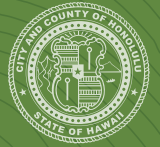


CITY & COUNTY OF HONOLULU

Annual Sustainability Report

2021





Contours of Change

The lines that animate the 2021 Annual Sustainability Report are inspired by topographic map lines that bring a third dimension to the roots of our culture in Hawai‘i – our land and ocean. The concentric circles also evoke how change happens through a “ripple effect.” The action of just one individual will impact others, and when we work together, change can occur across our island.

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Though looking back on the year that was 2020 can be painful and challenging, reflection brings awareness and lessons. As community suffered life and economic impacts of COVID-19, there was an emergence of visions to not just return to “normal,” but to set new systems, paths, and values to launch ourselves into improved future conditions.



Sustainability and resilience are not about status quo. Proactively and intentionally addressing climate resilience and equity is our path forward. It requires setting the expectations, executing on the work, and evaluating those

efforts along the way—that is the reason and purpose of the Annual Sustainability Report, to look back to guide how to take the steps ahead.

In 2020 our community and your City government were forced to contend with parallel health and economic crises, all while increasing efficiency and effectiveness of City services and keeping a close eye on other compounding challenges, such as climate impacts. Several highlights include:

- Establishing both climate action and adaptation targets and policies, and committing to the advancement of equitable outcomes for community (Ordinance 20-47).
- Exceeding 30% renewable portfolio standard, including nearly 6,000 new private rooftop solar systems.
- Streamlining permitting procedures for residential clean energy projects and electric vehicle (EV) charging equipment to reduce costs and increase access to renewable energy for more residents (Ordinance 20-44).

- Expanding access to energy efficiency improvements, solar power, and EVs, including a new requirement for residential and commercial buildings to ensure a percentage of all new parking stalls are EV-ready (Ordinance 20-10).
- Right-sizing parking requirements and expanding access for non-vehicle modes of travel to increase choice and flexibility for building and provide savings for residents (Ordinance 20-41).
- Increasing capacity to effectuate economic recovery and long-term economic diversification through the establishment of the Office of Economic Revitalization (Resolution 20-197).
- Committing to equity and social justice for frontline communities through City operations and economic recovery programs (Resolution 20-206).

Now in this new year, the new City Administration is committed to transparency, fairness, informed decision making, and accountability in everything we do. As emphasized in Mayor Blangiardi's Roadmap to Recovery, “Our future depends on our willingness and our ability to work together in shared purpose.” We are committed to defining those goals and measuring our progress towards them.

Imua!

Matthew J. Gonser
Chief Resilience Officer
& Executive Director
City and County of Honolulu
Office of Climate Change,
Sustainability and Resiliency

Reporting on Our Progress

The City’s commitment to informed decision-making and accountability is backed by the mandate from O’ahu residents in Charter Section 6-107 and Ordinance 20-47 to produce an Annual Sustainability Report that measures overall performance in meeting the City’s sustainability objectives and targets.

With this 2021 Annual Sustainability Report, we reflect back on the progress achieved in 2020—even in the face of challenge and change—and continue to ensure our local government is transparent in our movements towards tackling the issues of

climate change, resilience and equity; increasing sustainability in City operations; and working with communities to become more resilient.

These measures are the foundation for informed decision-making. As Mayor Blangiardi, the new administration, and the new City Council reflect on the year that was, all—along with community members—look to the horizon on how to build trust and openness, and affect meaningful sustainability and equity progress.

2020 World Wetlands Day Community Workday at Niuhelewai, Lo'i Kalo Mini Park, February 2, 2020



Performance Indicators

The Annual Sustainability Report gathers in one place the City’s sustainability objectives and tracks specific indicators from a range of climate change, sustainability, and resilience activities taking place across O’ahu to measure performance in meeting our commitments. The process to establish the content of the report included:

- Cataloging existing sustainability and climate objectives and targets within the City;
- Determining data availability and baselines to measure targets;
- Selecting specific measurable indicators to track progress towards those existing targets.

Some key performance indicators do not yet have associated targets by which we track progress, but rather help us to better understand the social implications of our progress towards centering

equitable outcomes for our communities. The “Equity Indicators” throughout this report highlight additional perspectives for consideration when evaluating traditional performance measures to better understand who is included in reaching our sustainability goals, and ultimately using these data for more informed decision-making.

We have attempted to track data by calendar year (January 1-December 31). However, in some cases, the data reflects the City’s fiscal year (July 1-June 30) due to several data sets’ availability on a fiscal year schedule. Notations are made wherever data is measured by fiscal calendar.

In some cases, the availability of data was impacted by the COVID-19 pandemic, and the most recently available data was reported in those instances, or re-reported from the 2020 Annual Sustainability Report.

Charting a Path to Zero Emissions by 2045: Climate Action Plan Community Meeting Emissions Reduction Game.



2020 Overview


Amidst a year of change, COVID-19 was not the only noteworthy event. The City demonstrated incredible progress towards its sustainability, climate, and resiliency goals as the data contained within this report shows. Below provides an overview of both how this report is structured and a snapshot of progress in 2020. Performance indicators in **green** represent

positive trends, and performance indicators in **red** show where there's still room for improvement. Those in **grey** show us where performance has remained stagnant. While this 2021 Annual Sustainability Report may reflect back on an unprecedented year, it also shows us there is much positive change to look toward in moving forward.




SUSTAINABLE CITY OPERATIONS

-  Electricity & Fuel Usage
-  Water Usage
-  Renewable Fleet




CLEAN & AFFORDABLE TRANSPORTATION

-  EVs & Charging
-  Mode Shift & VMT
-  Equity & Affordability

CLIMATE ACTION

-  Renewable Energy
-  Carbon Emissions
-  Equity & Affordability

CLIMATE ADAPTATION & RESILIENCE

-  Tree Planting
-  Water Reuse
-  Water Consumption

SUSTAINABLE WASTE MANAGEMENT

-  Waste Generation
-  Recycling Rates
-  Waste Composition

DISASTER PREPAREDNESS

-  Federal Funding
-  Informed Residents
-  Resilient Infrastructure

Sustainable City Operations

OBJECTIVE: Integrate sustainable and environmental values into City plans, programs and policies to improve environmental performance of City operations and advance sustainability and resilience priorities (Revised Charter of Honolulu Section 6-107).

In support of meeting the Sustainable City Operations objective, Ordinance 20-47, adopted in December 2020, requires the reporting of the City's overall annual energy and water usage. This data provides valuable insight for the City to make informed decisions about opportunities to decrease energy costs and greenhouse gas emissions across its facilities.

› In 2020, the City selected two Energy Service Company (ESCO) partners to assist the City in becoming more energy efficient, while saving taxpayer dollars and boosting clean energy jobs during the COVID-19 economic downturn. Following an audit of City facilities, the ESCOs will identify energy-related improvements and opportunities to increase facility efficiency and install renewable energy and storage,

funded by future energy savings. Across ten evaluated facilities alone, energy conservation measures are projected to yield upwards of \$42 million in energy and operation savings over a 20-year period, meaning over \$2 million in utility bill and taxpayer savings annually.

As reported this year, the City saw a decrease in both energy and fuel usage in Fiscal Year 2020 compared to Fiscal Year 2019. And with projects like the Energy Savings Performance Contracts initiated last year, we can expect to see even more savings on the horizon.

For an even closer look at the City's energy usage, check out the Municipal Operations Energy Dashboard at www.resilientoahu.org/municipal-operations-energy-dashboard.

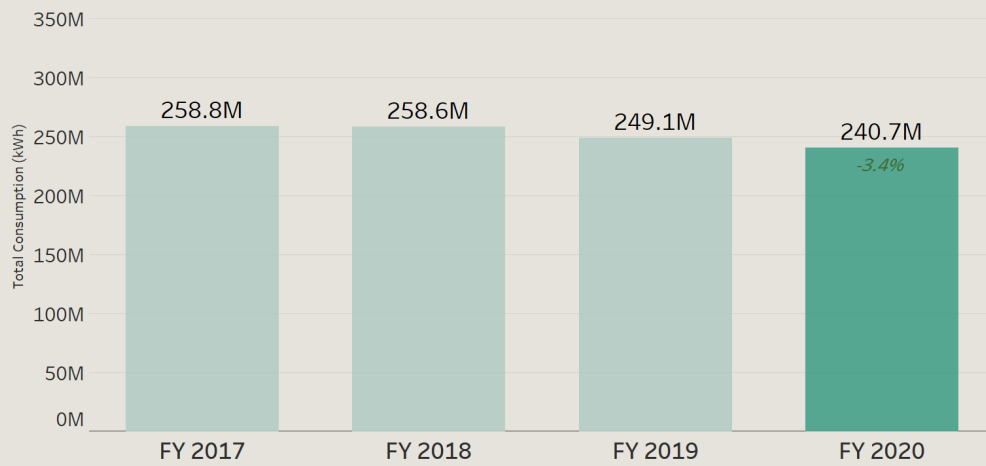
Following the great success and savings accruing from the conversion of the City's 53,000 streetlights in 2019, lighting improvements are now being made in parks island-wide. In 2020, older lighting systems were replaced with new, more efficient LED light fixtures at 'Aiea District Park and Ala Moana Regional Park, improving both efficiency and experience.



