OurCounty Data Gap Analysis

August 5, 2019

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Introduction

This document identifies various types of data that would be valuable for monitoring the progress and impact of OurCounty, but that are not currently available. While there is a widespread need for additional data across every aspect of sustainability, the data gaps described below represent the data team's assessment of the most important gaps as they relate to the OurCounty goals, targets, and indicators. The OurCounty Plan advocates for state, regional, county and local departments/agencies and researchers to collect this data and make it available to researchers and decision-makers.

Data Gaps

Goal 1: Resilient and healthy community environments where residents thrive in place

Strategy 1A: Minimize the exposure of vulnerable populations to pollution and reduce health disparities

Stationary and Mobile Toxic Air Pollutants

Frequent / real time measurements of toxic air pollutants within communities in proximity to large stationary and mobile emissions sources is needed. Implementation of AB 617, the Community Air Protection Program, is expected to generate data on pollutants, but there is currently a significant gap. Currently, air quality monitoring takes place at a limited number of monitoring stations across the County and for a limited number of pollutants. Multiple Air Toxics Exposure Study IV (MATES IV) studies include additional pollutants but results are published approximately every 5 years. Once additional data is generated, it can be used to identify which communities experience hazardous levels of exposure. Disaggregating exposure levels by small units of geography will inform the equitable development and targeting of interventions.

Industrial Compliance with Air Emission Permits

Implementation of AB617 is expected to provide this data, but it is currently a significant gap. The CARB website states that AB617 includes increased penalty fees on industrial sources, and greater transparency and availability of air quality and emissions data. Currently, obtaining information about industrial air emissions permit limits and compliance status is highly complex, time consuming, and inefficient.

Childhood Asthma Prevalence and Hospitalizations

The Los Angeles County Department of Public Health (DPH) survey data only provides estimates of the prevalence of childhood asthma at the health district level, along with estimates of the county-level prevalence of asthma among racial/ ethnic groups. The Office of Statewide Health Planning and Development (OSHPD) and the Department of Public Health have zip code-level data on the prevalence of childhood asthma and asthma hospitalizations, but requesting it is a time-consuming process which requires up to two different Institutional Review Board (IRB) processes. However, requesting, tracking, and mapping this data will allow for targeting of resources to the areas with the greatest prevalence/ number of hospitalizations for asthma attacks.

Water Quality at the Tap

There is inadequate monitoring for lead at the tap and in public drinking fountains. Lead contamination can be caused by the solder used in old pipes. While there are new laws in place for lead testing in public schools, there is no systematic data collection for homes at risk.

Strategy 1C: Increase housing affordability

Affordable Housing Need and Availability - by race/ethnicity

There is a need to track affordable housing progress by race/ ethnicity. Affordable housing as reported by the California Housing Partnership should also be reported as a percentage rather than total units because of changes in population size.

Strategy 1D: Ensure household utility affordability / Strategy 1E: Ensure access to safe, clean, affordable water

Water Pricing

Annual collection of data on water rates from all public water systems serving LA County would support a better understanding of residential household costs and geographic variations, which in turn supports the equity component of access to clean drinking water.

Strategy 1E: Ensure access to safe, clean, affordable water

Violations of Secondary Drinking Water Maximum Contaminant Levels (MCLs)

In addition to violations of primary MCLs, data on violations of secondary MCLs will give a more complete picture of drinking water quality and will support efforts to address lack of household confidence in drinking water and the use of high-priced water stores.

Strategy 1F: Develop community capacity to respond to emergencies

Community connectedness

The level of connection, trust, and cooperation between community members – also called social cohesion - has broad implications for public health and the economy, but is particularly important for capacity to respond to emergencies**.** There are existing sources of relevant data, such as data on volunteerism collected through the federal Current Population Survey, but there is no standard methodology for using that data to develop an index of community connectedness.

Goal 2: Buildings and infrastructure that support human health and resilience

Strategy 2A: Integrate climate adaptation and resilience into planning, building, infrastructure, and community development decisions

Vulnerable Buildings and Infrastructure

An inventory of buildings and infrastructure (both countywide and County-owned) that are vulnerable to flooding, sea level rise, wildfire, and other climate hazards, is essential for determining funding needs, prioritizing and scheduling investments and/or relocation, and tracking progress.

