Direct jobs from TCC dollars:** 5.2 FTEs
- » **Indirect jobs from TCC dollars:** 1 FTE
- » **Induced jobs from TCC dollars:** 1.9 FTEs

Progress Through FY 2019-2020

- » Over 200 flyers in English and Spanish distributed to Watts residents
- » 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.

Urban Greening Projects



From Lot to Spot Community Garden. 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*

- » Walk Bike Watts completed 3 leading pedestrian intervals; About 600 students a day use the 5 safe passage routes completed, led by 4 trained and hired Safe Passage Workers; 370 attendees at 2 events

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

Century Gateway Park

Century Gateway Park will develop a 0.62-acre park. The Century Gateway Park will have 35 trees, local and drought tolerant plants near the intersection of East Century Boulevard and Grape Streets. **Century Gateway 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:** June 2022
- » **Anticipated completion date:** April 2023
- » **Project lifetime:** 40 years
- » **TCC grant funds:** \$428,575
- » **Leverage funds:** \$260,683
- » **Project lead:** The Michaels Organization

Lifetime Benefits

- » **GHG emissions reductions:** 69 MTCO₂e
- » **Energy cost savings:** \$1,185
- » **Trees planted:** 35
- » **Direct jobs from TCC dollars:** TBD FTEs
- » **Indirect jobs from TCC dollars:** TBD FTEs
- » **Induced jobs from TCC dollars:** TBD FTEs

Progress Through FY 2019-2020

- » Project implementation pending.

Freedom Tree Park

Freedom Tree Park will develop a 1-acre park. Freedom Tree Park will be located across from the Century Gateway Park and will 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:** January 2023
- » **Project lifetime:** 40 years
- » **TCC grant funds:** \$1,157,900
- » **Leverage funds:** \$0
- » **Project lead:** The Michaels Organization

Lifetime Benefits

- » **GHG emissions reductions:** 69 MTCO₂e
- » **Energy cost savings:** \$1,184
- » **Trees planted:** 35
- » **Direct Jobs from TCC dollars:** 8.1
- » **Indirect Jobs from TCC dollars:** 1.9
- » **Induced Jobs from TCC dollars:** 5.3

Progress Through FY 2019-2020

- » 3 community events for Jordan Downs residents, park users, and Watts families were held, with over 100 attendees across 3 events in English and Spanish.

Greening the Blue Line

The Greening the Blue Line project will result in the planting of 200 trees in the first and last mile radius of the 103rd Street stop of the Blue Line Metro. The project will include 10 tree planting events and 19 tree care events. Greening the Blue 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 MTCO₂e
- » **Energy Cost Savings:** \$6,770
- » **Trees planted:** 200
- » **Direct Jobs from TCC dollars:** 2.9
- » **Indirect Jobs from TCC dollars:** 0.7
- » **Induced Jobs from TCC dollars:** 1.2

Progress Through FY 2019-2020

- » More than 200 planting locations have been identified
- » Began recruiting tree planting volunteer efforts

Walk Bike Watts

The Los Angeles Department of Transportation and the City of Los Angeles Department of Cultural Affairs are leading the **Walk Bike 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 will include way-finding signage, will be designed and implemented through a community engagement process, with a goal of soliciting input 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:** \$13,110
- » **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
- » **Indirect Jobs from TCC dollars:** 7.1
- » **Induced Jobs from TCC dollars:** 13

Progress Through FY 2019-2020

- » 3 leading pedestrian intervals completed
- » About 600 students a day use the 5 safe passage routes completed, led by 4 trained and hired Safe Passage Workers

Responses to COVID-19

- » Walk Bike Watts's Safe Passages project, led by We Care Outreach, supported the East Side Rider's distribution of food to the community by providing guidance to those coming to collect food on how to follow COVID-19 public health safety guidelines.
- » The Urban Peace Institute, part of the WalkBike Watts project, moved their community engagement meetings online and used them as a platform to disseminate critical public health information about the pandemic and provide updates on resources to the community.

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. Volunteer five-person “green teams” will support tree planting, care, and maintenance and will participate in 16 tree care events. 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:** \$0
- » **Project lead:** Los Angeles Unified School District; TreePeople

Lifetime Benefits

- » **GHG emissions reductions:** 220 MTCO₂e
- » **Energy cost savings:** \$3,791
- » **Trees planted:** 112
- » **Direct jobs from TCC dollars:** 4.3
- » **Indirect jobs from TCC dollars:** 1.1
- » **Induced jobs from TCC dollars:** 2.8

Progress Through FY 2019-2020

- » 9 Green Team volunteers recruited
- » The Landscape Plan was finalized and sent to LAUSD for approval

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. The project also plans to develop three Jordan High School lesson plans. At each elementary school.

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:** From Lot to Spot

Lifetime Benefits

- » **GHG emissions reductions:** 84 MTCO₂e
- » **Energy cost savings:** \$1,456
- » **Trees planted:** 43
- » **Direct jobs from TCC dollars:** 0.9
- » **Indirect jobs from TCC dollars:** 0.2
- » **Induced jobs from TCC dollars:** 0.5

Progress Through FY 2019-2020

- » 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 3 lessons for 59 Jordan High School students

Responses to COVID-19

- » Weigand Elementary Urban Trees/Rain Gardens conducted 2 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:** Grant Housing and Economic Development Corporation

Lifetime Benefits

- » **GHG emissions reductions:** 268 MTCO₂e
- » **Energy cost savings:** \$1,354
- » **Travel cost savings:** \$320,760
- » **VMT reductions:** 27,700
- » **Trees planted:** 40
- » **Direct jobs from TCC dollars:** 6.1
- » **Indirect jobs from TCC dollars:** 1.5
- » **Induced jobs from TCC dollars:** 4

Progress Through FY 2019-2020

- » Project implementation pending.



Watts Rising Collaborative Community Event. Photo credit: HACLA

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

Progress Through FY 2019-2020

- » This 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: From Lot to Spot
- » TCC grant funds: \$0
- » Leveraged funds: \$104,166

Progress Through FY 2019-2021

- » 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
- » Construction and community planting days have been delayed due to COVID-19

Central Avenue Streetscape



Ground breaking ceremony for Central Avenue Streetscape improvements. 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 bump outs, 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: \$4,127,209

Progress Through FY 2019-2021

- » Implementation pending, construction has been delayed as a result of the COVID-19 pandemic.

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

Progress Through FY 2019-2021

- » This project was completed in August 2018.

Jordan Downs Phase 1B



Rendering of Jordan Downs Phase 1B. Photo credit: SVA Architects

MICHAELS DEVELOPMENT CO. is leading the construction of 135 affordable multifamily 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: TBD
- » Anticipated completion date: TBD
- » Project lead: Michaels Development Corporation
- » TCC grant funds: \$0
- » Leveraged funds: \$67,682,777

Progress Through FY 2019-2021

- » Construction is complete
- » One local non-profit has signed up to utilize the retail space

Jordan Downs Retail Center



Jordan Downs Phase 1B Retail Center. Photo credit: Watts Rising

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

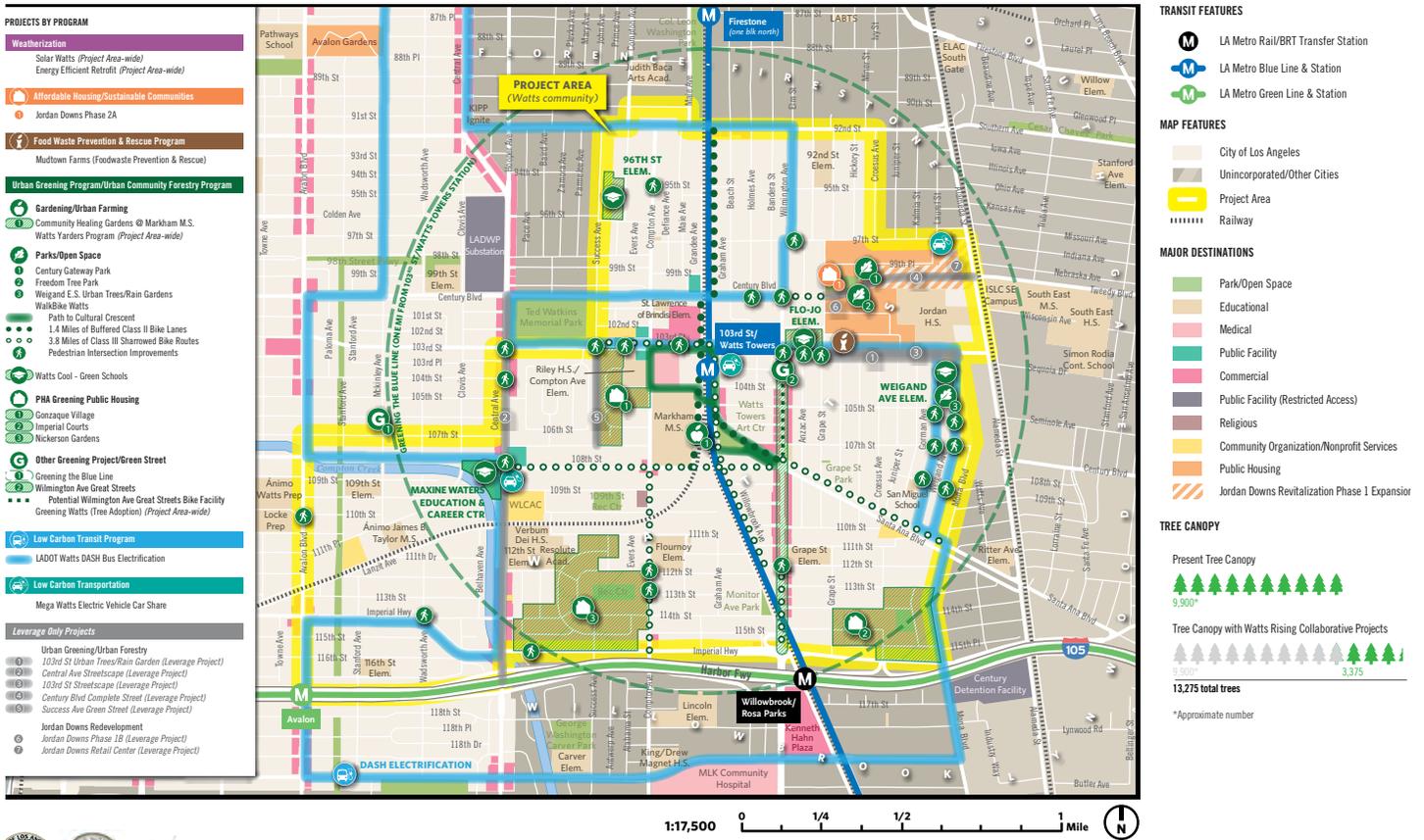
- » Launch date: TBD
- » Anticipated completion date: TBD
- » Project lead: Primestor Development, Inc.
- » TCC grant funds: \$0
- » Leveraged funds: \$44,314,118