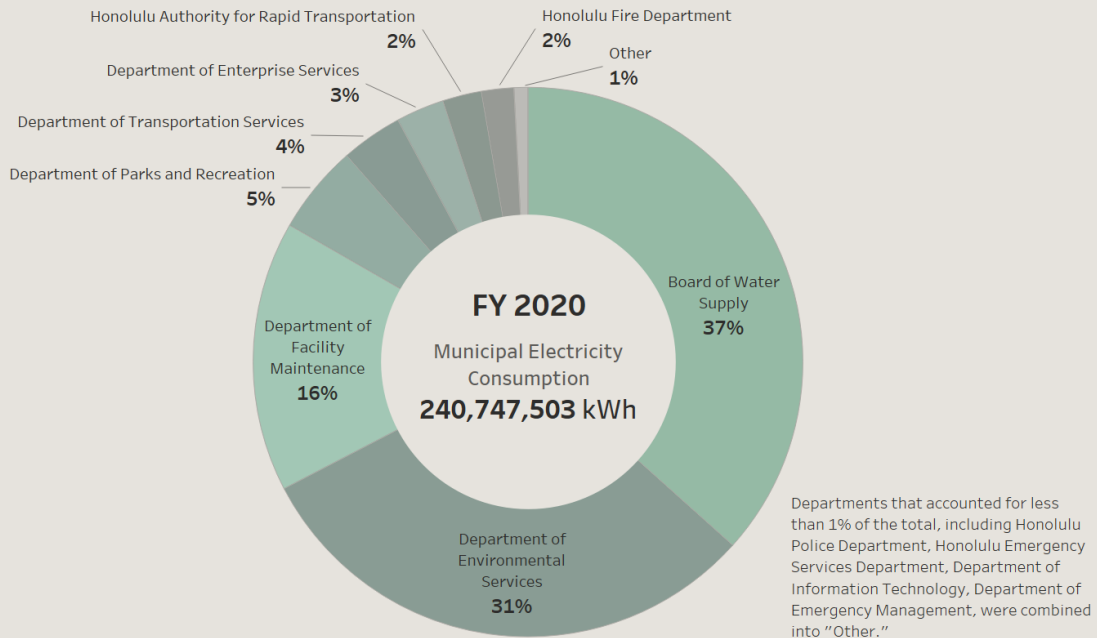
MUNICIPAL ENERGY USAGE

Ordinance 20-47

Municipal Electricity Usage



Municipal Electricity Usage by Department, FY 2020



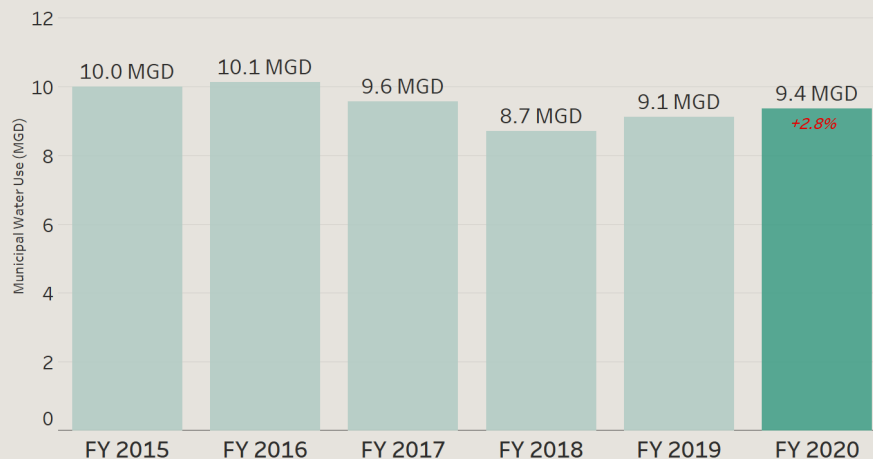
MUNICIPAL FUEL USAGE
Ordinance 20-47

Municipal Fuel Usage by Department, FY 2020

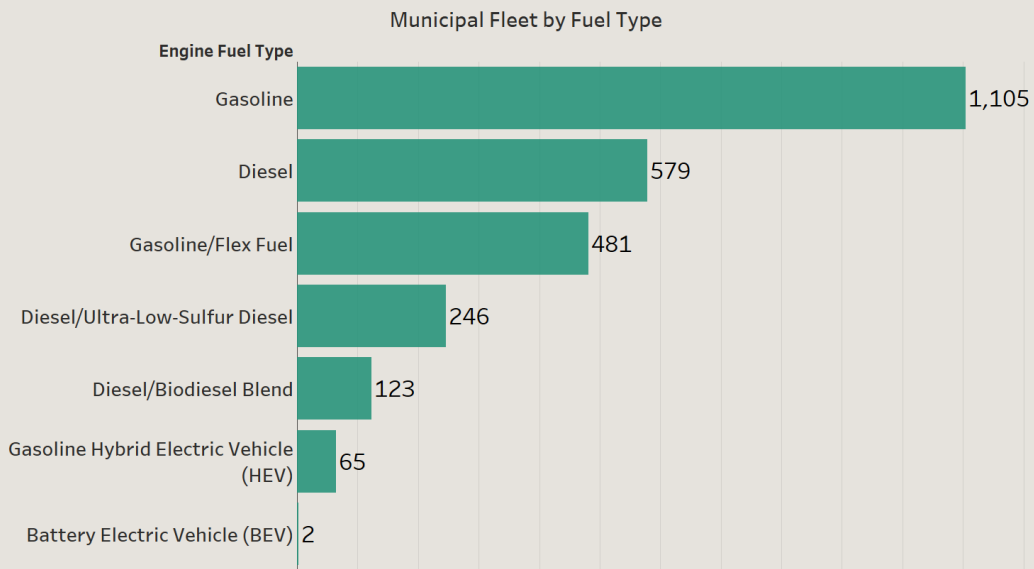
Department	Fuel Type			
	Biodiesel	Diesel	Propane	Unleaded
Board of Water Supply	28,075 gal	52,108 gal		177,152 gal
Department of Enterprise Services		22,627 gal		25,391 gal
Department of Environmental Services		136,260 gal		3,020 gal
Department of Facility Maintenance	1,410,656 gal	45,628 gal	3,365 therms	335,145 gal
Department of Parks and Recreation		3,371 gal	18,390 therms	
Department of Transportation Services		5,225,130 gal		1,213,784 gal
HART		4,066 gal		
Honolulu Emergency Services Department		107,098 gal	95 therms	36,952 gal
Honolulu Fire Department		210,999 gal	19,279 therms	42,815 gal
Honolulu Police Department		5,065 gal	1,102 therms	1,371,481 gal
Grand Total	1,438,731 gal	5,812,352 gal	42,231 therms	3,205,740 gal

MUNICIPAL WATER USAGE
Ordinance 20-47

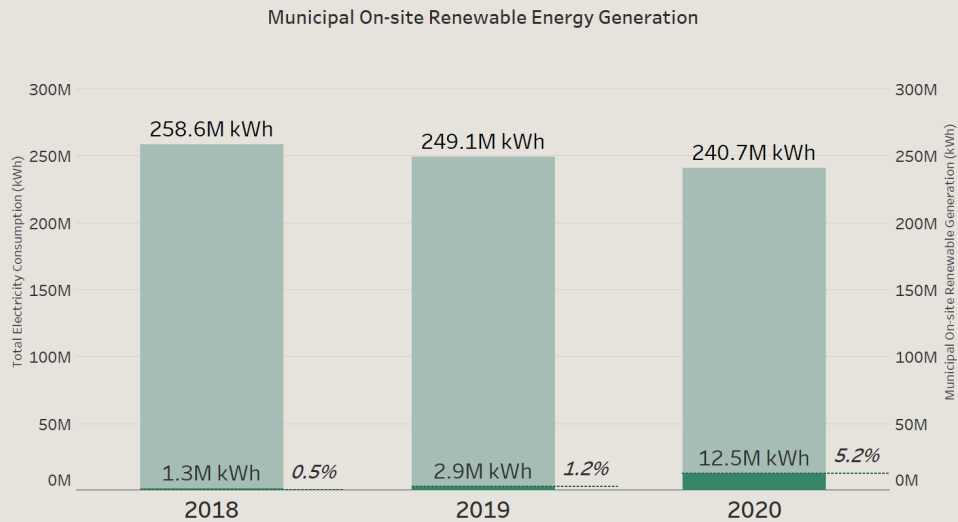
Municipal Water Usage



100% RENEWABLE MUNICIPAL FLEET BY 2035
Ordinance 20-47



INCREASING MUNICIPAL ON-SITE RENEWABLE ENERGY



Clean & Affordable Transportation

OBJECTIVE: Create an integrated multi-modal transportation system which serves all users; moves people and goods safely, efficiently, and at a reasonable cost; and minimizes fossil fuel consumption and greenhouse gas emissions (O’ahu General Plan).