Households without Air Conditioning

The California Climate Change Health Equity Program lists households without air conditions as an indicator of adaptive capacity. However, the data comes from the California Energy Commission's 2009 Residential Appliance Saturation Study (RASS) survey which is conducted infrequently (next anticipated survey is 2020).

New and existing housing in high fire hazard area

Statistics on the number of new and existing housing units in high fire hazard area is not collected or tracked, but is important for understanding current climate vulnerabilities and trends.

Strategy 2C: Create an integrated and resilient water system

Groundwater Quality

There is not enough information on why the number of monitored wells for each contaminant changes over time. It may be due to certain contaminated wells becoming inactive, and therefore not required to be monitored; due to the complexities of individual system permits and the frequency of monitoring for various parameters; or even other factors that are unknown. With the constant changes in total number of monitored wells, it's very difficult to fully interpret year-to-year changes, or to set meaningful targets around improvements in the number or percent of wells found to exceed MCLs / comparison concentrations.

Imported Water used to Recharge Local Groundwater

Currently, the Metropolitan Water District of Southern California (MWD) makes countywide water source and volume data available; however, it is not possible to accurately assess the percent of total water sourced from local groundwater aquifers, because the amount of imported water used for groundwater recharge each year is unknown. While this information may be tracked by individual groundwater masters, there is no centralized source for such data.

Riparian Conditions

Open source data for riparian conditions exists but there is a need for a comprehensive map that plots all riparian habitat across the County. Satellite imagery would be helpful, and the benefit of using satellite imagery is that the updates will catch seasonal differences as well as annual differences to show trends over time.

Strategy 2D: Ensure a climate-appropriate, healthy urban tree canopy that is equitably distributed

Land Cover

There is a need to analyze the Los Angeles Region Imagery Acquisition Consortium (LARIAC) data on an annual basis to determine the land cover type percentages for the County and change over time. One important sub-indicator to track over time using this data should be land conversion from natural areas, significant ecological areas (SEAs), or working lands to other uses/ landscapes. This also impacts greenhouse gas (GHG) emissions.

Biodiversity

eBird and iNaturalist data represent great community science resources and their reliability will increase with usership and technological advances. There is a need to conduct targeted outreach efforts in areas of low usership to increase the geographical areas surveyed across the County and to help increase community engagement with biodiversity monitoring efforts. Despite the high potential of community science efforts, current data cannot be used to accurately assess species distributions. Current research is limited to natural areas. There is a need to invest in a monitoring program for biodiversity, especially within the urban environment to understand population size and distribution trends over time. The National Park Service, several research programs at UCLA, and the Nature Conservancy are all investing resources into this space, but a formal partnership with the County would ensure data is collected on a variety of species on an annual basis.

Goal 3: Equitable and sustainable land use and development without displacement

Strategy 3A: Increase housing density and limit urban sprawl

Sprawl and Displacement

There is no methodology and dataset available for sprawl. Also, as concerns of displacement increase, better data and methods for understanding displacement related to public investments would be useful for plan implementation. The Urban Displacement Project (www.urbandisplacement.org/map/socal) is a neighborhood change database created to better understand the locations of neighborhood transformations, and to identify areas that are vulnerable to gentrification and displacement in both transit and non-transit neighborhoods. However, this data is not collected regularly and requires consistent funding sources to continue.

Strategy 3B: Implement transit-oriented development

New Housing Built in TODs or HQTAs

New Housing Built in Transit Oriented Developments (TODs) or High-Quality Transit Areas (HQTAs) (recommended indicator; overlaps with Transportation indicators): There is a need to track housing development (new housing units), including affordable housing in TODs and HQTAs.

See Jurisdictions with Complete Streets/Active Transportation Plans (8A/8B)

Strategy 3D: Ensure that public investments do not facilitate displacement, particularly of disadvantaged communities

See Affordable Housing Need and Availability - by race/ethnicity (1C)

Strategy 3E: Limit development in high climate-hazard areas

See New and existing housing in high fire hazard area (2A)

Goal 4: A prosperous LA County that provides opportunities for all residents and businesses and supports the transition to a green economy

Strategy 4A: Promote inclusive growth across the changing economy

Workforce Development - training and placement program

There is a need to have a more complete inventory of County training and placement programs, and information on how many people have access to high-road careers and a "family-sustaining" wages, especially within growth sectors of the green economy.