Progress Through FY 2019-2021

- » Completed all construction including of Nike Inc., Smart & Final Extra!, Ross Stores Inc., and Blink Fitness
- » 31,299 square feet of grocery store constructed
- » Working with WingStop, Southern Girl Desserts and more to build out spaces

APPENDICES

Appendix 1: Supplemental Maps

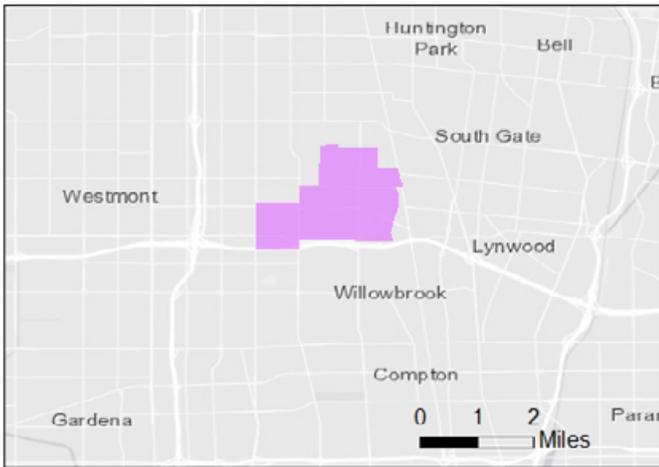


Detailed map of Watts Rising project locations. Photo credit: Watts Rising Collaborative

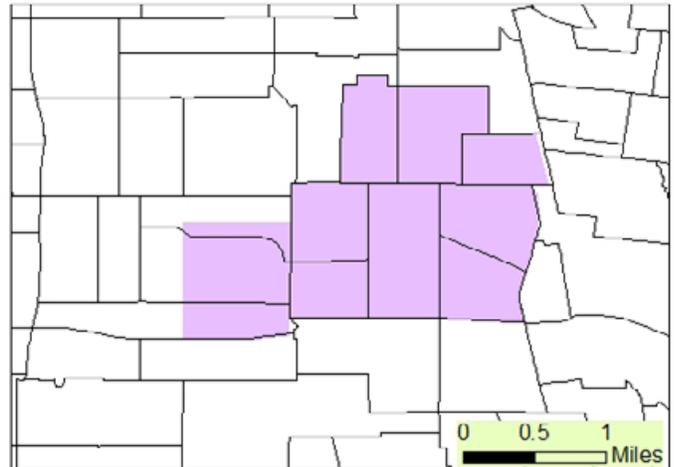
Watts Rising Collaborative
 HACLA | TCC GRANT APPLICATION | JANUARY 2019
 SUPPLEMENTAL MATERIALS 9-1: PROJECTS MAP (JANUARY, 2019 UPDATE)

Watts TCC Project Area Overlay Maps

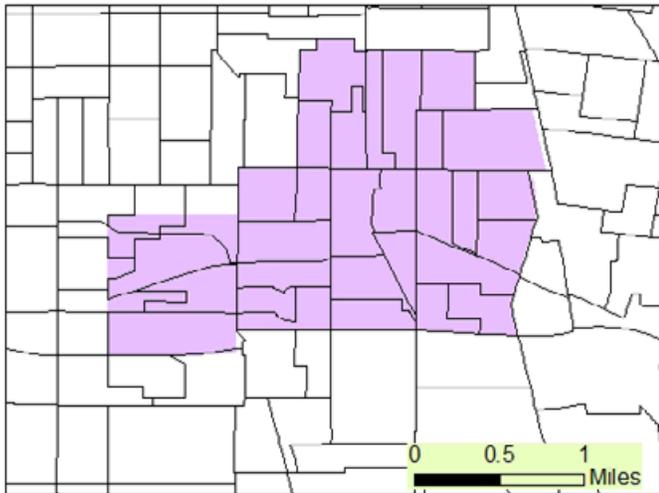
(#) = number of geographic units that intersect with TCC project area (excluding units with less than 2% of total area under TCC project area)
Census tract, block group, and zip code maps from US Census Bureau (2016)



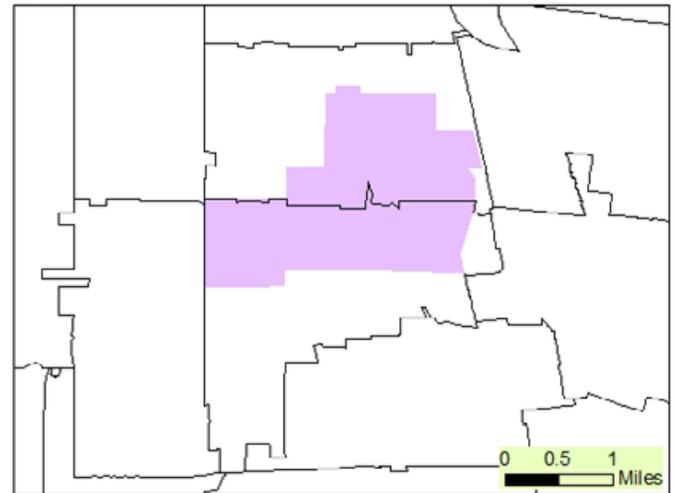
Watts TCC Project Area



Census Tracts (12)



Census Block Groups (36)



Zip Code Tabulation Areas (2)

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 ¹⁰	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 ¹¹	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

¹⁰ 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).