The City continues to plan and deliver projects that promote safety, multimodal travel, and Complete Streets. With the update to the O’ahu Bike Plan in 2019, the City is focused on continuing to build out protected bikeways for all ages and abilities. A one-mile-long protected bike lane on Pensacola Street was installed in September 2020 and became the City’s latest addition to its growing network of dedicated bikeways.

However, O’ahu residents continue to show increasing preference for automobile travel. On average, each O’ahu resident drove 52.6 miles more in 2019 than in

2018. Roughly 67.2% of O’ahu residents commuted alone—a 1.7% increase from the previous year—as the share of people commuting by climate-friendly transportation options fell or remained stagnant.

The future of electric vehicles (EVs) on O’ahu maintains a positive outlook where, in 2020, EV registrations increased by 32.6%. This rate of adoption is only expected to increase, as Ordinance 20-10, signed in June 2020, requires EV-ready infrastructure in new developments to expand EV access and secure a cleaner future.

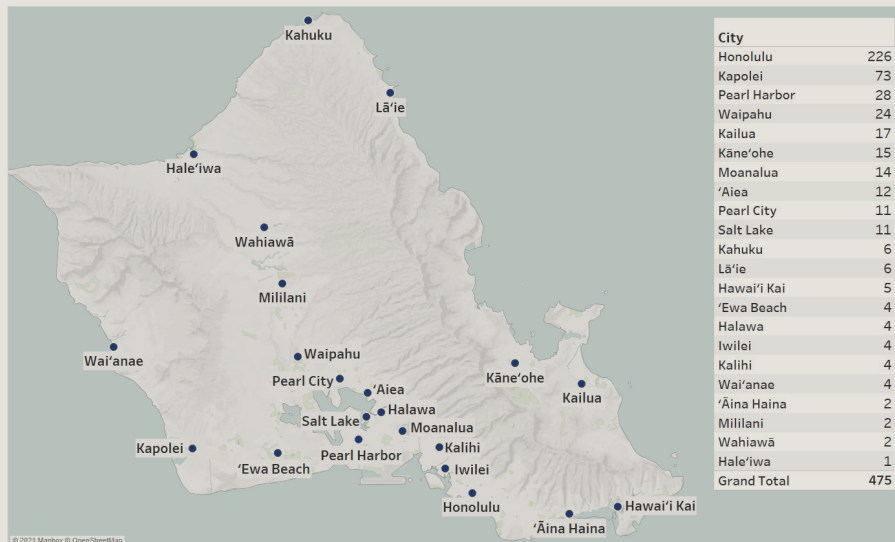


100% RENEWABLE GROUND TRANSPORTATION BY 2045
 Department of Transportation Energy Conservation & Emissions Reduction Plan

Registered Vehicles on O’ahu by Fuel Type, 2020

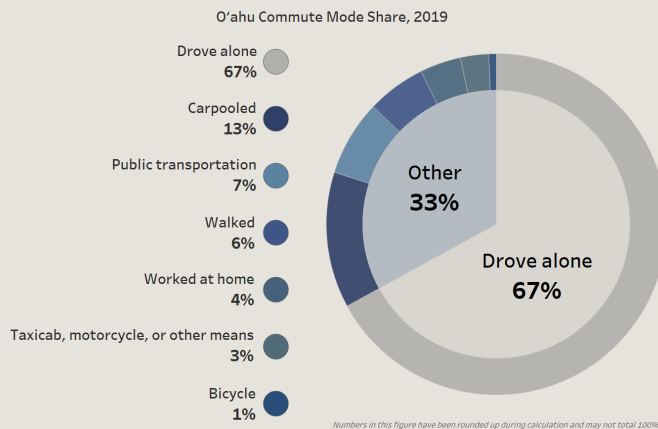
Vehicle Type	Fuel Type	Count
Passenger	Diesel & Gasoline	610,063
	Electric & Hybrid	25,778
Freight	Diesel & Gasoline	45,590
	Electric & Hybrid	81

Installed EV Chargers on O’ahu, 2020



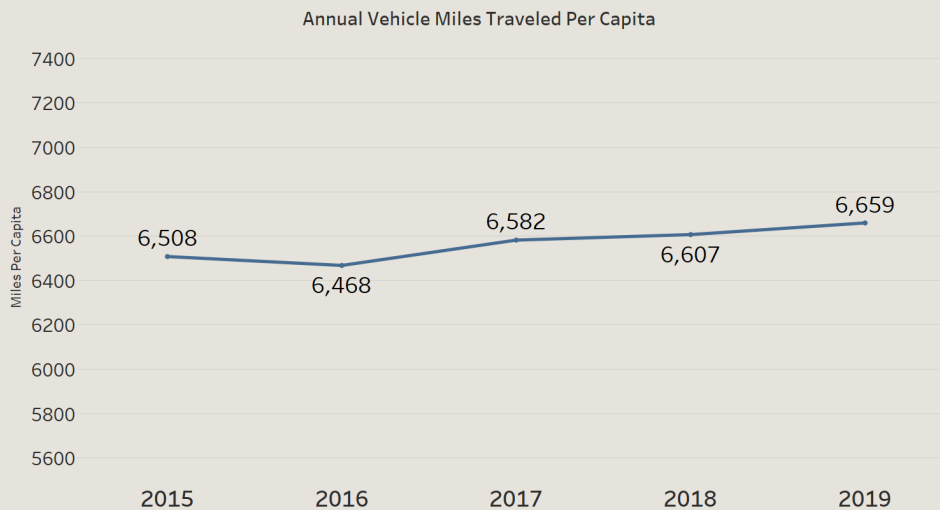
As of December 2020, O’ahu has 475 total EV public and private charging stations. This is an increase of 4% from last year, with 19 new Level 2 charging stations opened in 2020, the majority of which were installed in Urban Honolulu.

DOUBLE THE BICYCLE COMMUTING MODE SHARE BY 2024 (FROM 2015)
O'ahu Bike Plan 2019 Update



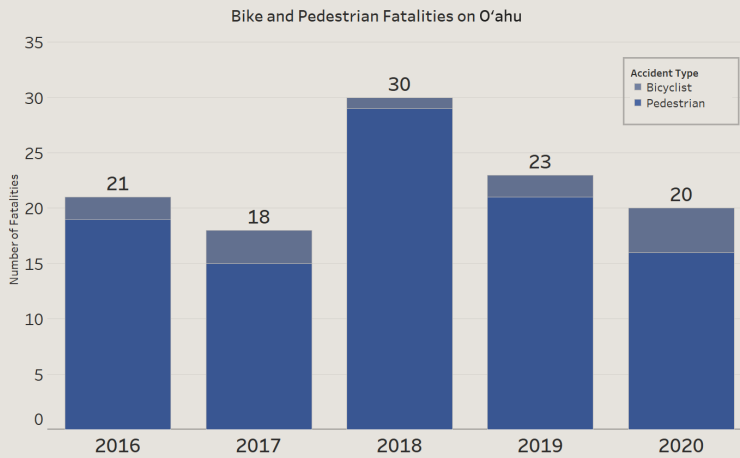
The share of bicycle commuters was 1.2% in 2015, and we'll need to increase to at least a 2.4% share by 2024 to reach our target. We were below the baseline in 2020, but new bicycle infrastructure already installed in 2020—and even more to come in 2021—will make biking an even easier commute option.

TRACKING VEHICLE MILES TRAVELLED



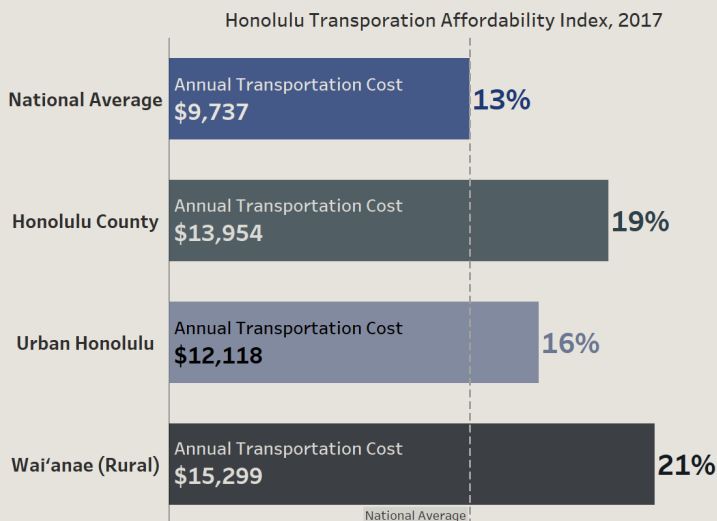
ELIMINATE BICYCLE AND PEDESTRIAN FATALITIES (VISION ZERO) BY 2024

O'ahu Bike Plan 2019 Update & O'ahu Pedestrian Plan



2020 saw a decrease in pedestrian fatalities but an increase in bicyclist fatalities compared to the previous year. Driver care, and safe and adequate infrastructure is necessary to protect and ensure the safety of our most vulnerable roadway users.