Green Jobs Index

There is a need to define green jobs, and to develop a green jobs index (overall and training programs) and track green jobs across sectors throughout the County. There is no specific standard for defining and tracking green jobs; however, this is something that the City of LA estimated for L.A.'s Green New Deal.

Gender and racial wage gap

Income disparities among people of different genders and racial/ethnic identities can improve our understanding of how inclusive the economy is and inform economic/workforce development planning.

Index on economic diversity and growth across the green economy

There is a need to monitor which and how many sectors/businesses are moving away from carbon-intensive practices and becoming more environmentally friendly. Relevant data might include growth in Board-priority industry clusters.

Strategy 4B: Support wealth-generating activities in disinvested neighborhoods

Business Assistance to Local Small Business Enterprise (LSBE), Disabled Veteran Business Enterprise (DVBE), and Social Enterprises (SE)

Until Financial Year 2016-2017, utilization data were incomplete for LSBE, DVBE, and SE. There is a need to expand certification and tracking to include Disadvantaged Business Enterprise (DBE), Minority Business Enterprise (MBE), and Women Business Enterprise (WBE) for a broader equity perspective.

Racial wealth gap

In addition to income, wealth is an important measure of economic inclusivity. Discriminatory practices such as redlining and predatory lending have made it difficult for people of color and their families to accrue wealth in the form of major assets such as houses. Data on the racial wealth gap can inform economic and housing policy.

Goal 5: Thriving ecosystems, habitats, and biodiversity

Strategy 5A: Increase ecosystem function, habitat quality, and connectivity, and prevent the loss of native biodiversity in the region

Sediment Transport

There is currently little quantitative understanding of how natural sediment transport processes that replenish habitats has been impacted by hydrologic modification of the region's waterways. There is a need to conduct a study to identify the amount of sediment transport necessary in order to restore or mimic these processes.

Invasive Species

iNaturalist can be used as a data source for monitoring invasive species as well as native species. UCLA's Biodiversity expert group created a list of 20 indicator species that represent the "worst offenders" (invasive species) currently established in the region. Monitoring these species and investing in measures to detect future potential invasions before they become widespread is integral to the preservation of native flora and fauna.

Light Pollution

Dr. Tom Gillespie (UCLA) has a map displaying night light across the County as part of the UCLA Biodiversity Atlas for LA County. Monitoring this data over time and setting targets to reduce light in critical habitat zones is an essential component of mitigating the impact of development on wildlife.

Natural Areas

Current available data to determine natural areas in the County are outdated (data is more than 10 years old). There is a need to partner with organizations such as JPL to calculate updates on natural area on an annual basis using satellite imagery.

Strategy 5B: Preserve and enhance open space, waterways, and priority ecological areas

Access to Parks and Open Space

The Park Needs Assessment does not measure both access to natural areas/beaches and access through public transit, There is a need to analyze this information on an annual basis.

Habitat Connectivity

Currently there is no data available to accurately describe habitat connectivity in the County, and change in connectivity over time. This is an important indicator that would aid in prioritizing land use for improved biodiversity and ecosystem health. General habitat connectivity can be assessed through the use of modelling tools like Fragstat that can be applied to natural area spatial data. However, this requires updated natural area data that currently does not exist (see above) and is often too general to address all species. Habitat connectivity can also be modeled for select indicator species from a range of taxa groups to better understand the potential barriers for dispersal and mating for each species. Genomics is a way to assess this by studying current populations and quantifying their genetic differences to determine the spatial boundaries that divide distinct populations. This is currently being applied to 22 species in the Los Angeles region by Dr. Brad Shaffer's lab at UCLA. Data should be available within two to three years and would provide the baseline for this indicator. There is a need to monitor connectivity over time once the baseline is established.