¹¹ 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



Watts Rising Collaborative Stakeholder Structure

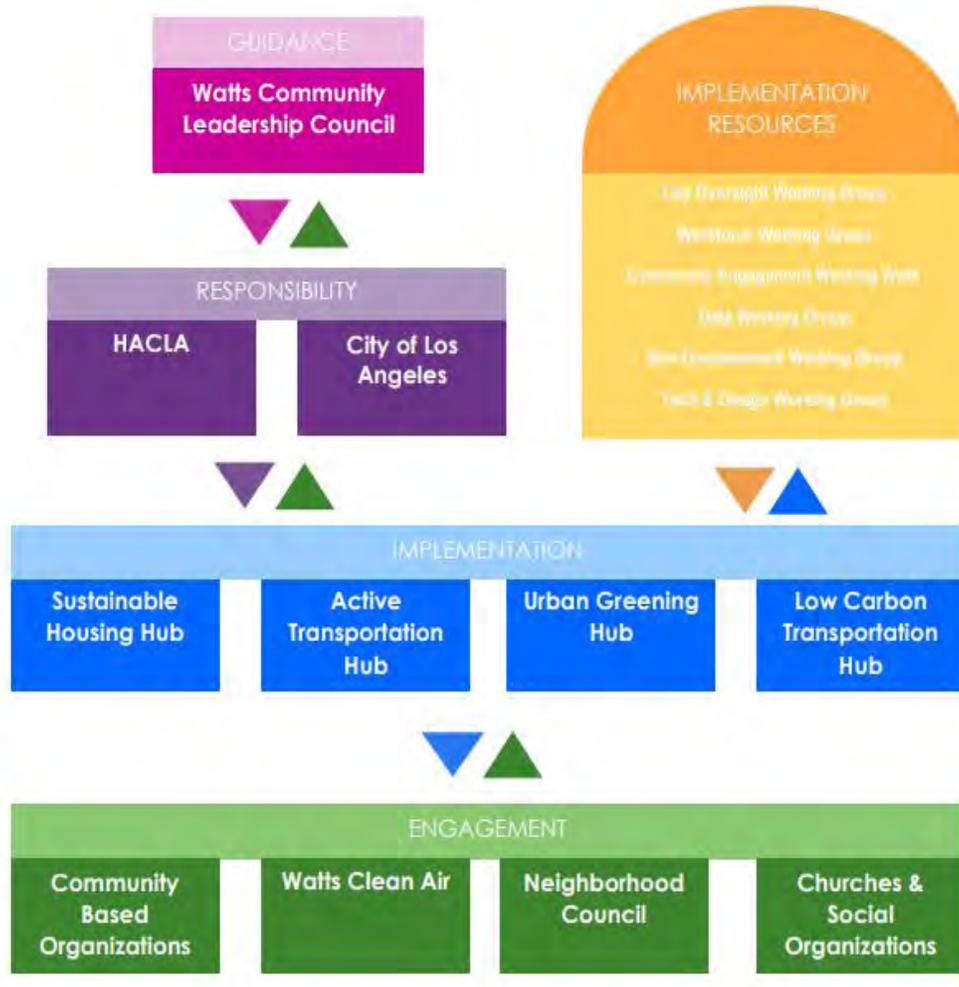


Diagram showing the Watts Rising Collaborative Structure. Photo credit: Housing Authority of Los Angeles and Watts Rising



**Watts Rising Collaborative
Project Implementation Hub Organization**

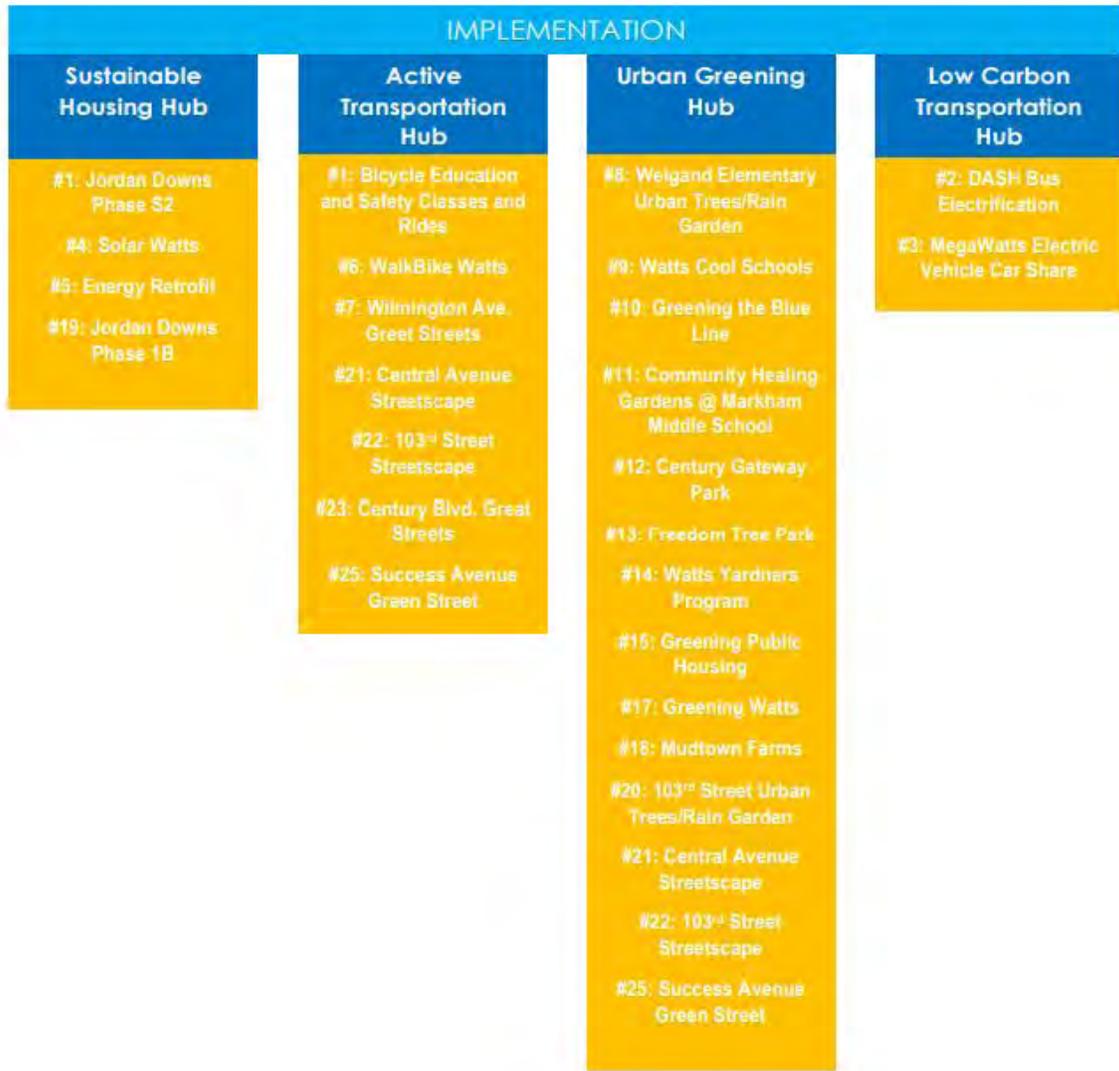


Diagram showing the Watts Rising Hub Structure. Photo credit: Housing Authority of Los Angeles and Watts Rising

Appendix 4: 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 5: 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 6: Indicator Data

Appendix 6.1: Demographics

Table A6.1.1: 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)	2009-2013	53,716	1,829	162,558	3,251	9,893,481	0	37,659,181	0
	2010-2014	55,008	1,854	164,136	3,143	9,974,203	0	38,066,920	0
	2011-2015	56,232	1,905	168,937	3,062	10,038,388	0	38,421,464	0
	2012-2016	57,518	1,882	169,881	2,981	10,057,155	0	38,654,206	0
	2013-2017	58,080	1,854	174,454	3,005	10,105,722	0	38,982,847	0
	2014-2018	57,757	1,884	178,719	2,976	10,098,052	0	39,148,760	0
	2015-2019	58,061	1,877	180,450	3,176	10,081,570	0	39,283,497	0
	2016-2020	37,259	2,298	161,014	4,874	10,040,682	0	39,346,023	0
Percent Hispanic, all races (B03002)	2009-2013	71.3%	2.5%	71.8%	1.4%	47.9%	0.0%	37.9%	0.0%
	2010-2014	71.0%	2.4%	72.7%	1.3%	48.1%	0.0%	38.2%	0.0%
	2011-2015	71.8%	2.4%	73.1%	1.4%	48.2%	0.0%	38.4%	0.0%
	2012-2016	71.6%	2.4%	72.9%	1.3%	48.3%	0.0%	38.6%	0.0%
	2013-2017	72.9%	2.2%	73.2%	1.2%	48.4%	0.0%	38.8%	0.0%
	2014-2018	73.6%	2.1%	74.1%	1.2%	48.5%	0.0%	38.9%	0.0%
	2015-2019	74.1%	2.0%	74.7%	1.2%	48.5%	0.0%	39.0%	0.0%
	2016-2020	68.7%	2.4%	74.9%	1.5%	48.3%	0.0%	39.1%	0.0%
Percent White, non-Hispanic (B03002)	2009-2013	11.8%	1.4%	12.1%	0.7%	32.5%	0.0%	39.7%	0.0%
	2010-2014	0.7%	0.3%	1.1%	0.2%	27.5%	0.0%	39.7%	0.0%
	2011-2015	0.7%	0.4%	0.9%	0.2%	27.2%	0.0%	39.2%	0.0%
	2012-2016	0.7%	0.4%	1.1%	0.2%	26.9%	0.0%	38.7%	0.0%
	2013-2017	0.8%	0.4%	1.2%	0.2%	26.7%	0.0%	38.4%	0.0%
	2014-2018	0.8%	0.4%	1.2%	0.2%	26.5%	0.0%	37.9%	0.0%
	2015-2019	0.8%	0.3%	1.6%	0.2%	26.2%	0.0%	37.2%	0.0%
	2016-2020	0.9%	0.5%	1.4%	0.3%	25.9%	0.0%	36.5%	0.0%