EQUITY INDICATOR



As reported by the Center for Neighborhood Technology, Honolulu's Transportation Affordability Index shows what percentage of an average O'ahu household's income is spent on transportation. Transportation is typically a household's second-largest expenditure, and factoring in these expenses may provide a more comprehensive way of thinking about true affordability and costs of living on O'ahu.

Climate Action

OBJECTIVE: Increase energy self-sufficiency and maintain an efficient, reliable, resilient, and cost-efficient energy system that manages our energy resources in line with long-term net-zero carbon emissions goals (O’ahu General Plan).

In 2020, the City found opportunities to align carbon pollution reduction goals with pandemic response and recovery initiatives. While stay-at-home orders were in effect, many City departments were able to pilot new telework practices, reducing congestion and vehicle miles traveled. Additionally, using federal pandemic resources, the City began development of a Healthy & Resilient Buildings Program to put people to work implementing building energy efficiency mechanisms whilst making retrofits to protect occupants from additional health and safety risks, demonstrating how climate action and economic recovery can go hand in hand.

Even amidst COVID-19 response and recovery, the City remained committed to its climate action objectives, adopting Ordinance 20-47, which includes a Climate Action Policy of achieving 100% renewable energy and a net-negative carbon economy on O’ahu by no later than 2045. To ensure we remain on target, the City released a draft of its first-ever Climate Action Plan (CAP) in December, 2020. The CAP charts

the steps along the pathway to net-negative carbon emissions with nine climate strategies and 47 actions to implement within the next five years.

To inform the Climate Action Plan and support transparent reporting of its progress, the City updated its community-wide greenhouse gas (GHG) emissions inventory with available 2019 data. Even with an increase in renewable energy generation, the upward trend of emissions continued in 2019, increasing 5% from the previous year. This rise in emissions is primarily due to air travel from an uptick in visitor arrivals in 2019. While we can expect a large drop off in aviation emissions following the impacts of the COVID-19 pandemic, 2019 emissions trends also show us that ground transportation emissions continue to remain stagnant over time. CAP strategies aim to focus in on critical reductions both in the ground transportation and electricity sectors.

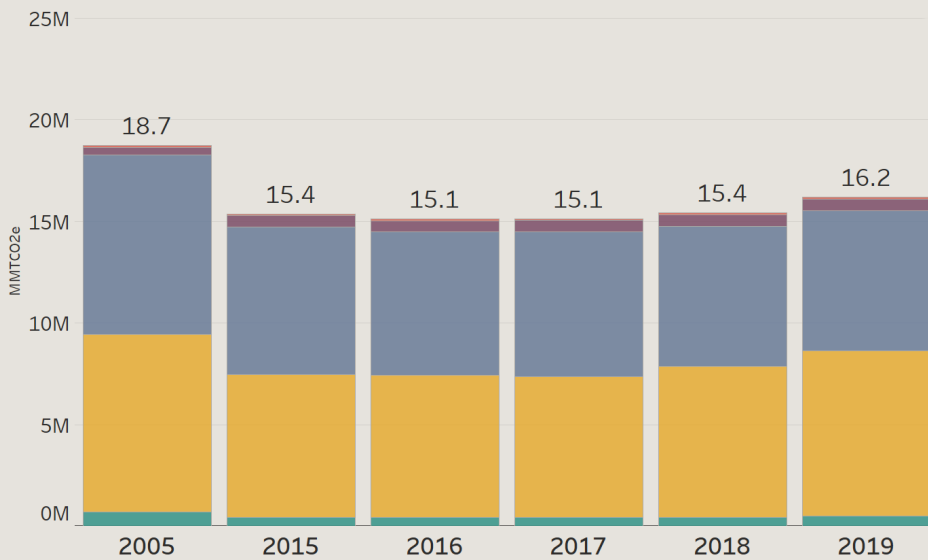
A more detailed analysis of the GHG inventory is available on a dashboard at www.resilientoahu.org/greenhouse-gas-inventory.