See Natural Areas (5A)

See Riparian Conditions (2C)

See Land Cover (2D)

See Biodiversity (2D)

Goal 6: Accessible parks, beaches, recreational waters, public lands, and public spaces that create opportunities for respite, recreation, ecological discovery and cultural activities

Strategy 6A: Improve access to parks, beaches, recreational waters, public lands, and public spaces

See Access to Parks and Open Space (5B)

Strategy 6B: Adopt inclusive design and programming for parks, beaches, public lands, cultural amenities and public spaces

Accessibility and usage of public spaces

There is little data collected on how the population uses public spaces. Survey or counter data can be collected frequently to understand the population that reported visiting public lands and/or recreational spaces on a monthly and annual basis.

Goal 7: A fossil fuel-free LA County

Strategy 7A: Transition to a zero-carbon energy system that reduces air and climate pollution and that minimizes the dangers of a changing climate to our communities and economy

Community-wide Building Energy Disclosure

While the Energy Atlas contains data on building electricity and natural gas consumption in the County, its use is greatly restricted due to the California Public Utilities Commission's "15/15 rule". This rule requires that aggregated data include a minimum of 15 customers with no one customer's load exceeding 15 percent of the group's energy consumption. In the context of the community-wide greenhouse gas inventory, the rule means that actual energy consumption data for large users -particularly in the institutional and industrial sectors - cannot be made public, and also requires masking of associated consumption values for users within that same sector and geography. While this is not a gap in the availability of the data, per se, it effectively prevents the full use of that data. Revamping of data aggregation rules at the State level would result in greater detail and utility of the County GHG inventory.

Distributed Renewable Energy Generation

There does not appear to be one reliable and centralized source for data on distributed generation. The data used for this indicator is a combination of historical publicly-owned utility (POU) SB1 reporting, investor-owned utility data for Southern California Edison (SCE) limited to LA County, and the 2018 update of the POU reporting due to the fact that the full data set is not available through CaliforniaDGStats.

Institutional Building Area

Institutional building square-footage data: Parcel data collected by the LA County Tax Assessor's Office is used by the Energy Atlas to link account-level energy consumption with building attributes, such as square-footage, vintage, and use type, in order to develop a deeper understanding of energy use. This data was also used to develop countywide Business-as-Usual (BAU) projections. However, parcel square-footage data in the Assessor's database for institutional buildings is often inaccurate (presumably because institutional buildings are exempt from property taxes). This leads to an inability to understand the variation in institution energy use intensities (EUIs) across the County. It also causes significant inaccuracies when estimating institutional consumption using EUIs, which is done to overcome the energy data disclosure problem (described above under "Climate"), which leads to high uncertainty around institutional building energy consumption and associated GHG emissions. An initiative to collect accurate parcel data for institutional buildings and update the County Assessor's database would greatly improve the understanding of energy use / GHG emissions from this sector.

Goal 8: A convenient, safe, clean, and affordable transportation system that enhances mobility and quality of life while reducing car dependency

Strategy 8A: Reduce vehicle miles traveled by prioritizing alternatives to single-occupancy vehicles

Commute Mode Share and Commute Time - Non-commute

There is a need to track non-commute transportation data for the County. Much of the current transportation system's infrastructure and programming focuses on commuters and commute trips, while a substantial share of trips is likely for non-commute purposes. Non-commute trips also include trips for household purposes, which are disproportionately traveled by women. Information on non-commute trips are infrequently collected for transportation planning purposes. Better local data on non-commute could better inform air quality planning, transportation planning, and social services.

Jurisdictions with Complete Streets/Active Transportation Plans

Jurisdictions with Complete Streets Policies and Active Transportation Plans are not being tracked.

Strategy 8B: Improve transportation health and safety outcomes

See Jurisdictions with Complete Streets/Active Transportation Plans (8A)

Goal 9: Sustainable production and consumption of resources

Strategy 9A: Reduce waste generation

Amount of Waste Generation by Type and Destination

Implementation of AB901, Recycling and Disposal Facility Reporting, and SB1383, Organic Waste Methane Emissions Reduction, within the next one to three years should provide this data, but it is currently a significant gap. This data is needed to understand trends in the generation and diversion of various waste types, and to answer questions about amounts of recyclables, generation place of origin, and ultimate disposition location.