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

Table continues 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 all communities of color, non-Hispanic: Black, Asian, Pacific Islander, American Indian, other, and two or more races (B03002)	2009-2013	28.0%	1.8%	27.0%	1.0%	24.6%	0.1%	22.4%	0.0%
	2010-2014	28.3%	1.7%	26.4%	1.0%	24.7%	0.1%	22.7%	0.0%
	2011-2015	27.5%	1.8%	25.8%	1.0%	24.8%	0.1%	22.9%	0.0%
	2012-2016	27.6%	1.8%	25.9%	1.0%	24.9%	0.1%	23.1%	0.0%
	2013-2017	26.4%	2.0%	25.6%	1.0%	25.1%	0.1%	23.3%	0.0%
	2014-2018	25.5%	2.0%	24.5%	1.0%	25.2%	0.1%	23.6%	0.0%
	2015-2019	25.1%	1.8%	23.7%	1.0%	25.3%	0.1%	23.8%	0.0%
	2016-2020	30.4%	4.2%	23.7%	1.4%	25.8%	0.1%	24.1%	0.1%
Percent other communities of color, non-Hispanic: Pacific Islander, American Indian, other, two or more races	2009-2013	0.8%	0.6%	1.0%	0.3%	2.7%	0.0%	3.6%	0.0%
	2010-2014	0.7%	0.5%	1.0%	0.3%	2.8%	0.1%	3.7%	0.0%
	2011-2015	0.9%	0.6%	1.1%	0.2%	2.9%	0.1%	3.7%	0.0%
	2012-2016	1.2%	0.7%	1.2%	0.2%	2.9%	0.0%	3.8%	0.0%
	2013-2017	1.1%	0.6%	1.2%	0.3%	2.9%	0.0%	3.9%	0.0%
	2014-2018	1.4%	0.8%	1.2%	0.2%	3.0%	0.0%	3.9%	0.0%
	2015-2019	1.7%	0.9%	1.2%	0.2%	3.0%	0.1%	4.0%	0.0%
	2016-2020	2.0%	0.9%	1.6%	0.5%	3.4%	0.1%	4.4%	0.0%
Percent Black, non-Hispanic (B03002)	2009-2013	26.9%	1.7%	25.4%	1.0%	8.1%	0.0%	5.7%	0.0%
	2010-2014	27.4%	1.7%	24.9%	0.9%	8.0%	0.0%	5.7%	0.0%
	2011-2015	26.3%	1.7%	24.2%	1.0%	8.0%	0.0%	5.6%	0.0%
	2012-2016	25.8%	1.7%	24.2%	1.0%	8.0%	0.0%	5.6%	0.0%
	2013-2017	24.6%	1.9%	23.8%	1.0%	7.9%	0.0%	5.5%	0.0%
	2014-2018	23.6%	1.8%	22.6%	0.9%	7.9%	0.0%	5.5%	0.0%
	2015-2019	22.7%	1.5%	21.6%	0.9%	7.8%	0.0%	5.5%	0.0%
	2016-2020	27.1%	4.0%	21.4%	1.3%	7.8%	0.0%	5.4%	0.0%
Percent Asian, non-Hispanic (B03002)	2009-2013	0.2%	0.2%	0.6%	0.3%	13.7%	0.0%	13.1%	0.0%
	2010-2014	0.3%	0.2%	0.5%	0.2%	13.8%	0.0%	13.3%	0.0%
	2011-2015	0.3%	0.3%	0.5%	0.1%	14.0%	0.0%	13.5%	0.0%
	2012-2016	0.6%	0.4%	0.6%	0.2%	14.1%	0.0%	13.7%	0.0%
	2013-2017	0.6%	0.4%	0.6%	0.2%	14.3%	0.0%	13.9%	0.0%
	2014-2018	0.5%	0.3%	0.7%	0.2%	14.4%	0.0%	14.1%	0.0%
	2015-2019	0.7%	0.6%	0.8%	0.2%	14.4%	0.0%	14.3%	0.0%
	2016-2020	1.3%	1.0%	0.7%	0.2%	14.6%	0.0%	14.6%	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)	2009-2013	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.0%	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%
	2012-2016	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.4%	0.0%
	2013-2017	0.1%	0.1%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2014-2018	0.2%	0.2%	0.0%	0.0%	0.3%	0.0%	0.4%	0.0%
	2015-2019	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2016-2020	0.1%	0.2%	0.1%	0.1%	0.2%	0.0%	0.3%	0.0%
Percent American Indian, non-Hispanic (B03002)	2009-2013	0.4%	0.3%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.3%	0.3%	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%
	2012-2016	0.5%	0.5%	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%
	2014-2018	0.6%	0.7%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2015-2019	0.8%	0.8%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2016-2020	0.4%	0.4%	0.2%	0.1%	0.2%	0.0%	0.3%	0.0%
Percent two or more races, non-Hispanic (B03002)	2009-2013	0.1%	0.1%	0.7%	0.2%	2.1%	0.0%	2.6%	0.0%
	2010-2014	0.1%	0.1%	0.6%	0.2%	2.2%	0.0%	2.7%	0.0%
	2011-2015	0.2%	0.1%	0.6%	0.2%	2.2%	0.0%	2.8%	0.0%
	2012-2016	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	2.9%	0.0%
	2013-2017	0.3%	0.2%	0.7%	0.2%	2.2%	0.0%	2.9%	0.0%
	2014-2018	0.3%	0.2%	0.6%	0.2%	2.2%	0.0%	3.0%	0.0%
	2015-2019	0.5%	0.2%	0.7%	0.2%	2.3%	0.1%	3.0%	0.0%
	2016-2020	1.0%	0.6%	0.8%	0.3%	2.6%	0.1%	3.4%	0.0%
Percent other, non-Hispanic (B03002)	2009-2013	0.4%	0.5%	0.2%	0.1%	0.2%	0.0%	0.2%	0.0%
	2010-2014	0.3%	0.4%	0.3%	0.1%	0.2%	0.0%	0.2%	0.0%
	2011-2015	0.3%	0.4%	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%
	2013-2017	0.3%	0.3%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2014-2018	0.3%	0.3%	0.4%	0.1%	0.3%	0.0%	0.2%	0.0%
	2015-2019	0.4%	0.4%	0.3%	0.1%	0.3%	0.0%	0.3%	0.0%
	2016-2020	0.5%	0.6%	0.6%	0.4%	0.4%	0.0%	0.3%	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)	2009-2013	31.5%	1.9%	40.1%	1.1%	35.1%	0.1%	27.0%	0.1%
	2010-2014	31.4%	1.8%	39.5%	1.0%	34.9%	0.1%	27.0%	0.1%
	2011-2015	31.6%	1.8%	38.5%	0.9%	34.7%	0.1%	27.0%	0.1%
	2012-2016	32.1%	1.7%	37.8%	0.9%	34.5%	0.1%	27.0%	0.1%
	2013-2017	32.4%	1.7%	37.4%	0.9%	34.4%	0.1%	27.0%	0.1%
	2014-2018	32.7%	1.8%	37.8%	0.9%	34.2%	0.1%	26.9%	0.1%
	2015-2019	33.0%	1.6%	38.2%	1.0%	34.0%	0.1%	26.8%	0.1%
	2016-2020	29.6%	1.6%	36.7%	1.0%	33.4%	0.1%	26.6%	0.1%
Percent born in Asia (B05006)	2009-2013	0.2%	0.2%	0.5%	0.2%	11.9%	0.1%	9.8%	0.0%
	2010-2014	0.2%	0.2%	0.4%	0.1%	12.0%	0.1%	10.0%	0.0%
	2011-2015	0.2%	0.2%	0.4%	0.1%	12.0%	0.1%	10.1%	0.0%
	2012-2016	0.5%	0.3%	0.4%	0.1%	12.1%	0.1%	10.2%	0.0%
	2013-2017	0.5%	0.3%	0.5%	0.1%	12.1%	0.1%	10.4%	0.0%
	2014-2018	0.5%	0.3%	0.6%	0.1%	12.2%	0.1%	10.5%	0.0%
	2015-2019	0.7%	0.6%	0.6%	0.1%	12.2%	0.1%	10.6%	0.0%
	2016-2020	1.0%	0.8%	0.6%	0.1%	12.2%	0.1%	10.6%	0.0%
Percent born in Africa (B05006)	2009-2013	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2011-2015	0.0%	0.1%	0.2%	0.1%	0.6%	0.0%	0.4%	0.0%
	2012-2016	0.0%	0.1%	0.2%	0.1%	0.5%	0.0%	0.5%	0.0%
	2013-2017	0.1%	0.1%	0.3%	0.1%	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%
	2015-2019	0.2%	0.2%	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%
Percent born in Latin America (B05006)	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2011-2015	31.3%	1.8%	37.7%	1.0%	20.0%	0.1%	14.2%	0.1%
	2012-2016	31.4%	1.7%	37.1%	0.9%	19.8%	0.1%	14.0%	0.0%
	2013-2017	31.6%	1.7%	36.5%	0.9%	19.6%	0.1%	13.8%	0.1%
	2014-2018	32.1%	1.8%	36.7%	0.9%	19.4%	0.1%	13.7%	0.1%
	2015-2019	32.1%	1.6%	37.0%	1.0%	19.2%	0.1%	13.5%	0.1%
	2016-2020	28.3%	1.5%	35.5%	1.0%	18.8%	0.1%	13.2%	0.1%