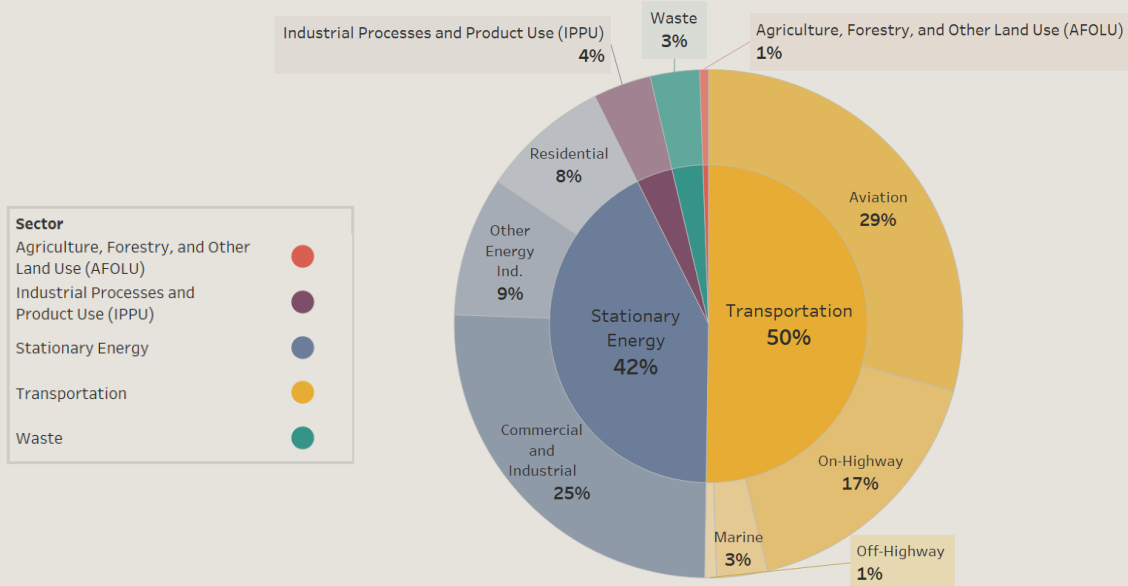
NET-NEGATIVE CARBON ECONOMY BY 2045

Ordinance 20-47

O'ahu GHG Emissions Inventory by Year

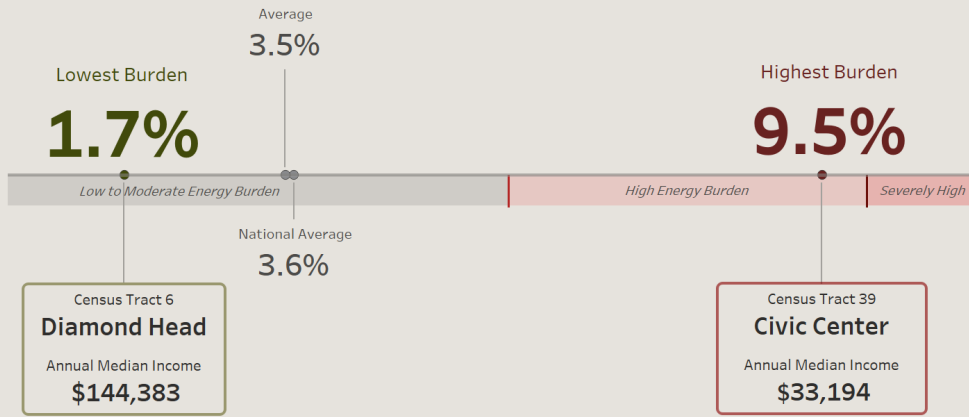


O'ahu GHG Emissions Inventory, 2019



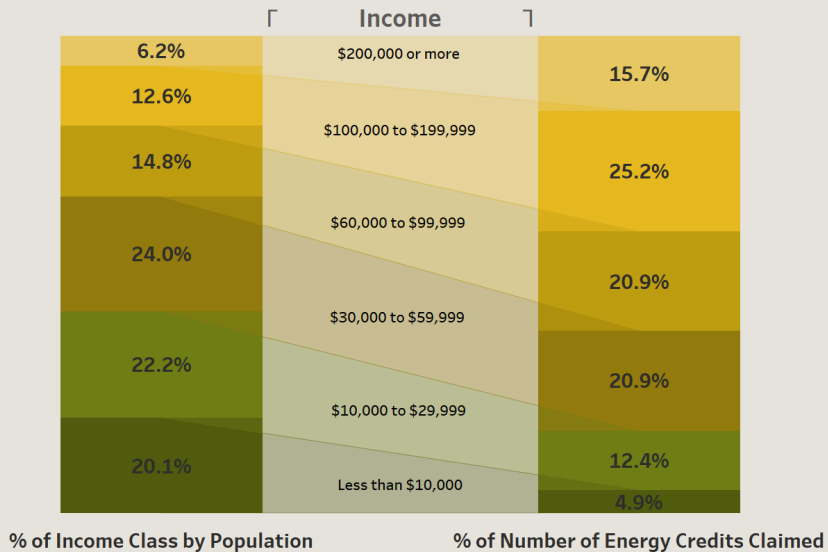
EQUITY INDICATORS

O'ahu Average Energy Burden, 2018



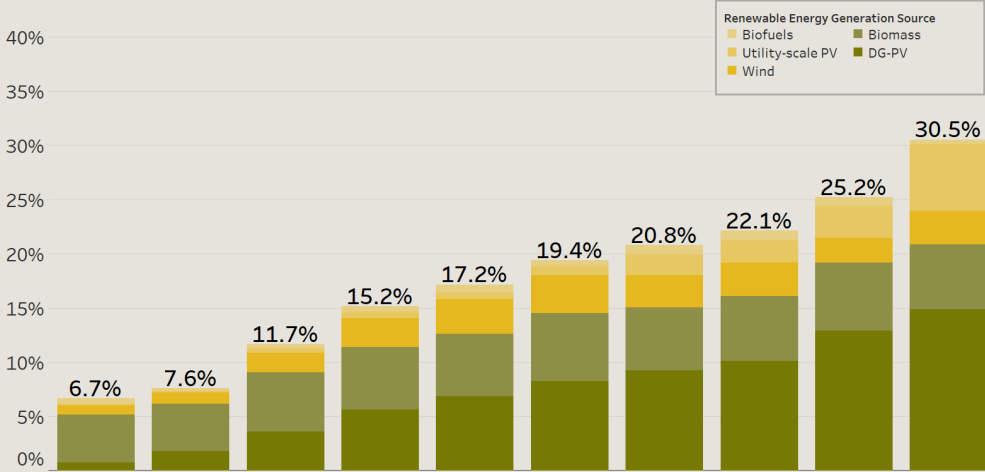
Energy burden: the percentage of household income spent on home energy bills.
A high energy burden is considered to be above 6% and a severe energy burden is above 10%.

Renewable Energy Tax Credits Claimed by Income, 2018
State of Hawaii



100% RENEWABLE ENERGY BY 2045 *Ordinance 20-47*

O'ahu Renewable Energy Generation



Climate Adaptation & Resilience

OBJECTIVE: Protect and preserve the natural environment by planning for natural and coastal hazards, integrating and protecting trees in development, maintaining a safe and reliable supply of water that supports long-term sustainability of the resource, and preparing for the impacts of climate change (O’ahu General Plan).

Environmental and cultural restoration is climate change adaptation. Integrated water and forest resource management are major elements of our island’s opportunity to address climate change stresses and shocks, including increasing temperatures and either too much or too little rainfall. Though 2020 slowed the previous pace of certain community-based stewardship activities like in-person Citizen Forester inventorying, other mālama ‘āina efforts were able to navigate evolving COVID-19 health and safety practices. This included continued City tree plantings along streets and in parks, as well as other large scale community tree plantings for both ecosystem restoration and carbon pollution sequestration.

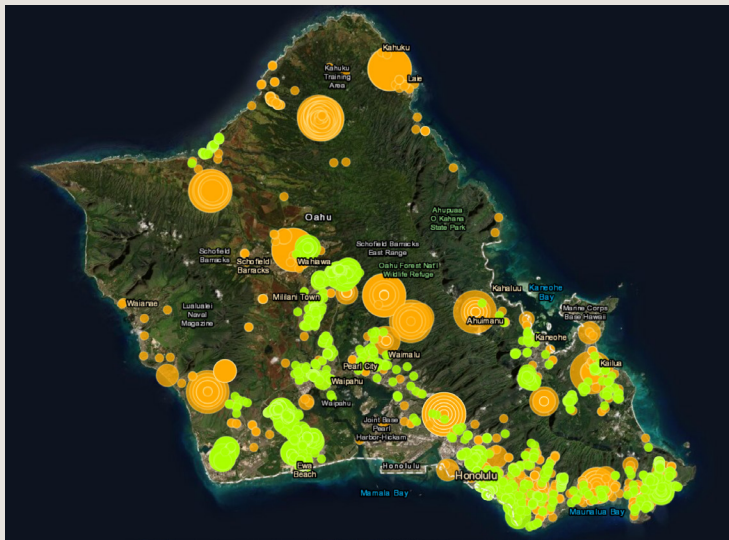
In late December 2020, the City adopted a One Water climate adaptation policy via Ordinance 20-47, which calls on City agencies to take collaborative and proactive adaptation actions for City infrastructure systems, addressing integrated resource planning and implementation of freshwater, wastewater, and stormwater resource management for long-term resilience and reliability, meeting both community and ecosystems needs. Part of that includes only using precious fresh water for those uses that need it and becoming more efficient in our use of wai. Though recycled water use on O’ahu increased to address non-potable demand, our individual per capita water use continues to increase.

2020 Martin Luther King Jr. Day of Service tree planting at Hāmākua Marsh State Wildlife Sanctuary with Healthy Climate Communities



PLANT 100,000 TREES BY 2025

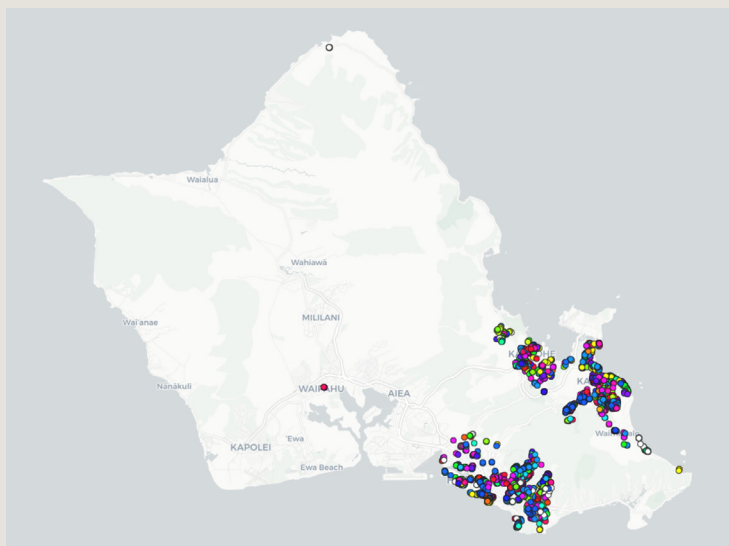
Department of Parks and Recreation 2019 Functional Plan



As of December 31, 2020, at least **45,672** trees have been planted by the community and the City across O'ahu since December 2017. This is up from **29,772** trees planted by the end of the previous year.

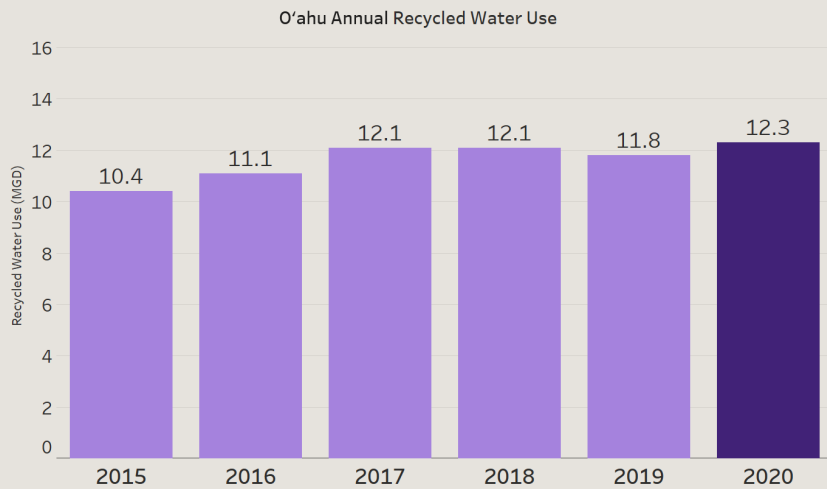
INCREASE URBAN TREE CANOPY COVER TO 35% BY 2035

Resolution 18-55

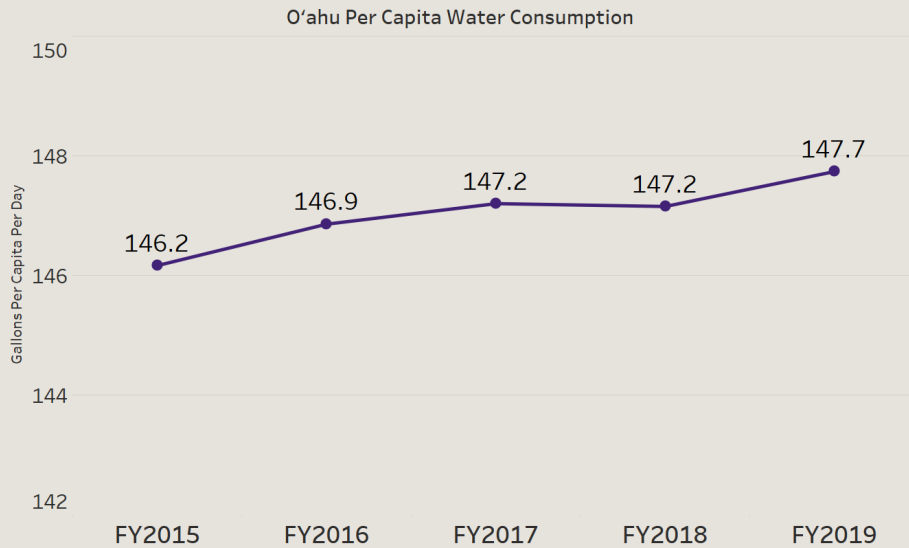


Since 2017, **219** Citizen Forester volunteers mapped and assessed **15,206** city street and park trees across O'ahu, up from **14,253** trees the previous year.