Goal 10: A sustainable and just food system that enhances access to affordable, local, and healthy food

Strategy 10A: Improve access to healthy food

Cardiovascular Disease and Diabetes Mortality

The Los Angeles County Department of Public Health (DPH) survey data provides very little data on the prevalence of cardiovascular disease and diabetes. The Office of Statewide Health Planning and Development (OSHPD) vital statistics data provides a historical record of changes in mortality rates, but requesting the data requires a 6-month lead time and an IRB process. This data can be requested from another state or local public health department instead of a County Department-led IRB process.

Food Retail Environment

The food retail environment index leaves out a number of smaller food retailers (like ethnic food markets and small corner groceries, food trucks) and classifies others as "unhealthy" based on a low number of employees, not having WIC or CalFresh authorization, or low sales volume. This can be highly inaccurate. There is a need for more complete data, as well as better data-collection and -analysis methodologies.

Strategy 10B: Support the fair and sustainable production of food

Economic and Environmental Impacts of the Food Supply

Globally, agriculture and other food production / distribution activities are a significant source of greenhouse gases. The production and distribution of food also affects water and land use, air quality, and the economic well-being of workers across the food chain. Although the majority of the food supply for LA County is not produced here, the sheer volume of food needed to sustain our large County population means that consumption habits in LA have an outsize impact on the environmental and labor practices of farms, producers, and distributors across the state, country, and world. More and better data on the LA County food supply (such as percent of food produced within a 200-mile radius) and practices within the respective supply chains (such as land use, pesticide/water/antibiotic use and worker wages/health) could inform food policy.

Goal/Strategy	Data Gap	Data Gap Issue
1A	Stationary and Mobile Toxic Air Pollutants	Data not collected annually
		Limited data points
1A	Industrial Compliance with Air Emission Permits	Inaccessible data source
1A	Childhood Asthma Prevalence and Hospitalizations	Restricted data
1A	Water Quality at the Tap	No data available
1C & 3D	Affordable Housing Need and Availability - by race/ethnicity	No data available
1D & 1E	Water Pricing	Data not collected annually
		Limited data point
1E	Violations of Secondary Drinking Water MCLs	No data available
1F	Community Connectedness	No methodology available
2A	Vulnerable Buildings and Infrastructure	No data available
2A & 2B	Households without Air Conditioning	Data not collected annually
2A & 3E	New and existing housing in high fire hazard area	No data available
2C	Groundwater Quality	Data not collected annually
		Limited data points

2C	Imported Water used to Recharge Local Groundwater	Inaccessible data source
2C & 5B	Riparian Conditions	Limited data point
2D & 5B	Land Cover	Data not collected annually
2D & 5B	Biodiversity	Limited data point
3A	Sprawl and Displacement	No methodology available
		Data not collected annually
3B	New Housing Built in TODs or HQTAs	No data available
4A	Workforce Development - training and placement program	Limited data points
4A	Green Jobs Index	No methodology available
4A	Gender and Racial Wage Gap	Data not collected annually
4A	Index on economic diversity and growth across the green economy	No methodology available
4B	Business Assistance to Local Small Business Enterprise (LSBE), Disabled Veteran Business Enterprise (DVBE), and Social Enterprises (SE)	Limited data points
4B	Racial Wealth Gap	No data available
5A	Sediment Transport	No data available
5A	Invasive Species	Data not collected annually
5A	Light Pollution	Data not collected annually
5A & 5B	Natural Areas	Data not collected annually
5B	Habitat Connectivity	No data available
5B & 6A	Access to Parks and Open Space	No data available

6B	Accessibility and usage of public spaces	No data available
7A	Community-wide Building Energy Disclosure	Restricted data
7A	Distributed Renewable Energy Generation	Inaccessible data
7A	Institutional Building Area	Inaccurate data
8A	Commute Mode Share and Commute Time - Non-commute	No data available
8A & 8B, 3B	Jurisdictions with Complete Streets/Active Transportation Plans	Limited data point
9A	Amount of Waste Generation by Type and Destination	No data available
10A	Cardiovascular Disease and Diabetes Mortality	Restricted data
10A	Food Retail Environment	Limited data point
		Inaccurate data
10B	Economic and Environmental Impacts of the Food Supply	Limited data