Appendix 6.2: Economy

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

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Median household income (B19001)	2009-2013	\$27,634	N/A	\$29,801	N/A	\$55,909	\$256	\$61,094	\$157
	2010-2014	\$28,349	N/A	\$29,000	N/A	\$55,870	\$244	\$61,489	\$154
	2011-2015	\$28,080	N/A	\$29,389	N/A	\$56,196	\$270	\$61,818	\$156
	2012-2016	\$29,543	N/A	\$29,880	N/A	\$57,952	\$331	\$63,783	\$188
	2013-2017	\$30,274	N/A	\$32,088	N/A	\$61,015	\$262	\$67,169	\$192
	2014-2018	\$31,508	N/A	\$35,188	N/A	\$64,251	\$247	\$71,228	\$217
	2015-2019	\$33,171	N/A	\$38,381	N/A	\$68,044	\$347	\$75,235	\$232
	2016-2020	\$33,089	N/A	\$40,447	N/A	\$71,358	\$336	\$78,672	\$270
Percent of individuals living below poverty (B17001)	2009-2013	41.8%	2.9%	37.4%	1.6%	17.8%	0.2%	15.9%	0.1%
	2010-2014	42.9%	2.7%	38.6%	1.6%	18.4%	0.2%	16.4%	0.1%
	2011-2015	44.9%	2.9%	39.0%	1.5%	18.2%	0.1%	16.3%	0.1%
	2012-2016	43.4%	2.9%	38.4%	1.6%	17.8%	0.2%	15.8%	0.1%
	2013-2017	41.2%	3.0%	36.1%	1.5%	17.0%	0.2%	15.1%	0.1%
	2014-2018	37.4%	2.9%	31.8%	1.4%	16.0%	0.2%	14.3%	0.1%
	2015-2019	34.9%	2.7%	29.6%	1.5%	14.9%	0.1%	13.4%	0.1%
	2016-2020	35.3%	3.6%	28.7%	1.8%	14.2%	0.2%	12.6%	0.1%
Percent high income (\$125k +) (B19001)	2009-2013	3.1%	1.0%	3.1%	0.5%	17.6%	0.1%	19.9%	0.1%
	2010-2014	3.3%	1.0%	2.9%	0.5%	18.0%	0.1%	20.4%	0.1%
	2011-2015	3.1%	0.9%	2.9%	0.5%	18.3%	0.1%	20.9%	0.1%
	2012-2016	2.8%	0.9%	3.2%	0.5%	19.4%	0.1%	22.1%	0.1%
	2013-2017	2.6%	0.9%	3.9%	0.6%	21.0%	0.2%	23.9%	0.1%
	2014-2018	3.6%	1.0%	5.7%	0.7%	22.8%	0.2%	26.1%	0.1%
	2015-2019	4.6%	1.1%	7.3%	0.8%	24.5%	0.2%	28.0%	0.1%
	2016-2020	4.8%	1.4%	8.6%	1.0%	26.0%	0.2%	29.8%	0.1%
Percent with less than high school education (S1501)	2009-2013	50.0%	2.6%	50.3%	1.3%	23.4%	0.1%	18.8%	0.1%
	2010-2014	48.1%	2.3%	50.6%	1.3%	23.2%	0.1%	18.5%	0.1%
	2011-2015	47.2%	2.2%	48.5%	1.3%	22.7%	0.1%	18.2%	0.1%
	2012-2016	46.3%	2.1%	47.8%	1.3%	22.3%	0.1%	17.9%	0.1%
	2013-2017	47.2%	2.1%	47.0%	1.3%	21.8%	0.1%	17.5%	0.1%
	2014-2018	46.6%	2.3%	46.0%	1.3%	21.3%	0.1%	17.1%	0.1%
	2015-2019	46.4%	2.2%	45.4%	1.3%	20.9%	0.1%	16.7%	0.1%
	2016-2020	44.2%	1.7%	45.0%	1.2%	20.2%	0.1%	16.1%	0.1%

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

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent with bachelor's degree or higher (S1501)	2009-2013	4.0%	0.9%	6.7%	0.6%	29.7%	0.2%	30.7%	0.1%
	2010-2014	4.2%	0.9%	6.6%	0.5%	29.9%	0.2%	31.0%	0.1%
	2011-2015	4.8%	0.9%	6.6%	0.5%	30.3%	0.2%	31.4%	0.1%
	2012-2016	6.1%	1.0%	6.7%	0.5%	30.8%	0.1%	32.0%	0.1%
	2013-2017	5.9%	0.9%	6.9%	0.6%	31.2%	0.2%	32.6%	0.1%
	2014-2018	5.4%	0.9%	7.2%	0.6%	31.8%	0.2%	33.3%	0.1%
	2015-2019	6.2%	1.0%	7.7%	0.6%	32.5%	0.2%	33.9%	0.1%
	2016-2020	7.0%	2.2%	8.3%	0.7%	33.5%	0.2%	34.7%	0.1%
Percent employed for the population 16 years and over (B23025)	2009-2013	45.6%	1.8%	51.2%	1.0%	57.5%	0.1%	56.4%	0.1%
	2010-2014	45.9%	1.8%	51.1%	1.0%	57.5%	0.1%	56.4%	0.1%
	2011-2015	45.7%	1.8%	51.4%	1.0%	58.0%	0.1%	56.9%	0.1%
	2012-2016	47.8%	1.9%	51.7%	1.0%	58.6%	0.1%	57.5%	0.1%
	2013-2017	48.9%	1.9%	52.7%	1.0%	59.3%	0.1%	58.2%	0.1%
	2014-2018	50.9%	2.1%	54.6%	1.0%	60.0%	0.1%	58.9%	0.1%
	2015-2019	52.4%	1.9%	56.3%	1.0%	60.7%	0.1%	59.4%	0.1%
	2016-2020	50.2%	1.1%	55.9%	0.9%	60.5%	0.1%	59.4%	0.1%

Appendix 6.3: Energy

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

	Time Period (ACS 5-year sample)	Estimate 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)	2009-2013	19.0%	2.3%	25.1%	1.3%	25.0%	0.1%	25.5%	0.1%
	2010-2014	18.9%	2.2%	24.4%	1.3%	25.2%	0.1%	25.8%	0.1%
	2011-2015	21.8%	2.2%	25.1%	1.3%	25.7%	0.1%	26.2%	0.1%
	2012-2016	21.3%	2.4%	22.8%	1.2%	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%
	2014-2018	21.8%	2.3%	19.7%	1.1%	25.9%	0.2%	26.4%	0.1%
	2015-2019	23.0%	2.3%	20.2%	1.2%	26.1%	0.2%	26.6%	0.1%
	2016-2020	21.8%	3.2%	19.8%	1.4%	26.7%	0.2%	27.1%	0.1%
Percent of households heating home with other non-fossil fuels (B25040)	2009-2013	0.0%	0.2%	0.3%	0.2%	0.3%	0.0%	1.9%	0.0%
	2010-2014	0.0%	0.2%	0.2%	0.1%	0.3%	0.0%	1.9%	0.0%
	2011-2015	0.0%	0.2%	0.2%	0.1%	0.4%	0.0%	1.9%	0.0%
	2012-2016	0.1%	0.2%	0.2%	0.1%	0.4%	0.0%	2.0%	0.0%
	2013-2017	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%
	2015-2019	0.1%	0.2%	0.1%	0.1%	0.5%	0.0%	2.1%	0.0%
	2016-2020	0.3%	0.4%	0.3%	0.2%	0.5%	0.0%	2.2%	0.0%
Percent of households heating home with utility gas (B25040)	2009-2013	61.3%	2.8%	61.3%	1.5%	67.7%	0.2%	66.0%	0.1%
	2010-2014	59.5%	2.6%	60.7%	1.4%	67.2%	0.1%	65.6%	0.1%
	2011-2015	54.9%	2.6%	59.4%	1.4%	66.6%	0.2%	65.0%	0.1%
	2012-2016	55.9%	2.7%	61.7%	1.4%	66.2%	0.2%	64.6%	0.1%
	2013-2017	58.1%	2.6%	64.6%	1.3%	66.0%	0.1%	64.4%	0.1%
	2014-2018	61.5%	2.6%	65.4%	1.4%	65.9%	0.2%	64.3%	0.1%
	2015-2019	61.2%	2.7%	65.3%	1.4%	65.7%	0.2%	64.1%	0.0%
	2016-2020	64.8%	3.9%	66.0%	1.7%	65.2%	0.2%	63.6%	0.1%
Percent of households heating home with other fossil fuels (B25040)	2009-2013	1.2%	0.6%	1.0%	0.3%	1.2%	0.0%	3.5%	0.0%
	2010-2014	1.0%	0.6%	0.9%	0.3%	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%
	2012-2016	0.9%	0.5%	0.8%	0.2%	1.3%	0.0%	3.4%	0.0%
	2013-2017	0.7%	0.5%	0.8%	0.2%	1.4%	0.0%	3.5%	0.0%
	2014-2018	0.9%	0.5%	0.7%	0.2%	1.4%	0.0%	3.5%	0.0%
	2015-2019	0.7%	0.5%	0.7%	0.2%	1.4%	0.1%	3.5%	0.0%
	2016-2020	0.3%	0.3%	0.7%	0.2%	1.6%	0.0%	3.6%	0.0%

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

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of houses with no fuel used (B25040)	2009-2013	18.4%	2.3%	12.2%	1.0%	5.6%	0.1%	2.9%	0.0%
	2010-2014	20.5%	2.2%	13.6%	1.0%	5.8%	0.1%	3.0%	0.0%
	2011-2015	22.1%	2.3%	14.1%	1.0%	5.9%	0.1%	3.2%	0.0%
	2012-2016	21.4%	2.3%	14.4%	1.0%	6.1%	0.1%	3.3%	0.0%
	2013-2017	19.0%	2.2%	13.9%	0.9%	6.2%	0.1%	3.4%	0.0%
	2014-2018	15.1%	2.0%	14.0%	1.0%	6.2%	0.1%	3.4%	0.0%
	2015-2019	14.2%	2.0%	13.6%	1.0%	6.1%	0.1%	3.3%	0.0%
	2016-2020	12.4%	2.2%	13.0%	1.1%	5.8%	0.1%	3.2%	0.0%

Table A6.2.2: Solar PV Systems per 1,000 Households¹⁰

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

¹⁰Solar 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 6.4: Environment

Table A6.4.1: Land-Cover Indicators¹²

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

¹² Land-cover indicators were derived from satellite imagery maintained by the National Agriculture Imagery Program.