DOUBLE THE AMOUNT OF WASTEWATER REUSED BY 2030 (FROM 2015)
Board of Water Supply Water Master Plan



REDUCE PER CAPITA WATER CONSUMPTION TO 145 GALLONS PER DAY BY 2040
Board of Water Supply Water Master Plan





Sustainable Waste Management

OBJECTIVE: Manage an integrated and sustainable waste system that minimizes the generation of waste, maximizes waste recovery, and provides safe, reliable, and environmentally sound waste collection and waste disposal services (O’ahu General Plan & 2019 Integrated Solid Waste Management Plan).

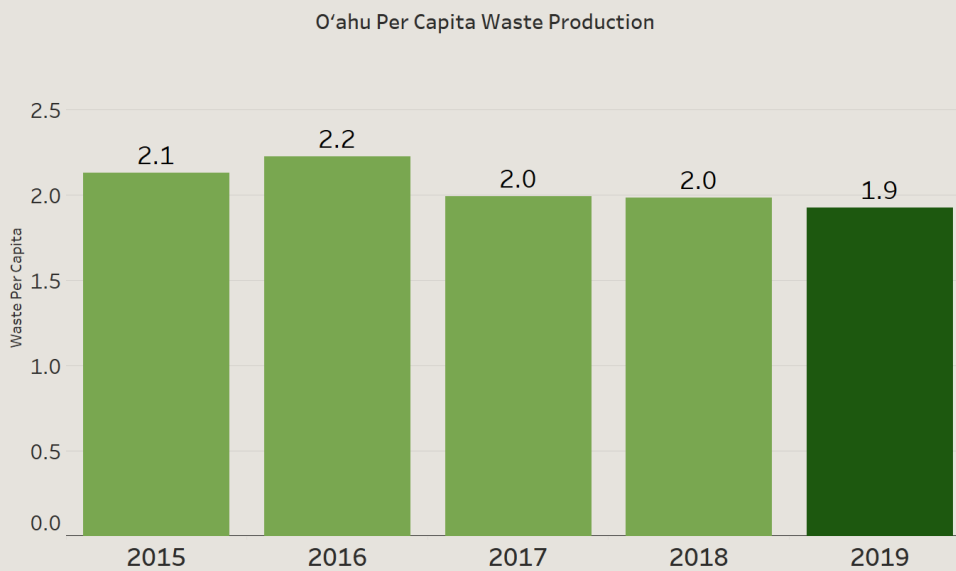
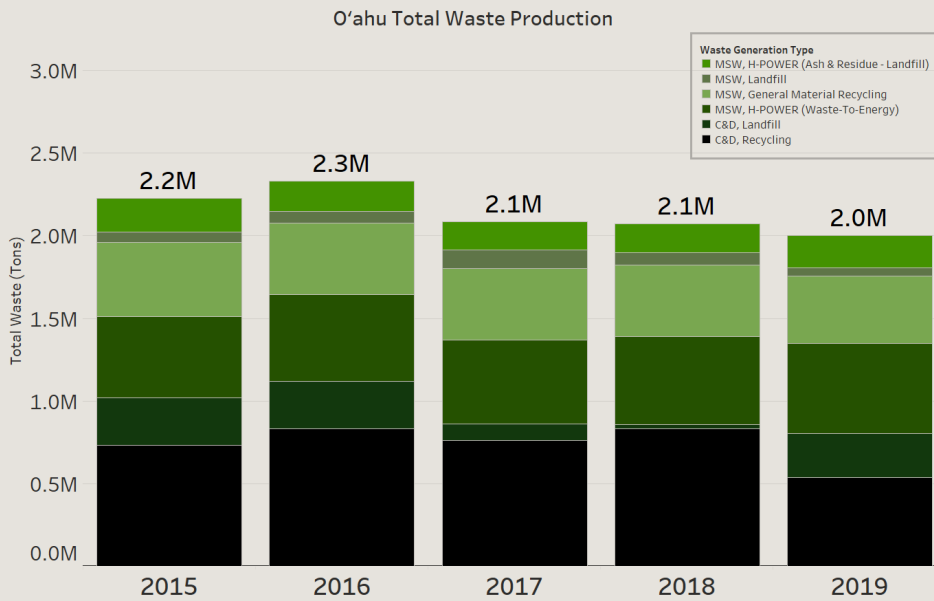
At the time of this report, only calendar year 2019 waste data was available for review. While we expect next year’s report to show new impacts to the waste system due to the COVID-19 pandemic, this report indicates that pre-COVID trends show us that there is room for improvement when it comes to reaching our sustainable waste management objective.

Overall, O’ahu generated 3.5% less waste in 2019 than the year before, putting us a little bit closer to reaching our waste generation per capita reduction

target. However, we sent 86% more waste to the landfills in 2019 than the year before, putting us slightly behind in reaching our waste diversion target. This was primarily due to major refurbishment projects, which caused some waste that would normally go to H-POWER to be diverted to the landfill. At the same time, we recycled 27% less of our waste, largely due to a decrease in construction and demolition recycling because material that could potentially be reused was temporarily being stored at the landfill rather than being recycled.

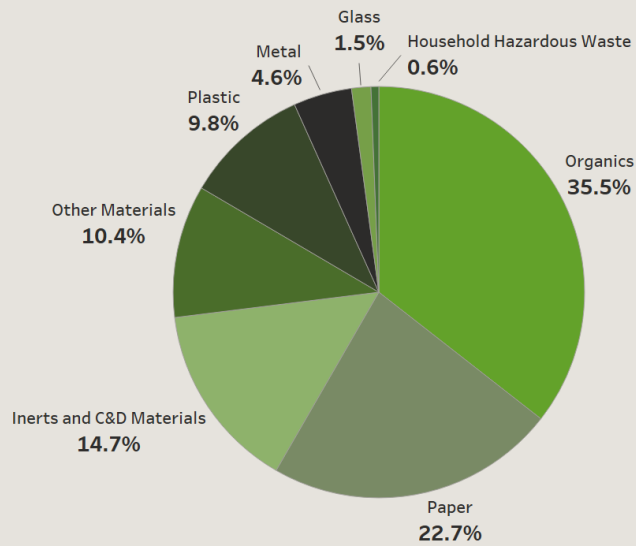


REDUCE PER CAPITA WASTE GENERATION BY 25% BY 2030
2019 Integrated Solid Waste Management Plan



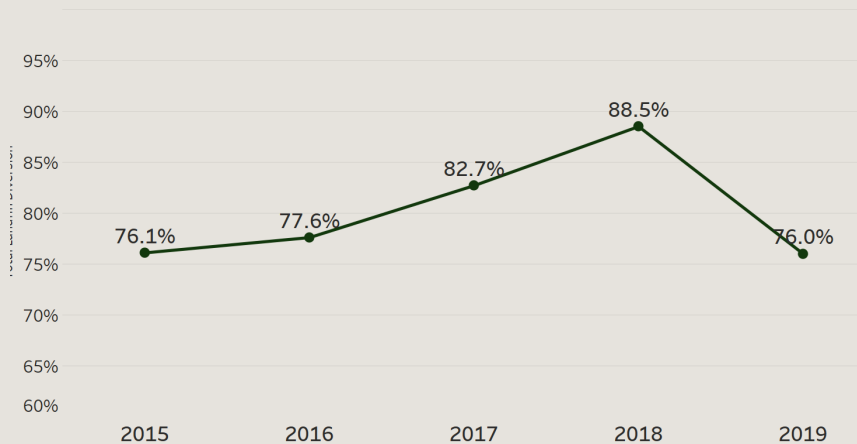
REDUCE SINGLE-USE PLASTICS IN THE WASTE STREAM
2019 Integrated Solid Waste Management Plan