Appendix 6.5: Health

Table A6.5.1: 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)	2009-2013	70.2%	1.8%	65.6%	1.1%	77.8%	0.2%	82.2%	0.1%
	2010-2014	71.5%	1.5%	67.1%	1.1%	79.1%	0.1%	83.3%	0.1%
	2011-2015	75.1%	1.3%	71.1%	1.0%	81.6%	0.1%	85.3%	0.1%
	2012-2016	77.5%	1.3%	75.2%	1.0%	84.1%	0.1%	87.4%	0.1%
	2013-2017	80.6%	1.5%	79.1%	1.0%	86.7%	0.1%	89.5%	0.1%
	2014-2018	84.1%	1.3%	82.6%	0.9%	89.2%	0.1%	91.5%	0.1%
	2015-2019	86.0%	1.2%	84.4%	0.9%	90.4%	0.1%	92.5%	0.1%
	2016-2020	87.9%	1.7%	85.1%	0.9%	90.8%	0.1%	92.8%	0.1%
Percent with private health insurance coverage (B27002)	2009-2013	21.8%	1.9%	24.4%	1.0%	54.3%	0.2%	61.0%	0.2%
	2010-2014	20.2%	1.8%	23.6%	1.0%	54.1%	0.2%	60.8%	0.2%
	2011-2015	21.2%	1.9%	25.4%	1.0%	55.0%	0.2%	61.2%	0.2%
	2012-2016	22.3%	1.8%	26.9%	1.0%	55.8%	0.2%	61.8%	0.2%
	2013-2017	22.4%	1.8%	28.3%	1.1%	56.8%	0.2%	62.6%	0.2%
	2014-2018	25.4%	2.0%	29.5%	1.1%	57.9%	0.2%	63.4%	0.2%
	2015-2019	27.6%	2.0%	30.6%	1.2%	58.4%	0.3%	63.8%	0.2%
	2016-2020	25.6%	2.2%	29.5%	1.1%	58.8%	0.2%	64.3%	0.2%
Percent with public health insurance coverage (B27003)	2009-2013	51.3%	2.3%	44.8%	1.3%	29.7%	0.1%	29.5%	0.1%
	2010-2014	54.7%	2.1%	46.8%	1.3%	31.1%	0.1%	30.8%	0.1%
	2011-2015	57.4%	1.9%	49.5%	1.2%	32.9%	0.1%	32.6%	0.1%
	2012-2016	58.7%	1.9%	52.3%	1.3%	34.7%	0.2%	34.3%	0.1%
	2013-2017	61.4%	2.1%	54.7%	1.3%	36.4%	0.1%	35.8%	0.1%
	2014-2018	61.9%	2.3%	56.9%	1.3%	38.0%	0.1%	37.2%	0.1%
	2015-2019	61.6%	2.2%	57.4%	1.3%	38.8%	0.2%	38.0%	0.1%
	2016-2020	65.9%	3.5%	58.9%	1.7%	39.0%	0.1%	38.0%	0.1%

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

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

Indicator	Dataset Year	Gross Number of Collisions				Normalized by Street Mile			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft						
Bicycle Collision at Injury Level 1: Fatal	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	2020	5	6	11	15	89.7	107.6	47.2	47.2
	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	7	8	0	30.0	17.9	34.3
	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	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	49	40	89.7	143.4	210.0	171.5
	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 OpenStreets-Map (OSM) and totaled 129 miles for the project area and 470 miles for the control tracts. Vehicle collisions involving bicycles and pedestrians are not mutually exclusive because some accidents may involve both modes.

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Indicator	Dataset Year	Gross Number of Collisions				Normalized by Street Mile			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft						
Bicycle Collision at Injury Level 4: Complaint of Pain	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	62	72	215.2	251.0	265.8	308.6
	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	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	8	35.9	35.9	25.7	34.3
	2015	1	1	7	9	17.9	17.9	30.0	38.6
	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	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
Pedestrian Collision at Injury Level 3: Visible Injury	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	23	77	92	340.7	412.4	330.1	394.4
	2015	13	17	54	76	233.1	304.8	231.5	325.8
	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

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						
Pedestrian Collision at Injury Level 4: Complaint of Pain	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	104	143.4	269.0	347.2	445.8
	2015	24	29	74	85	430.3	520.0	317.2	364.4
	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	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 Collision at Injury Level 2: Severe Injury	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	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	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

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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						
Combined Bicycle and Pedestrian at Injury Level 4: Complaint of Pain	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	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 6.6: Housing

Table A6.6.1: 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)	2009-2013	67.3%	2.6%	70.6%	1.3%	53.1%	0.2%	44.7%	0.1%
	2010-2014	66.5%	2.3%	72.1%	1.3%	53.6%	0.1%	45.2%	0.1%
	2011-2015	66.5%	2.2%	72.6%	1.2%	54.0%	0.2%	45.7%	0.1%
	2012-2016	64.5%	2.4%	72.8%	1.2%	54.3%	0.2%	45.9%	0.2%
	2013-2017	65.3%	2.5%	72.8%	1.2%	54.1%	0.2%	45.5%	0.1%
	2014-2018	64.7%	2.4%	72.5%	1.2%	54.2%	0.2%	45.4%	0.1%
	2015-2019	65.1%	2.4%	71.5%	1.2%	54.2%	0.2%	45.2%	0.1%
	2016-2020	68.3%	2.8%	72.6%	1.7%	54.0%	0.2%	44.7%	0.1%
Percent homeowners (B25003)	2009-2013	32.7%	2.3%	29.4%	1.2%	46.9%	0.3%	55.3%	0.3%
	2010-2014	33.5%	2.3%	27.9%	1.2%	46.4%	0.3%	54.8%	0.3%
	2011-2015	33.5%	2.1%	27.4%	1.1%	46.0%	0.3%	54.3%	0.3%
	2012-2016	35.5%	2.4%	27.2%	1.1%	45.7%	0.3%	54.1%	0.3%
	2013-2017	34.7%	2.4%	27.2%	1.1%	45.9%	0.3%	54.5%	0.3%
	2014-2018	35.3%	2.2%	27.5%	1.1%	45.8%	0.3%	54.6%	0.3%
	2015-2019	34.9%	2.2%	28.5%	1.2%	45.8%	0.3%	54.8%	0.3%
	2016-2020	31.7%	3.6%	27.4%	1.2%	46.0%	0.3%	55.3%	0.3%
Percent of households paying ≥30% of income on rent (B25070)	2009-2013	67.9%	4.4%	68.6%	2.3%	56.4%	0.3%	54.1%	0.2%
	2010-2014	69.4%	4.4%	70.1%	2.2%	57.0%	0.3%	54.2%	0.1%
	2011-2015	66.6%	4.1%	69.9%	2.1%	56.9%	0.3%	54.0%	0.1%
	2012-2016	67.0%	4.3%	70.4%	2.1%	56.5%	0.3%	53.6%	0.1%
	2013-2017	69.0%	4.4%	68.1%	2.2%	56.1%	0.3%	53.1%	0.1%
	2014-2018	68.1%	4.6%	65.9%	2.2%	55.5%	0.3%	52.6%	0.2%
	2015-2019	65.4%	4.9%	64.6%	2.3%	54.9%	0.3%	52.1%	0.2%
	2016-2020	58.9%	5.4%	63.2%	2.4%	54.4%	0.4%	51.5%	0.2%
Percent of households paying ≥50% of income on rent (B25070)	2009-2013	41.1%	3.5%	43.5%	1.8%	30.7%	0.2%	28.3%	0.1%
	2010-2014	41.2%	3.3%	44.9%	1.8%	31.0%	0.2%	28.5%	0.1%
	2011-2015	41.5%	3.1%	44.7%	1.7%	30.9%	0.2%	28.2%	0.2%
	2012-2016	40.7%	3.3%	44.8%	1.7%	30.6%	0.2%	27.9%	0.1%
	2013-2017	40.3%	3.4%	43.4%	1.8%	30.1%	0.3%	27.4%	0.1%
	2014-2018	40.7%	3.5%	40.8%	1.7%	29.5%	0.2%	27.0%	0.2%
	2015-2019	37.4%	3.6%	38.6%	1.8%	29.0%	0.2%	26.6%	0.2%
	2016-2020	34.4%	4.4%	37.7%	2.0%	28.8%	0.3%	26.2%	0.2%

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

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of households paying ≥30% of income on mortgage (B25091)	2009-2013	34.7%	4.9%	30.9%	2.8%	30.3%	0.2%	29.7%	0.1%
	2010-2014	32.8%	4.8%	31.5%	2.7%	29.4%	0.2%	28.5%	0.0%
	2011-2015	29.4%	4.4%	31.1%	2.6%	28.5%	0.2%	27.4%	0.2%
	2012-2016	29.6%	4.3%	32.5%	2.7%	27.5%	0.2%	26.2%	0.2%
	2013-2017	31.8%	4.7%	31.5%	2.6%	26.5%	0.2%	25.3%	0.0%
	2014-2018	33.2%	4.8%	31.5%	2.7%	26.0%	0.2%	24.7%	0.0%
	2015-2019	32.3%	4.7%	31.0%	2.8%	25.7%	0.2%	24.4%	0.0%
	2016-2020	49.7%	9.6%	42.0%	3.5%	16.7%	0.2%	15.4%	0.1%
Percent of households paying ≥50% of income on mortgage (B25091)	2009-2013	12.4%	3.0%	11.8%	1.8%	7.9%	0.1%	7.2%	0.1%
	2010-2014	10.9%	2.9%	10.6%	1.7%	7.4%	0.1%	6.7%	0.0%
	2011-2015	8.5%	2.3%	9.8%	1.6%	7.0%	0.1%	6.2%	0.0%
	2012-2016	9.3%	2.4%	9.7%	1.6%	6.5%	0.1%	5.8%	0.1%
	2013-2017	10.3%	2.9%	9.0%	1.5%	6.3%	0.1%	5.5%	0.1%
	2014-2018	9.8%	2.9%	9.3%	1.6%	6.0%	0.1%	5.4%	0.1%
	2015-2019	8.2%	2.6%	9.0%	1.5%	5.9%	0.1%	5.3%	0.0%
	2016-2020	8.5%	3.5%	8.9%	1.9%	5.8%	0.2%	5.2%	0.1%
Percent of households with more than one occupant per room (B25014)	2009-2013	28.2%	2.9%	26.7%	1.5%	12.1%	0.1%	8.2%	0.1%
	2010-2014	25.9%	2.7%	26.4%	1.4%	12.1%	0.1%	8.2%	0.1%
	2011-2015	23.0%	2.5%	25.3%	1.4%	11.8%	0.1%	8.2%	0.1%
	2012-2016	21.9%	2.5%	23.9%	1.3%	11.8%	0.1%	8.2%	0.1%
	2013-2017	22.2%	2.5%	23.0%	1.3%	11.7%	0.1%	8.2%	0.1%
	2014-2018	22.0%	2.5%	22.0%	1.3%	11.4%	0.1%	8.2%	0.1%
	2015-2019	21.4%	2.4%	20.7%	1.3%	11.3%	0.1%	8.2%	0.1%
	2016-2020	20.2%	3.0%	22.7%	1.6%	11.2%	0.1%	8.2%	0.1%
Percent of households with more than one occupant per room (renters) (B25014)	2009-2013	20.5%	2.5%	21.2%	1.4%	9.3%	0.1%	6.0%	0.0%
	2010-2014	18.1%	2.2%	21.0%	1.3%	9.3%	0.1%	6.0%	0.0%
	2011-2015	15.5%	2.0%	20.2%	1.2%	9.2%	0.1%	6.0%	0.1%
	2012-2016	13.9%	2.0%	19.1%	1.2%	9.2%	0.1%	6.1%	0.0%
	2013-2017	14.3%	2.0%	18.5%	1.2%	9.1%	0.1%	6.0%	0.1%
	2014-2018	14.2%	2.1%	17.2%	1.1%	8.9%	0.1%	6.0%	0.0%
	2015-2019	13.3%	2.0%	16.1%	1.1%	8.8%	0.1%	6.0%	0.1%
	2016-2020	12.9%	2.7%	17.5%	1.4%	8.6%	0.1%	5.9%	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 (homeowners) (B25014)	2009-2013	7.7%	1.5%	5.5%	0.6%	2.9%	0.1%	2.3%	0.0%
	2010-2014	7.7%	1.5%	5.4%	0.6%	2.8%	0.1%	2.2%	0.0%
	2011-2015	7.5%	1.4%	5.1%	0.6%	2.7%	0.1%	2.2%	0.0%
	2012-2016	8.1%	1.4%	4.8%	0.6%	2.6%	0.0%	2.1%	0.0%
	2013-2017	7.9%	1.4%	4.5%	0.6%	2.6%	0.0%	2.2%	0.0%
	2014-2018	7.8%	1.4%	4.7%	0.6%	2.6%	0.0%	2.2%	0.0%
	2015-2019	8.0%	1.4%	4.6%	0.6%	2.5%	0.1%	2.2%	0.0%
	2016-2020	7.3%	1.6%	5.1%	0.7%	2.6%	0.1%	2.3%	0.3%
Percent of households in same house 1 year ago (renters) (B07013)	2009-2013	52.6%	3.0%	56.2%	1.5%	40.2%	0.2%	32.7%	0.2%
	2010-2014	52.4%	2.9%	57.3%	1.6%	41.0%	0.2%	33.7%	0.2%
	2011-2015	53.8%	2.9%	58.4%	1.4%	42.0%	0.3%	34.7%	0.2%
	2012-2016	53.8%	2.9%	59.2%	1.5%	42.9%	0.3%	35.4%	0.2%
	2013-2017	56.0%	3.1%	60.2%	1.5%	43.4%	0.3%	35.6%	0.2%
	2014-2018	56.0%	2.8%	61.2%	1.5%	43.9%	0.2%	35.8%	0.2%
	2015-2019	56.9%	2.9%	62.1%	1.5%	44.2%	0.3%	35.9%	0.2%
	2016-2020	58.4%	2.4%	64.0%	2.0%	44.2%	0.3%	35.6%	0.2%
Percent of households in same house 1 year ago (homeowners) (B070103)	2009-2013	33.7%	3.0%	31.6%	1.6%	46.9%	0.3%	52.3%	0.3%
	2010-2014	33.8%	2.9%	30.5%	1.6%	46.3%	0.3%	51.7%	0.3%
	2011-2015	34.1%	2.7%	30.2%	1.6%	45.9%	0.3%	51.3%	0.3%
	2012-2016	36.5%	3.0%	30.4%	1.5%	45.6%	0.3%	51.0%	0.3%
	2013-2017	36.1%	3.2%	30.0%	1.5%	45.9%	0.3%	51.4%	0.2%
	2014-2018	37.8%	3.0%	30.4%	1.4%	45.9%	0.3%	51.6%	0.2%
	2015-2019	38.2%	2.7%	31.2%	1.5%	46.1%	0.3%	52.0%	0.3%
	2016-2020	36.2%	4.5%	29.9%	1.6%	46.5%	0.3%	52.7%	0.2%
Percent of households in same house 1 year ago (w/ income of ≥ \$75k) (B07010)	2009-2013	1.2%	0.4%	1.3%	0.2%	10.5%	N/A	12.1%	0.1%
	2010-2014	1.2%	0.4%	1.3%	0.2%	10.6%	N/A	12.3%	0.1%
	2011-2015	1.2%	0.4%	1.4%	0.2%	10.7%	0.1%	12.4%	0.1%
	2012-2016	1.2%	0.4%	1.6%	0.2%	11.2%	0.1%	13.0%	0.1%
	2013-2017	0.9%	0.3%	1.8%	0.2%	11.9%	0.1%	13.8%	0.1%
	2014-2018	1.2%	0.4%	2.2%	0.3%	12.8%	0.1%	14.8%	0.1%
	2015-2019	1.6%	0.5%	2.7%	0.3%	13.8%	0.1%	16.0%	0.1%
	2016-2020	2.4%	0.8%	3.3%	0.4%	14.6%	0.1%	16.8%	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 in same house 1 year ago (w/ income of <\$75k) (B07010)	2009-2013	84.7%	1.4%	86.7%	0.8%	75.9%	N/A	72.2%	0.1%
	2010-2014	84.6%	1.3%	86.8%	0.9%	76.1%	N/A	72.5%	0.1%
	2011-2015	86.4%	1.1%	87.2%	0.9%	76.5%	0.2%	72.9%	0.1%
	2012-2016	88.4%	0.9%	87.6%	0.9%	76.6%	0.2%	72.8%	0.1%
	2013-2017	90.5%	1.3%	88.3%	1.0%	76.5%	0.2%	72.4%	0.1%
	2014-2018	92.3%	1.2%	88.8%	1.0%	76.2%	0.2%	71.8%	0.1%
	2015-2019	93.1%	1.5%	90.0%	1.0%	75.6%	0.2%	71.0%	0.1%
	2016-2020	92.7%	8.7%	90.2%	3.5%	75.3%	0.2%	70.6%	0.1%
Percent of housing units for rent that are vacant (B25002 and B25004)	2009-2013	3.7%	1.1%	3.5%	0.6%	2.3%	0.1%	2.1%	0.1%
	2010-2014	3.4%	1.0%	3.6%	0.5%	2.2%	0.1%	2.0%	0.0%
	2011-2015	2.9%	1.0%	3.1%	0.5%	1.9%	0.1%	1.8%	0.0%
	2012-2016	1.8%	0.7%	2.5%	0.4%	1.8%	0.1%	1.7%	0.0%
	2013-2017	1.3%	0.6%	2.1%	0.4%	1.7%	0.1%	1.6%	0.0%
	2014-2018	1.1%	0.6%	1.9%	0.4%	1.7%	0.1%	1.5%	0.0%
	2015-2019	1.1%	0.6%	1.7%	0.4%	1.8%	0.1%	1.6%	0.0%
	2016-2020	0.5%	0.5%	1.9%	0.4%	1.9%	0.1%	1.6%	0.0%
Percent of housing units for sale that are vacant (B25002 and B25004)	2009-2013	1.5%	0.7%	0.7%	0.3%	0.7%	0.0%	0.9%	0.0%
	2010-2014	1.2%	0.6%	0.9%	0.3%	0.6%	0.0%	0.8%	0.0%
	2011-2015	0.9%	0.5%	0.6%	0.2%	0.6%	0.0%	0.7%	0.0%
	2012-2016	0.6%	0.4%	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%
	2014-2018	0.7%	0.5%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2015-2019	0.4%	0.4%	0.4%	0.2%	0.5%	0.0%	0.6%	0.0%
	2016-2020	0.0%	0.2%	0.4%	0.2%	0.4%	0.0%	0.5%	0.0%