2017 O'ahu Waste Composition

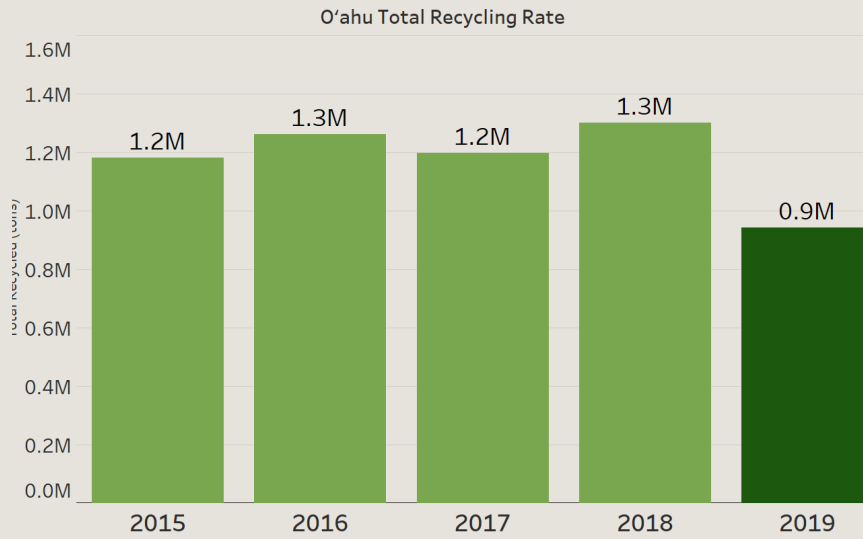


INCREASE LANDFILL DIVERSION RATE TO 95% BY 2030
2019 Integrated Solid Waste Management Plan

O'ahu Waste Diversion Rate



INCREASE RECYCLING RATE 10% BY 2030
2019 Integrated Solid Waste Management Plan



Disaster Preparedness

OBJECTIVE: Create disaster-ready communities that protect residents, visitors, and property against natural disasters, climate change, and other emergencies and enable cost-effective disaster recovery that enhances community resiliency (O‘ahu General Plan).

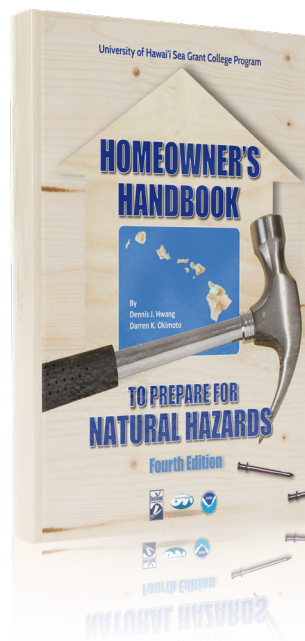
Disaster resilience is a whole community effort that is now more important than ever. According to the Union of Concerned Scientists, climate impacts in the U.S. cost the economy nearly \$100 billion in 2020, almost double the cost in the previous year. Most of these costs resulted from disasters.

With the threat of disasters increasing due to climate change, the City has been increasing investment and planning for disaster resilience. In 2020, the City was awarded over \$1.2 million in Federal Emergency Management Agency (FEMA) grant funding for disaster risk reduction projects, more than in any prior year. Federal funding for disaster risk reduction has historically only been readily available after a disaster occurs. New FEMA programs have increased the availability of funding before a disaster occurs to take proactive measures and the City will continue to pursue such competitive funding to increase disaster resilience and community safety.

Specialized training and outreach help increase community disaster resilience. Though COVID-19 disrupted the ability to deliver the in-person Community Emergency Response Team (CERT) training, disaster preparedness training continued with over 340 individuals receiving training through virtual platforms. In addition, over 60,000 individuals have signed up to receive disaster announcements

and other updates through HNL.info, either using the smartphone app or web-based system. Almost 10% percent of those registrations occurred in 2020.

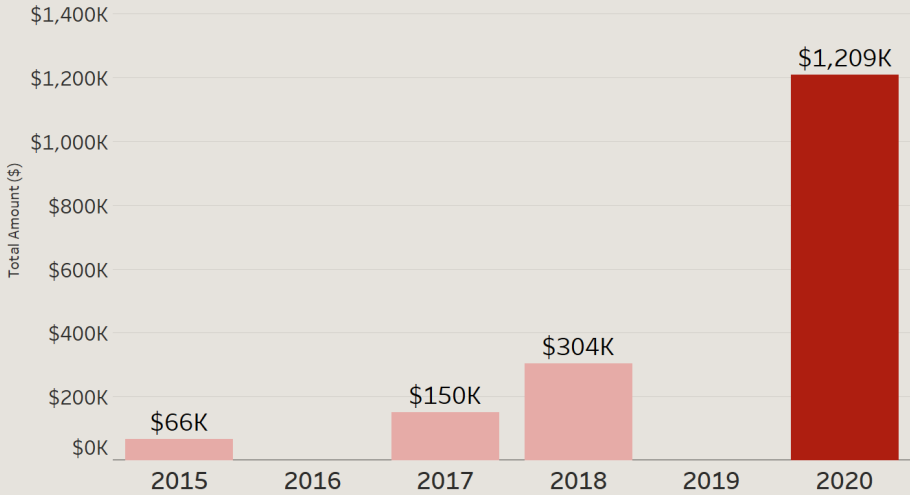
With over two-thirds of single-family homes on Oahu potentially lacking sufficient hurricane wind resistance, the City continues to support planning and outreach to homeowners to educate about retrofits. Resources such as the University of Hawai‘i Sea Grant College Program Homeowner’s Handbook to Prepare for Natural Hazards – Fourth Edition provide valuable information for individuals looking for ways to cost-effectively reduce disaster risk. The City continues to support and develop new ways to help reduce disaster risk on O‘ahu.



The Hawai‘i Sea Grant Homeowner’s Handbook to Prepare for Natural Hazards – Fourth Edition is a free resource with a wealth of information for personal disaster resilience. The Handbook covers many retrofit measures such as how to install the Hawaii Plantation Tie hurricane clip, adding window protection and strengthening roofs. A digital copy is available at: <https://bit.ly/homeowners-handbook-4>.

MAXIMIZING FUNDING OPPORTUNITIES

Federal Hazard Mitigation Funding Awarded



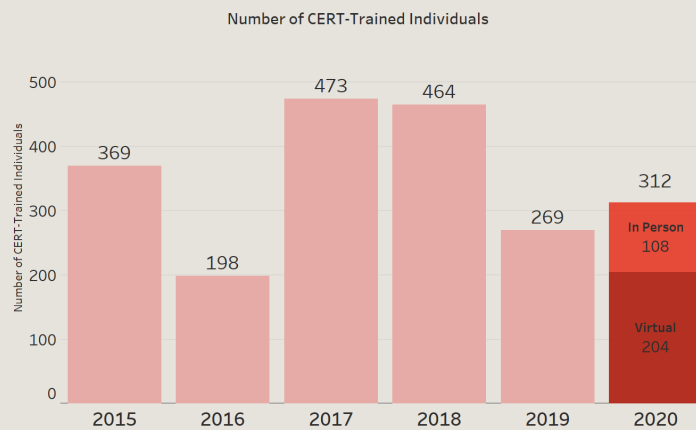
MONITORING INFRASTRUCTURE



Approximately **68%** of all single-family homes on O’ahu lack sufficient hurricane wind resistance and **45%** severely lack hurricane wind-resistance without retrofits due to single-wall construction before 1988 when codes were updated.

Disaster Preparedness

INCREASING COMMUNITY TRAINING



Due to COVID-19, the ability to offer in-person CERT training was severely limited. Throughout the year, **342** individuals received virtually-delivered disaster preparedness outreach training.

INCREASING COMMUNITY AWARENESS



The HNL.info app gives users real-time access to City disaster announcements and updates. **60,472** individuals have signed up to use the app so far, with **5,738** new users in 2020 alone. Sign up today!



Resilience Strategy Actions

Adopted as a guiding policy document for the City by Council Resolution 19-233, the O’ahu Resilience Strategy prioritizes 44 targeted Resilience Actions that directly address challenges of long-term affordability and needs for economic diversification; taking measures before hazard events; eliminating the root cause of global heating and climate change—carbon pollution—while preparing people and place for the impacts of a changing climate; and increasing community cohesion and resilience to address necessary change.

While 2020 provided plenty of change, ensuring continued implementation of underway actions and planning for those not yet started remains a priority for the City. With 29 out of 44 actions already underway, some major progress was achieved on these critical community resilience-building initiatives in 2020.

In December 2020, Honolulu City Council passed Ordinance 20-44, which streamlines the permitting procedures for residential clean energy and electric vehicle charging projects. These updates to the permitting process will lead to more renewable energy on our island and lower costs for residents. And, with the inclusion of new procedures for townhomes and multifamily units in online permitting, a whole new market has opened to allow for more equitable access to clean energy for even more residents, while creating new jobs in the clean energy sector.

► **Resilience Action 6 - Expand Affordable Housing and Energy Transformation by Accelerating the Permitting Process**

In December 2020, City Council passed Ordinance 20-41, a critical update to Honolulu’s decades-old parking and land use regulations. The Ordinance eliminates the minimum parking requirements for new homes and businesses in areas well-served by transit, enabling developers to right-size parking to meet market demand. Where 22% of renter households in urban Honolulu do not own cars and almost 60% of renters island-wide have one or nor car, these parking updates promote affordability and design that supports and accommodates sustainable transportation options like walking, biking, and public transit.

► **Resilience Action 8 - Increase Housing Affordability by Reducing Parking Requirements**

In September 2020, the City launched Climate Ready O’ahu, or development of a climate adaptation strategy, which is assessing island-wide risks, evaluating climate impacts on infrastructure and people, and prioritizing actionable adaptation strategies to address high priority risks. To inform the development and completion of an island-wide climate risk assessment, Climate Ready O’ahu initiated three rounds of Community Advisory Hui meetings and public workshops, interviews and workshops with City agencies, and received direct inputs from more than 900 residents and community leaders in support of prioritizing adaptation hazard areas and developing an equity screen for any proposed adaptation actions. Work continues through 2021.

► **Resilience Action 28 - Chart a Climate Resilient Future by Creating and Implementing a Climate Adaptation Strategy**

Ordinance 20-41 advances Resilience Action 8 by streamlining online permitting for residential clean energy projects, increasing access to affordable renewable energy options for even more residents on island.



PILLAR I.

Remaining Rooted

Ensuring an Affordable Future for Our Island

Our place-based culture has the highest quality of life—and highest cost of living—in the nation. The City will invest in long-term solutions that increase self-sufficiency, reduce out-of-pocket expenses, and assure our community stay intact.

Goals / Actions

GOAL 1

Supporting Affordable Housing Development

- 1 Reduce Empty Homes and Increase Affordable Housing Funding
- 2 Return Illegal Vacation Rental Units to Local Housing
- 3 Develop Alternative, Affordable Housing Options for O'ahu Residents
- 4 Expand Affordable Housing Funding by Implementing Progressive Property Taxes
- 5 Implement a Guaranteed Security Program to Support Local Home Ownership

GOAL 2

Reducing Additional Cost Burdens

- 6 Expand Housing and Energy Transformation by Accelerating the Permitting Process
- 7 Reduce Utility Costs for Residents through Transparency and Disclosure
- 8 Increase Housing Affordability by Reducing Parking Requirements

GOAL 3

Improving Economic Opportunity

- 9 Foster an Innovation Economy through the City's Office of Economic Development
- 10 Promote New Agricultural Models for Economic and Food Security

PILLAR II.

Bouncing Forward

Fostering Resilience in the Face of Natural Disasters

The threats from hurricanes, flooding, and extreme weather are on the rise. The City will work with individuals, neighborhoods, and institutions to be prepared to absorb these blows and rebound in ways that put our entire community on stronger footing for each successive event.

Goals / Actions

GOAL 1

Pre-Disaster Preparation

- 11 Protect Lives and Property by Updating Building Codes
- 12 Launch Residential Hurricane Retrofit Program to Strengthen Properties Vulnerable to Hurricanes
- 13 Increase Flood Insurance Affordability for O'ahu Residents
- 14 Establish Future Conditions Climate Resilience Design Guidelines

GOAL 2

Effective Disaster Response

- 15 Develop a Network of Community Resilience Hubs
- 16 Establish an O'ahu Emergency Food Supply and Storage Strategy
- 17 Ensure Access to Fuel Supplies to Aid Disaster Response and Recovery
- 18 Increase O'ahu's Preparedness Utilizing Scenario Modeling and Artificial Intelligence

GOAL 3

Successful Disaster Recovery

- 19 Develop and Implement a Long-Term Disaster Recovery Plan for O'ahu

PILLAR III.

Climate Security

Tackling Climate Change by Reducing Emissions and Adapting to Impacts

The climate crisis is the biggest challenge humanity has ever faced, and as an island society we are facing the impacts first. The City must transition to a 100 percent clean energy economy as rapidly as possible and begin changing policies and our infrastructure to protect lives and property that are increasingly in harm's way.

Goals / Actions

GOAL 1

Clean Energy Economy

- 20 Reduce Taxpayer Expense and Increase Renewable Energy through a City-Wide Energy Performance Contract
- 21 Establish an Energy Benchmarking Standard for O'ahu Commercial Buildings
- 22 District Cooling: Tap the Ocean to Cool Our Buildings
- 23 Expand Opportunities for Methane Capture and Re-Use

GOAL 2

Clean Ground Transportation

- 24 Expand Electric Vehicle Charging Infrastructure Island-Wide
- 25 Accelerate Carbon-Free New Mobility Options
- 26 Ensure Equal Access to Sustainable Transportation Options and Cost Savings
- 27 Transform the City's Public Fleet to 100% Renewable Fuel by 2035

GOAL 3

Climate Resilient Future

- 28 Chart a Climate Resilient Future by Creating and Implementing a Climate Adaptation Strategy
- 29 Protect Beaches and Public Safety with Revised Shoreline Management Rules
- 30 Protect Coastal Property and Beaches Through Innovation and Partnerships
- 31 Establish a Storm Water Enterprise Fund to Better Finance Water Management
- 32 Deploy Sustainable Roof Systems to Manage Urban Heat and Rainfall
- 33 Keep O'ahu Cool by Maintaining and Enhancing the Community Forest
- 34 Minimize Economic and Property Risk within the Ala Wai Canal Watershed

PILLAR IV.

Community Cohesion

Leveraging the Strength and Leadership of Local Communities

Community is the essential element of resilience. The City must foster connectivity and collaboration to ensure that when we are presented with economic and environmental challenges, we will come together stronger and tighter as one island 'ohana that cares for all.

Goals / Actions

GOAL 1

Empower Grassroots Resilience Champions

- 35 Increase Coordination with Neighborhood Emergency Preparedness Groups
- 36 Increase City-Community Relationships through Volunteerism
- 37 Weave a Tighter Community With Neighborhood Gatherings
- 38 Empower Neighborhoods to Co-Design Safe and Complete Streets

GOAL 2

Communicate and Affirm Island Values





- 39 Celebrate O'ahu's Resilient Past and Future through Public Art
- 40 Lift Up Positive Examples of Island Values in Action
- 41 Launch a Place-Based Resilience Training Program for City Leadership
- 42 Foster Shared Understanding of Climate Change Island-Wide Through an Outreach Campaign

GOAL 3

Island-Wide Alignment

- 43 Ensure City Partnership in O'ahu's Collective Impact Resilience Efforts
- 44 Create a City-Community Liaison to Leverage Non-Profit and Volunteer Assets

KEY

-  Substantial Completion
-  Significant Progress
-  Action Initiated
-  Not Started

Grades & Rankings

While we recognize O’ahu is unique, it’s helpful to compare our progress to other communities as we all race to become more sustainable and resilient. Year over year, we will track our progress in these national benchmarks that we either report directly to or are measured against to continue to improve and progress over time.



Conclusion & Next Steps

All through COVID-19 response and recovery efforts, City agencies continued to find ways to maximize funding opportunities to improve efficiency and performance, benefiting operations and residents. The performance indicators contained within this Annual Sustainability Report will serve as a dashboard for years to come, providing a transparent accounting of our progress as an island community toward that safer and more secure future. Reporting is a foundation of good governance. It requires tangible goal setting, the collection of sound data, and measuring successes towards achieving our targets.

The commitments and achievements made by City leadership in 2020 to create and uphold local, state, national, and international goals have provided a strong foundation to accelerate and measure our work alongside community going forward.

Where 2020 tested our resilience, it also presented opportunities to rethink, reframe, and refocus on what is most important: our residents, our communities, and the ‘āina. The trends shown in this report will only shift in a positive direction if we all lend support together. If you would like to get involved in this island-wide effort, we welcome you to contact the Resilience Office at any time.

Contact the Resilience Office:
(808) 768-2277
resilientoahu@honolulu.gov
www.resilientoahu.org

What you can do:

Community resilience is a kākou effort. From City leadership to individual action, our collective efforts can drive the change we want to see. Here are a few ways you take action now to support our collective goals:

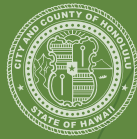
- Buy local food at one of the City’s People’s Open Markets. More local food means healthy people and a healthy local economy.
- Switch up your commute or the occasional errand by walking or biking instead of driving. Or try transit with one of TheBus’s new all-electric buses!
- Ditch the single-use plastic and remember to bring your reusable utensils when grabbing your next plate lunch.
- Stay informed! Sign up for emergency alerts at HNL.info and follow the Resilience Office on Instagram, Facebook, and Twitter at [@ResilientOahu](https://twitter.com/ResilientOahu) for more information on how we can protect our island home.

The number one resilience building tool is community. Talk about climate change, resilience, and sustainability with your friends, family and especially your neighbors. Together we can create a healthier, safer O’ahu that is ready for any shocks and stresses that may come our way.

CITY & COUNTY OF HONOLULU

Annual Sustainability Report

2021



Prepared by
OFFICE OF CLIMATE CHANGE,
SUSTAINABILITY & RESILIENCY

www.resilientoahu.org