Appendix 6.7: Transportation

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

	Time Period (ACS 5-year sample)	Estimate 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)	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2011-2015	N/A	N/A	N/A	N/A	90.3%	0.3%	92.3%	0.1%
	2012-2016	N/A	N/A	N/A	N/A	90.5%	0.2%	92.4%	0.1%
	2013-2017	N/A	N/A	N/A	N/A	90.8%	0.3%	92.6%	0.1%
	2014-2018	N/A	N/A	N/A	N/A	91.0%	0.3%	92.8%	0.1%
	2015-2019	N/A	N/A	N/A	N/A	91.2%	0.3%	92.9%	0.1%
	2016-2020	N/A	N/A	N/A	N/A	91.2%	0.3%	93.0%	0.1%
Percent of workers commuting to work alone by car (B08301)	2009-2013	64.3%	2.9%	61.4%	1.3%	72.4%	0.1%	73.2%	0.1%
	2010-2014	63.6%	2.7%	61.0%	1.4%	72.6%	0.1%	73.2%	0.1%
	2011-2015	63.5%	2.7%	63.7%	1.3%	73.0%	0.2%	73.4%	0.1%
	2012-2016	65.2%	2.0%	64.9%	1.3%	73.3%	0.1%	73.5%	0.0%
	2013-2017	67.5%	2.2%	66.8%	1.4%	73.7%	0.2%	73.6%	0.1%
	2014-2018	69.2%	2.0%	69.5%	1.3%	73.9%	0.2%	73.7%	0.0%
	2015-2019	70.9%	1.8%	69.5%	1.2%	74.0%	0.2%	73.7%	0.0%
	2016-2020	71.4%	3.0%	70.0%	1.6%	72.1%	0.2%	72.1%	0.1%
Percent of workers commuting to work by carpool (B08301)	2009-2013	15.5%	2.3%	13.6%	1.2%	10.6%	0.1%	11.3%	0.1%
	2010-2014	16.3%	2.4%	12.8%	1.1%	10.3%	0.1%	11.1%	0.1%
	2011-2015	16.0%	2.3%	11.9%	1.0%	9.9%	0.1%	10.8%	0.1%
	2012-2016	15.2%	2.3%	12.3%	1.0%	9.8%	0.1%	10.6%	0.1%
	2013-2017	13.4%	2.0%	11.1%	0.9%	9.6%	0.1%	10.4%	0.1%
	2014-2018	12.8%	2.0%	10.5%	0.9%	9.5%	0.1%	10.3%	0.1%
	2015-2019	11.8%	1.7%	10.4%	0.9%	9.5%	0.1%	10.1%	0.1%
	2016-2020	11.2%	2.2%	10.1%	0.9%	9.5%	0.1%	10.0%	0.1%
Percent of workers commuting to work by public transit (B08301)	2009-2013	12.1%	1.8%	17.8%	1.2%	7.1%	0.1%	5.2%	0.0%
	2010-2014	12.4%	1.9%	18.5%	1.2%	7.0%	0.1%	5.2%	0.0%
	2011-2015	13.7%	1.9%	17.0%	1.2%	6.8%	0.1%	5.2%	0.0%
	2012-2016	13.9%	2.1%	15.6%	1.1%	6.5%	0.1%	5.2%	0.0%
	2013-2017	13.5%	2.2%	14.6%	1.1%	6.3%	0.1%	5.2%	0.0%
	2014-2018	13.2%	2.4%	12.8%	0.9%	6.0%	0.1%	5.1%	0.0%
	2015-2019	12.0%	2.2%	13.2%	1.1%	5.8%	0.1%	5.1%	0.0%
	2016-2020	12.0%	2.6%	12.1%	1.0%	5.4%	0.1%	4.6%	0.0%

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

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Los Angeles County	MOE	Estimate for California	MOE
Percent of workers commuting to work by foot (B08301)	2009-2013	1.9%	0.8%	2.2%	0.4%	2.9%	0.1%	2.7%	0.0%
	2010-2014	2.2%	0.8%	2.6%	0.5%	2.9%	0.1%	2.7%	0.0%
	2011-2015	1.8%	0.7%	2.9%	0.5%	2.8%	0.1%	2.7%	0.0%
	2012-2016	1.5%	0.6%	2.5%	0.4%	2.8%	0.1%	2.7%	0.0%
	2013-2017	1.2%	0.6%	2.4%	0.5%	2.7%	0.1%	2.7%	0.0%
	2014-2018	0.8%	0.4%	1.9%	0.4%	2.7%	0.1%	2.7%	0.0%
	2015-2019	0.8%	0.5%	1.4%	0.3%	2.7%	0.1%	2.6%	0.0%
	2016-2020	0.7%	0.5%	1.2%	0.3%	2.6%	0.1%	2.5%	0.0%
Percent of workers commuting to work by bike (B08301)	2009-2013	0.2%	0.3%	0.8%	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%
	2011-2015	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%
	2013-2017	0.4%	0.3%	1.0%	0.3%	0.9%	0.0%	1.1%	0.0%
	2014-2018	0.3%	0.2%	0.8%	0.2%	0.8%	0.0%	1.0%	0.0%
	2015-2019	0.6%	0.4%	0.7%	0.2%	0.8%	0.0%	1.0%	0.0%
	2016-2020	0.5%	0.5%	0.5%	0.2%	0.7%	0.0%	0.8%	0.0%
Percent of workers commuting to work by other modes: taxicab, motorcycle, and other (B08301)	2009-2013	1.5%	0.7%	1.1%	0.3%	1.2%	0.0%	1.3%	0.0%
	2010-2014	1.5%	0.7%	1.2%	0.3%	1.3%	0.0%	1.3%	0.0%
	2011-2015	0.7%	0.4%	0.9%	0.3%	1.4%	0.0%	1.4%	0.0%
	2012-2016	0.6%	0.4%	0.9%	0.3%	1.4%	0.0%	1.4%	0.0%
	2013-2017	0.7%	0.4%	0.9%	0.3%	1.5%	0.0%	1.5%	0.0%
	2014-2018	0.6%	0.4%	1.5%	0.3%	1.6%	0.0%	1.6%	0.0%
	2015-2019	1.1%	0.7%	1.8%	0.4%	1.6%	0.0%	1.6%	0.0%
	2016-2020	1.6%	1.1%	2.4%	0.5%	1.7%	0.1%	1.6%	0.0%

Table A6.7.2: Plug-in Electric Vehicle (PEV) Registrations¹³

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)	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)	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	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	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

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

Table A6.7.3: Publicly Available Charging Infrastructure¹⁴

Indicator	Dataset Year	Gross Number			Normalized per 10,000 Residents		
		TCC Census Tracts	Control Census Tracts	Los Angeles County	TCC Census Tracts	Control Census Tracts	Los Angeles County
Level 2 Stations	2021	6	23	3,073	1.6	1.4	3.1
	2020	6	21	1,622	1.0	1.2	1.6
	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	0.01	0.5
DC Fast-Charging Stations	2021	1	1	250	0.3	<0.1	0.3
	2020	0	1	199	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

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

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